

**UNIVERSIDAD DE NAVARRA
FACULTAD DE COMUNICACIÓN**

CONVERGENCE AND DIVERGENCE IN CONSUMER BEHAVIOR

**CONSEQUENCES
FOR
GLOBAL MARKETING AND ADVERTISING**

MARIEKE DE MOOIJ

DIRECTOR: ANGEL ARRESE

Tesis Doctoral presentada para optar al grado de
Doctor en Comunicación

Pamplona, 2001

Contents

	Page number
Chapter 1: Introduction	
1.1. Problem description	1
1.2. Methodology	2
1.3. Structure	3
1.4. Main challenge	4
1.5. Process and Acknowledgements	4
Chapter 2: Literature	
2.1. Standardization versus adaptation	6
2.1.1. The debate	7
2.1.2. The conditions for successful standardization	11
2.1.3. Global communities	12
2.1.4. Empirical studies	15
2.1.4.1. Surveys among managers	15
2.1.4.2. Effect of standardization on performance and ROI	18
2.2. Convergence-Divergence	19
2.2.1. Convergence theory	21
2.2.2. The macro-micro dichotomy	21
2.2.3. The macro-micro dichotomy defined	24
2.2.4. Forms of convergence	25
2.2.5. Convergence-divergence in consumer behavior	26
2.2.6. Convergence-divergence in advertising practice	27
2.2.7. Empirical studies of convergence-divergence	28
2.3. Culture and values	29
2.3.1. Culture defined	30
2.3.2. Dimensions of culture	31
2.3.2.1. Kluckhohn and Strodtbeck: Five value orientations	32
2.3.2.2. Hall: High and Low Context	32
2.3.2.3. Hofstede: Five dimensions of national culture	33
2.3.2.4. Schwartz: Seven value types or motivational domains	38
2.3.2.5. Smith and Trompenaars: Seven value dimensions	39
2.3.2.6. Choice of model	39
2.3.3. Values	41
2.3.3.1. Values are stable	43
2.3.3.2. Value domains	46
2.4. Advertising, Culture and the Consumer	47
2.4.1. Advertising and culture	48
2.4.2. The search for a theoretical framework	50
2.4.3. The concept of the rational consumer	53
2.4.4. The intermediary variables	53

2.4.4.1. Attitudes	53
2.4.4.2. Lifestyle	54
2.4.4.3. The concept of self and personality	56
2.4.5. Processes	57
2.4.5.1. Motivation	57
2.4.5.2. Emotion	58
2.4.5.3. Information processing	59
2.4.5.4. Decision-making	60
2.4.6. Consumer behavior domains	63
2.4.6.1. Consumption, ownership and usage across cultures	63
2.4.6.2. Diffusion of innovations	64
2.4.6.3. Complaining behavior	67
2.4.6.4. Brand loyalty	68
2.4.6.5. Responses to advertising	68
2.4.6.6. Media usage	69
2.5. Conclusions	70

Chapter 3: Adopting a cross-cultural research methodology

3.1. Methodology	72
3.1.1. Cross-cultural comparative research	72
3.1.2. Variables used in cross-cultural consumer research	74
3.1.2.1. National income	75
3.1.2.2. Indirect measures of national income	76
3.1.2.3. Cultural values	78
3.1.3. Level of analysis and data types	79
3.1.3.1. Level of analysis	80
3.1.3.2. Data types	81
3.1.3.3. Macro- and micro-level data	82
3.2. Choice of methodology	83
3.2.1. Sources	83
3.2.2. Groups of countries	84
3.2.3. Measuring convergence-divergence	85
3.2.4. Measuring relationships	85
3.3. Choice of independent variables	86
3.3.1. Interdependence of variables	87
3.3.2. Income	88
3.3.3. Cultural variables and Climate	89
3.3.4. Socio-demographic indicators	92
3.4. Hierarchies and product constellations	96
3.4.1. Hierarchies	96
3.4.2. Product constellations	97
3.5. Data and data sources	98
3.6. Conclusions	99

Chapter 4: Convergence-divergence

4.1.	The macro-level: Socio-economic variables	102
4.1.1.	National income	103
4.1.2.	Urbanization	104
4.1.3.	Education	104
4.1.4.	Health	105
4.1.5.	Housing	106
4.1.6.	Women: Work and Education	107
4.2.	Communication and technology	108
4.2.1.	Telephone main lines	109
4.2.2.	Passenger cars	110
4.2.2.1.	Number of cars owned	112
4.2.2.2.	Type of car owned	113
4.2.2.3.	Preference of new cars over second hand cars	113
4.2.2.4.	Attitudes to technology and buying influence	114
4.2.3.	Television	114
4.2.3.1.	Income and culture to explain variance	115
4.2.3.2.	Numbers of TV sets and VCR penetration	116
4.2.3.3.	Viewing time	116
4.2.4.	Radio	117
4.2.5.	The press	118
4.2.5.1.	Newspapers	118
4.2.5.2.	Book readership	121
4.2.6.	Advertising expenditures	122
4.3.	The structure of private consumption	123
4.3.1.	Food	125
4.3.2.	Clothing and footwear	127
4.3.3.	Fuel and power	127
4.3.4.	Health and medical care expenditures	128
4.3.5.	Transport and communications	129
4.3.6.	Leisure and entertainment	129
4.3.7.	Furniture, furnishing and household equipment	129
4.4.	Food, beverages, alcohol and cigarettes	130
4.4.1.	Food	131
4.4.1.1.	Processed food	132
4.4.1.2.	Fresh fruit and groceries	133
4.4.2.	Beverages	134
4.4.2.1.	Mineral water and soft drinks in Europe	136
4.4.3.	Cigarettes and alcohol	137
4.5.	Consumer electronics	138
4.5.1.	The communication means of the new economy	139
4.5.1.1.	The Internet in Europe	139
4.5.2.	Consumer electronics: Audio	142
4.5.3.	Household appliances	143
4.6.	Personal and household products	144
4.6.1.	Personal products: Watches and Cameras	144
4.6.1.1.	Watches	144

4.6.1.1.1. Number of watches owned	145
4.6.1.1.2. Watch brands	145
4.6.1.2. Cameras	146
4.6.2. Personal products	147
4.6.2.1. Personal (care) products	147
4.6.2.2. Personal care products in Europe	148
4.6.3. Luxury products	149
4.6.4. Household cleaning products	151
4.7. Finance	152
4.7.1. Credit cards	152
4.7.2. Insurance and investments	153
4.8. Values	154
4.8.1. General life satisfaction	154
4.8.2. World Values Survey: Comparison Worldwide and Europe	155
4.9. Summary of findings	156
4.9.1. Convergence-Stability-Divergence	156
4.9.2. Heterogeneity versus Homogeneity	158
4.9.3. The time factor	159
4.9.4. Patterns of convergence and divergence	160
4.9.4.1. Convergence masks diversity or divergence	160
4.9.4.2. Convergence	161
4.9.4.3. Convergence, stability, divergence and crossover	162
4.9.4.4. Thresholds of convergence	163
4.9.4.5. Parallel change	164
4.9.4.6. Divergence	165
4.9.5. What is newest changes fastest	166
4.9.6. No value change	167
4.9.7. Hierarchies of explaining variables	168
4.10. Conclusions	169

Chapter 5: Consequences for theory and practice

5.1. Consequences for consumer behavior theory	170
5.1.1. Culture and values: Value domains	171
5.1.1.1. Purity	171
5.1.1.2. Locus of control	173
5.1.1.3. Status	176
5.1.1.4. Active-passive in leisure: Sports and Art orientation	178
5.1.1.5. Dependence and harmony	179
5.1.1.6. Quality of life	180
5.1.2. The economic environment	182
5.1.2.1. The concept of the rational consumer	182
5.1.2.2. Engel's law	183
5.1.3. The intermediary variables	183
5.1.3.1. Attitude	183
5.1.3.2. Lifestyle	186
5.1.4. Processes	186
5.1.4.1. Motivation	186

5.1.4.2. Decision making	188
5.1.5. Consumer behavior domains	190
5.1.5.1. Diffusion of innovations	190
5.1.5.2. Media behavior	192
5.2. Consequences for practice	194
5.2.1. Stages of global market development	195
5.2.2. Branding strategies	196
5.2.3. Market research	197
5.2.4. Market segmentation by cultural values	198
5.2.4.1. Cosmetics	199
5.2.4.2. Passenger cars	200
5.2.5. Public policy and culture analysis	201
5.3. Conclusions	202

Chapter 6: Conclusions

6.1. The myths of global marketing	204
6.1.1. The myth of convergence	204
6.1.2. The myth of global advertising	206
6.1.3. The myth of global communities	207
6.1.4. The myth of culture-free products	208
6.1.5. The myth of the new media	209
6.2. Culture and consumption	210
6.2.1. Product categories are culture-specific	211
6.2.2. Explaining variables operate in hierarchies	211
6.2.3. Value domains	212
6.3. Culture and consumer behavior	212
6.3.1. The rational consumer and the role of income	212
6.3.2. Attitudes, motives, lifestyle and culture	213
6.3.3. Decision making behavior is not universal	213
6.3.4. Diffusion of innovations	214
6.3.5. Media and advertising	214
6.4. Consequences for practice	214
6.4.1. Consequences for strategy	214
6.4.2. Consequences for market research	215
6.5. Recommendations for further research	215
References	217
Appendix: Tables	235
Summary	303
Sumario (summary in Spanish)	307
Samenvatting (summary in Dutch)	313

CHAPTER 1

INTRODUCTION

The central question of this dissertation and its underlying research is: Are consumers worldwide becoming alike or will they remain different? The answer is relevant for international marketing and advertising. Advertising, to be effective must reflect people's values. If evidence is found that worldwide people's values, and thus what motivates them to prefer some products and brands to others, are different and remain different, it should be the end of standardized global advertising. This dissertation is about convergence-divergence in consumer behavior and about people's values and motives across countries. Understanding the differences between consumers is likely to change the way global advertising is approached.

1.1. PROBLEM DESCRIPTION

Since Ted Levitt (1983) published his article *The Globalization of Markets*, including the assumption that consumers' needs and motives worldwide would converge, both academia and the marketing and advertising profession have endorsed this viewpoint. For professionals the assumption of universality of human values is indeed convenient as it would enable global companies to develop standardized brands with standardized marketing and advertising programs across countries. The most heard argument for standardization is the benefit of economies of scale. The reasoning for standardization is all from the producer's point of view. The marketing paradigm "markets are people" seems to be forgotten along with the excitement of globalization. There are two arguments against the assumed universality of consumer behavior.

1. It is true that in the industrialized world incomes are converging, but there is no empirical evidence for the assumption that peoples' values will converge as a consequence. On the contrary, there is increasing evidence that higher income levels will lead to increased influence of value differences between nations. With increased wealth, latent cultural values become manifest.
2. Mainstream economic thinking has viewed consumers as rational human beings who make buying decisions as individuals. Only recently, behavioral economists go beyond the assumptions that people always behave in selfish or rational ways. Several theories have been developed that explain the influence of human motives, needs and values on consumption behavior. Most of these were developed in the USA, and reflect a US perspective. Many are not valid for the rest of the world or have to be adapted.

Because of the American perspective of consumer behavior, in the global market place focus has been on the similarities rather than on the differences. Most studies of consumer behavior across borders are based on US models and theories. One example is Maslow's (1954) theory, stating that there is an order of needs, which in many textbooks is

presented as a universal theory. However, depending both on climatic differences and socio-cultural differences, this order will vary. A research question is how this order varies across nations and if the role of climate and income will diminish over time. If non-physiological needs will be satisfied in different ways after physiological needs have been fulfilled, cultural influences are likely to be the relevant criteria to explain the differences. There are various orders in which consumers satisfy their needs.

There also are patterns of market development that vary across nations. The general pattern is that new products or new technologies, in the beginning of their life cycle will be adopted by the developed economies. Car ownership worldwide is linked with national wealth. Ownership of one car in 1970 in Europe was strongly linked with national wealth. In 1997 this link with wealth had disappeared. Instead, the difference between ownership of one car only versus more than one is culture-bound.

Climate is expected to be the decisive variable for differences in consumption of a number of food products. But differences in sub-categories can not be explained by climatic differences only. High temperatures will make people need to drink more, but what one drinks and why, is important knowledge for the producer of soft drinks. The choice between tap water, mineral water, soft drinks or fruit juices is driven by cultural values.

Increased importance of cultural differences will have implications for the strategies of global companies. Understanding the mechanism of culture can help global companies predict future consumption patterns and buying behavior.

Our research is meant to demonstrate that culture influences consumption and buying behavior and to prove the hypothesis that with converging incomes of countries, the importance of differences in national values will increase. This will be put into a theoretical framework.

To summarize our hypothesis:

Consumer behavior is culture-bound. Cultural differences are stable. With increased wealth instead of economic variables cultural variables explain and predict variance of consumer behavior across countries.

Current consumer behavior theories are not universally valid. They have to be adapted to different cultures. Value domains can be defined that explain variance in consumption patterns across cultures.

1.2. METHODOLOGY

Within nations socio-demographic and psychological factors tend to be used to explain variance of consumption. For international marketing we want to understand what it is about *nations* (systems) that influences phenomena to be explained. We want to understand the characteristics of the systems because of their impact on the behavior of individuals within these systems. For such comparison the most used units of analysis are nation-states because every aspect of the socio-cultural system is represented in nation-states. To test the convergence-divergence hypothesis meta-analysis is conducted of consumption and consumer behavior across nations.

The most used variable to compare nations for marketing purposes is national wealth (GNP/capita), but when countries converge with respect to national wealth its predictive power is declining. Next to national wealth we use cultural variables and compare these with secondary data of consumption and consumer behavior. The cultural variables used are by Geert Hofstede (1980, 1991, 2001).

Time-series are used and we compare a large, heterogeneous group of countries worldwide and homogeneous groups of countries of similar economic development to investigate the convergence-divergence thesis.

Economic and cultural variables are used as independent variables in correlation and regression analysis with consumption data at the national, aggregate level. The purpose is to find predictors of variance of consumption and consumer behavior across nations. Value domains are identified to help understand the various influences on consumer behavior across national cultures. Our findings are expected to lead to valid generalizations on the basis of cross-cultural similarities and differences. The results may serve as a basis for a theory on cross-cultural consumer behavior, marketing and advertising.

1.3. STRUCTURE

As we want to embed our findings in existing theories and research, in chapter two we first review the views on globalization in marketing and advertising as found in literature. This literature review also describes the concept of culture, value studies and relevant consumer behavior theories. We apply a framework of cross-cultural consumer behavior by Manrai and Manrai (1996) to structure the theoretical implications of our findings.

In chapter three we review cross-cultural research methodology and describe the variables to be used for our research, their interrelationship and our choice of variables. We explain the macro-micro dichotomy, the level of analysis and data types. We explain why we analyze a large volume of consumption and consumer behavior data from various sources and how we measure the relationship between income, culture and consumption data.

Chapter four describes our findings of convergence at macro level and stability or divergence at micro level. We describe our findings by product category and give examples of the stability of values over time. We extend our findings to a few lawlike generalizations.

In chapter five we discuss the consequences for theory and practice. We embed our findings in the theories described in our literature review in chapter two and we give examples of value domains that can be used to segment global markets. Our finding that with increased wealth many consumption habits do not converge and values of national culture become manifest, has consequences for the future of global advertising and for global market development.

In chapter six we summarize our conclusions. We point at the various myths of global marketing that are unearthed by our findings and at the main consequences for theory and practice.

1.4. MAIN CHALLENGE

Our area of study is relatively new. Although in marketing and advertising the numbers of comparative consumer studies are increasing, systematic comparison of consumption data with cultural variables is new. For the measurement of convergence-divergence there were few studies we could use for reference. The most important work to compare with our type of study is by Inkeles (1998), but his work does not cover consumer behavior.

The main problem encountered is the availability and comparability of the secondary data. Reliable time series data are scarce. There are several explanations for this scarcity. Most comparative studies are either proprietary or very expensive. Public domain data are generally collected by governments for other purposes than ours. Because computerized database management is only a recent phenomenon, the earlier the data, the lesser is the reliability.

We retrieved the early public domain data from university libraries. Next to the available data at the University of Navarra, data were collected at libraries in the Netherlands. Not all universities make statistics easily available to non-students. A number of trips to various libraries made us discover that an accessible university library for statistics is at the Free University of Amsterdam, so several trips were made to Amsterdam. Thanks to the fact that various statistical offices such as of the World Bank and the European Communities put recent statistics on the Internet, these could be downloaded from the Internet.

Generally, companies are not willing to provide proprietary data to academics because research costs are high and they don't want to share their data with the competition. Also, whatever available data are not easy to retrieve from the desks of the various researchers or product managers. On top of this, companies increasingly rely on external sources such as Euromonitor. For students, the costs of such databases are prohibitive. We did however, invest a considerable sum in a report by Euromonitor that was an invaluable source. We could, however, not use Euromonitor for time-series as there was a break in data collection methods in 1992. Next to this we were lucky to receive further data from business relations, in particular the EMS reports (© InterView International).

1.5. PROCESS AND ACKNOWLEDGEMENTS

Interest in the subject was raised during my work as Director of Education of the International Advertising Association (IAA) and Managing Director of BBDO College. When travelling the world for the IAA I encountered many advertising educators who could use only few of the theories of consumer behavior and advertising as presented in American or British textbooks. Global advertising rarely seemed to appeal to them either. Yet, the large international advertising agencies preached global universality of consumer values. Doubts of the effectiveness of global advertising were only supported by anecdotal evidence. I realized that only a structured approach could demonstrate the unsustainability of global standardized approaches. Geert Hofstede's model was the answer. Although based on work-related values, it appeared to be useful for understanding culture's consequence for consumer behavior. I applied the model first to advertising and described my findings in the book "Global Marketing and Advertising, Understanding Cultural Paradoxes". My publisher, Sage publications asked John Philip

Jones to review the manuscript and his major comment was that in the manuscript empirical evidence of the relationship between consumer behavior and culture was lacking. He was right.

Coincidentally at the same time I entered a venture with InterView International in Amsterdam to co-operate on developing international research models for advertising. InterView International was also the producer of the European Media and Marketing Survey and Marion Appel provided me with data from EMS, but also lent me the Reader's Digest Report 1991. Geert Hofstede appeared to have the Reader's Digest Report of 1970. These combined reports, all fully or partly sponsored by the Reader's Digest provided the first time series data. A few of those were used to provide evidence to support statements in the manuscript for the book.

Since 1996 I have been teaching International Advertising at the *Universidad de Navarra* as *Profesora Asociada*. Juan de los Angeles was the first to suggest to me to get a doctoral degree. I realized it was an opportunity to use an academic environment to consolidate the scattered empirical evidence I had collected into a structured academic study. At the start of the process I encountered several instances of culture clash, but so did the people at this Spanish university who had to deal with a strong headed Dutch woman. In particular I thank Juan de los Angeles, Angel Arrese and Alfonso Sánchez Tabernero for the delicate ways they solved problems between me and the University Administration.

During the process of data collection, research work and writing, many people have helped me. First of all Geert Hofstede who stimulated me and helped me with whatever I asked. Angel Arrese has been a fantastic director, guiding me in content and structure, not fussing about the details. Idoia Portilla helped me with the statistics. Various people have helped me with data: Marion Appel, at the time at InterView International, Leo van Os at the time at Unilever Food and Beverages and Hans Burgers, at the time at Euro RSCG. Clary Veenstra, at FHV/BBDO helped me find articles. Laurens Slood, at Erasmus University in the Netherlands advised me on statistical reporting. I was always welcome at the library of the Free University in Amsterdam and my friend Margreet Kolkman, living near that university, was willing to go there for some missing tables. I thank family and friends for never saying that I was crazy to start working on a doctoral dissertation at an age when many people retire. Last but not least I thank my husband Anne van't Haaff who assisted me practically during my trips to libraries and mentally during the research and writing process. I'll keep following his advice about one's brains: If you don't use them you lose them.

Marieke de Mooij
Burgh Haamstede, the Netherlands

CHAPTER 2

LITERATURE

During the past fifty years, practitioners and academics in marketing and advertising have conducted research on how to match effectiveness and efficiency of advertising in the global market place. From the viewpoint of the producer, one standardized advertising campaign is more efficient than different advertising campaigns for each market where an international company operates. However, advertising, to be effective, must be developed for the consumer. If globalization leads to universal consumer behavior, the logical conclusion is that standardized advertising will be both efficient and effective. If consumer behavior varies across countries advertising, to be effective, must be adapted to the differences.

Until recently many authors on global advertising have suggested that consumer behavior across countries is converging. Globalization has led to ubiquity of some consumer goods and services worldwide, and this has led to the perception of increased uniformity among consumers. The purpose of our study is to find if and to what extent this perception is true: Is convergence taking place and/or is it expected to take place in the near future. Are the differences stable over time, or is consumer behavior divergent.

This chapter is a review of literature, conducted from the advertising perspective. Its purpose is to review the underlying phenomena of global advertising. Three main topics are covered:

1. The debate and argumentation on standardization versus adaptation of advertising. Our review of this debate of the past 40 years shows that much of it is based on anecdotal evidence and assumptions.
2. The importance of values and culture. Because of our aim to analyse and explain differences of values across countries, this part of the literature review summarizes writings on values and culture.
3. Theories of consumer behavior. Because marketing and advertising are meant to influence consumer behavior, an important area of study is theories of consumer behavior. These theories generally are developed in one particular culture, mostly the United States, but may not be universal. Nevertheless, scholarly writings by authors of one culture generally refer to findings of scholars in other cultures as if applicable to their own culture without expressing any doubts.

2.1. STANDARDIZATION VERSUS ADAPTATION

The wish to standardize marketing and advertising lies in export practice. One of the early American advertising professors, Watson Dunn (1966) states that:

“One of the first questions that an international marketing executive has to answer when he enters a foreign market is “How much of our advertising can we use in this

particular country?” On one hand, he will be told that everything from American hair spray to tourism can be sold throughout the world with the same illustrations, copy and advertising approach. On the other hand, he will be told that every foreign market is different and he will run into a variety of problems including cultural taboos if he tries to use the American approach abroad” (Watson Dunn 1966:26).

This quotation covers the dilemmas of American companies when selling their products outside the US: standardize for greater efficiency or adapt for greater effectiveness. Numerous papers published between 1960 and 1990 focus on opinions, attitudes and practices of the manufacturer with respect to the choice between standardization and adaptation of marketing and advertising across countries. These are generally from the producer’s point of view. Papers are conceptual and based on assumptions without empirical evidence (Zinkhan 1994). During 30 years, nothing much changed in the discussion. Few point at the importance of understanding culture’s influence on consumer behavior (Banerjee 1994; Goodyear 1991).

2.1.1. The debate

Various authors provide definitions of standardization and adaptation, all from the viewpoint of the producer (Buzzell 1968; Boddewyn & Grosse 1995; Jain 1989). A definition by Boddewyn & Grosse (1995), who reviewed the progress of standardization between 1973 and 1993, is the following:

“Marketing standardization is both a condition and a process as it refers, on the one hand, to the degree of similarity in the marketing policies and practices of an international firm between its home country and a host country. Conversely, marketing adaptation (also called customization or modification) refers to the marketing mix dissimilarities between countries or to the policy changes made by a firm in response to between-country differences” (Boddewyn & Grosse 1995: 27).

Agrawal (1995) reviewed the 40-year debate in international advertising from the perspective of the practitioner and the academician. He distinguished three schools of thought regarding international advertising: standardization, adaptation and the contingency perspective. The latter approach is based on the idea that the most effective advertising strategy varies depending on the situation. During the past 40 years, practitioners have alternated between the adaptation approach and the standardization approach. A preference for the localized approach in the 1950s can be attributed to the relatively low level of familiarity with international consumers and markets at the time. As knowledge of international markets improved, practitioners shifted towards greater use of standardization in the 1960s. Increased nationalism, particularly in Europe, reversed the trend of standardization in the 1970s. In the 1980s, with increasing numbers of international advertising agencies, it became easier to coordinate international campaigns, with the result a greater call for standardization. Academics generally have favored the adaptation approach, based on their findings of comparative studies. In the 1990s, there still was no consensus on what is best. Table 2.1 shows the changes in time.

Table 2.1. Practitioner and academic approaches to international advertising 1950s -1980s

1950s	1960s	1970s	1980s
Practitioners: Adaptation	Trend towards standardization	Adaptation	Standardization
Academics: Adaptation	Contingency	Adaptation/ contingency	Adaptation

Source: Agrawal 1995

Early arguments for standardization of advertising were that advertising purposes are universal, and thus, advertising can be the same everywhere or that the geographic, cultural, and other distances are on the decline. The assumptions are that most appeals are basic and can be translated. It was said that effective advertising is an appeal to fundamental human needs, desires, and motivations. Traditional advertising appeals of economy, comfort, advancement, and social approval are equally applicable in all markets. A strong advertising concept developed in one country can be a critical force in sales success in many others. A strong concept or buying proposal crosses borders, only the execution must be adapted. As time passes, with the increase in communication and travel facilities, the standardized approach would become more important and practical. Different peoples are basically the same, and an international advertising campaign with a truly universal appeal can be effective in any market. The same approach can be used in every country, only specific messages and media strategy must be adapted across countries (Brown, 1923; Buzzell 1968; Fatt 1967; Killough 1978; Leo 1964; Miracle 1968; Roostal 1963).

Later arguments are economies of scale in production, R&D and marketing, convergence of consumer tastes, economies in terms of the creation and production of advertisements, availability of global media, new forms of media and the globalization of competition. A good advertising concept is said to have universal applicability and the benefits of standardization far outweigh the costs. Advertising will become more uniform and thus less expensive (Craig and Douglas 2000; Diamantopoulos et al. 1995; Grein and Ducoffe 1998; Hite and Fraser 1988; Quelch and Buzzell 1989; Samiee and Roth 1992; Sriram and Gopalakrishna 1991).

The opponents of standardization argue that economies of scale exist only in theory while reality often is different. There are hidden costs that arise out of the friction between headquarters and subsidiaries or between headquarters and channels of distribution in the host market (Shoham 1995).

Most quoted authors are Elinder (1965) and Levitt (1983). Erik Elinder (1965: 9-11), at the time Chairman of the Board of the Swedish Sales Institute used the economic argument of converging standards of living in Europe as argument for standardizing advertising. Elinder believed that convergence of standards of living and improving technical means facilitating standardization of advertising would justify identical advertising messages for all European countries. He believed in the emergence of one-language (English) television, in all-European media and increased traveling that would lead to European consumers with similar habits. His criterion for convergence was mainly economical: “the *possession* and *availability* (italics by author) of certain goods is changing people’s lives into a more uniform pattern”. According to Levitt (1983), the driving forces for convergence of needs and desires are technology and modernity.

“A powerful force drives the world toward a converging commonality, and that force is technology. It has proletarianized communication, transport, and travel. It has made isolated places and impoverished peoples eager for modernity’s allurements. ... Even people who adhere to ancient religions and attitudes, are in favor of modernity: the Ibos in Biafra are seen drinking Coca-Cola and in isolated Siberia people want digital watches. .. The world’s needs and desires have irrevocably homogenized” (Levitt 1983: 2-3).

Levitt's argument was that standardization enables a company to compete on the basis of appropriate value - the best combinations of price, quality, reliability, and delivery for products that are globally identical with respect to design, function, and even fashion. "The future global corporation actively seeks global convergence. Its mission is modernity and its mode is price competition". The assumption behind this reasoning is a rational consumer who prefers low priced, high quality, universal products. Levitt also stated that “the theory holds at this stage in the evolution of globalization”. Indeed, in the early 1980s, globalization was in a different stage than it is at the beginning of the new millennium. Many of the products Levitt mentioned as examples were unique at the time, they had American flavor and status value, they were the type of products/brands preferred by a large part of the developing world. At the beginning of the new millennium there is much more competition, and most of the examples have adapted to different environments, tastes and habits. Yet, academics keep quoting Levitt and the ubiquitous Coca-Cola and Levi’s jeans, as examples of successful advertising standardization. Few understand the specific position of these brands. Other marketing instruments, such as distribution, are probably the cause of their success. A successful brand like Coca-Cola before it got established, in each of its markets, built a fairly complete local infrastructure and did the groundwork to establish local demand. Today, because the company has done its homework and done it well, Coke is a universally desired brand. Success rarely results from merely selling a “world product” (Hamel and Prahalad 1986; Hout, Ohmae 1989; Porter and Rudden 1982).

Overlooking the importance of distribution in explaining the success of examples of standardized advertising is only one lack of substance. Another one is overlooking the type of message used. The examples of success tend to be examples where advertising appeals are based on product attributes and benefits, appeals that can more easily be standardized than value appeals. Brand leaders like Coca-Cola and Levi’s could afford to use product attribute appeals in advertising because they were first in the market. Coca-Cola’s advertising is often quoted as reflecting “Americanism” or “Youth” as universal approaches. In reality Coca-Cola’s message has always been “refreshment” (Miracle 1966). Because they have used this appeal consistently over time, they have remained brand leaders. In a more competitive environment, where competitors have to use appeals at the value level in order to differentiate themselves from the competition, standardization is much more difficult. Early 2000, this observation proved to be right. Coca-Cola was in problems and decided to decentralize management to get closer to local markets. Local managers are free to tailor advertising to local cultures (Foust et al. 2000).

In the 1980s the search for similarities and universals continued. There was consensus on the appearance of homogenization of markets for some groups and for certain durables and non-durables (Farley 1986). In the 1990s the statements on universality became even more modified, and focused on certain target groups with converging tastes and a global culture, so-called "global communities". Global segments may exist for certain categories of products such as high-tech, and services such as credit cards. Hence, global advertising

was said to be appropriate for some products, under certain conditions. Convergence would not apply to all products and lifestyles in general, but only to some of them. And standardization would only apply to some marketing mix elements such as packaging and advertising (Banerjee 1994; Domzal and Kernan 1993; Snyder et al. 1991; Wentz and Mussey 1999; Wierenga et al. 1996).

“Over time, researchers have moved to a middle ground, and have worked on specifying the conditions under which standardization is appropriate ... For some types of consumers, similar segments; for some product attributes, such as novelty, international image, stage of life cycle. Industrial goods and some consumer products (such as cars, computers, dishwashers, and laundry detergents) have universal motivations and product use, so they could be considered relatively culture-free” (Snyder et al. 1991: 443-444).

Another assumption is that the more equal the income levels, the better are the perspectives for a standardized marketing approach (Wierenga et al. 1996:42). The concept of a rational consumer plays an important role in convergence theory. Economic convergence is assumed to lead to better-educated consumers, resulting in rational choice behavior. With respect to some target groups Europe is assumed to be not only economically, but also culturally homogeneous. For other regions such as Asia and Latin America, similar arguments are used (Chhabra 1996; Tai 1997).

Opponents of standardization point at the causes of failure of standardization. Reported similarities are often based on wishful thinking and biased research or are very superficial similarities. The fault is in the implementation, not in the validity of the standardized concept. Often, in centralized organizations there is domestic bias and headquarters make decisions without knowledge of marketing conditions of foreign markets. The arguments against standardization are that it is not supported by empirical data. Although over the years, research efforts are increasing, authors keep complaining about lack of research. Various research needs are mentioned, such as: Need for data in general; the need to investigate the financial impact of global standardization; understanding the influence of culture, values and consumer behavior; the possible linkages between values and various intervening variables of consumer behavior; the role of culture in the decision making and adoption process; copy testing; transferability of advertising campaigns and comparison of creative people across cultures. Particularly lacking is a theoretical framework, based on empirical data (Donnelly 1970; Dunn 1966; Farley 1986; Henry 1976; Kashani 1989; Kohn 1996; Paliwoda 1999; Peebles, Ryans and Vernon 1978; Samiee and Roth 1992; Shoham 1996a, 1996b; Szymanski et al. 1993; Wiechmann and Pringle 1979).

Increasingly Levitt's statements of 1983 were queried. Three years after publication of his famous article a number of distinguished US scholars responded to Levitt's statements. Comments were that a distinction should be made between products and brands. The global product can be standardized; the branding, positioning and promotion may have to reflect local conditions. The success of foreign companies doing business in the domestic markets is probably due to factors other than emerging universality of consumer needs and want. Adaptation is necessary because customers in different countries want special product features. Customers in different countries vary in their resources and buying behavior. Environmental factors, such as government regulation, climate, and competition vary. Most international blunders are said to stem from instances of cultural insensitivity - lack of awareness of values, and attitudes - that cause a strategy that is extremely successful in one

country to prove wrong in another (Kotler 1986; Sheth 1986; Simon-Miller 1986; Wind 1986). Later authors point at the lack of empirical evidence behind the arguments for standardization.

“Although anecdotal support for convergence and standardization was plentiful, empirical evidence was in short supply ... What Levitt may have witnessed was an increase in global branding rather than a big increase in global products. But even this may not be as extensive as it seems. The point has been made often; the same names, such as Coca-Cola and McDonald’s, that were originally cited are still cited today. Very few new ones have been added to the list. ... Levitt may have taken the extensive diffusion of a few brands as representative of the wide diffusion of many” (Whitelock and Pimblett 1997: 52-53).

To summarize: The main arguments for standardization are convergence of technology and convergence of needs and motives. The main argument for adaptation is the existence of cultural differences between countries.

2.1.2. The conditions for successful standardization

Various conditions are said to influence the possibility of standardization: A well-known and accepted brand name; specific product categories such as cameras and watches; services such as credit cards; some soft drinks. Other variables or conditions are: The competition; economic development of markets; spending power of consumers; marketing infrastructure; management; centralized authority; the advertising style; the degree of involvement of the consumer with the product category; nationalistic feelings; laws and government regulations; cultural and social variables including local tastes, habits and conditions of use (Boddewyn and Grosse 1995; Harvey 1993; Hite and Fraser 1988; Jain 1989; Ohmae 1989; Papavassiliou and Stathakopoulos 1997; Whitelock and Pimblett 1997; Yip 1989).

For some marketing mix instruments standardization is assumed to be easier than for others. Authors more or less agree that brand identity and corporate identity should be more or less standardized for a consistent image. If the company has a true global orientation it will generally want to convey consistent values wherever it competes (Melewar and Saunders 1998). Several authors find that the need for adaptation depends on the product category and tend to distinguish between culture-free and culture-bound product categories. For example, personal grooming products and food may have to be modified to suit differences in taste. Certain low-priced non-durable goods fulfilling basic needs are thought to have broad potential markets. Also for industrial products, there may be no difference in customer interests or response. Consumer products used in the home - like Nestlé’s soups and frozen foods - are often more culture-bound than products used outside the home such as automobiles and credit cards. The appropriate degree of standardization depends on the level in the value chain and the similarities of consumer tastes and market conditions worldwide. Some marketing activities are easier to standardize than others. It is, for example, easier to introduce and maintain a global brand name than it is to maintain a uniform qualitative sales force approach (Craig and Douglas 1996; Harvey 1993; Moriarty and Duncan 1990; Porter 1986b; Quelch and Hoff 1986; Wind, Douglas and Perlmutter 1973).

The obstacles to standardization are manifold. Yip (1989) reports that Procter & Gamble stumbled in 1989, when it introduced Cheer laundry detergent in Japan without changing the US product or marketing. Cheer became successful in Japan only after the product was reformulated and the marketing message was changed. Examples of obstacles mentioned in the earlier literature are a lack of international advertising agencies in other parts of the world, the multitude of languages and differences with regard to family patterns, childhood training and the role of members in the family (Miracle 1968; Roostal 1963). Several authors do point at the importance of cultural values, but rarely in a structured way. To many, culture is at best a “dustbin word” (Donnelly 1970; Henry 1976; Holden 1998; Manrai and Manrai 1996). Miracle (1968) included empirical evidence from a study by the Schwerin Research Corporation in 1961, comparing the effectiveness of television commercials that were dubbed only and commercials that were adapted. The latter were found to be more effective. From the managerial point of view, in applying the global marketing concept and making it work, flexibility is said to be essential. Managers need to tailor the approach they use to each element of the business system and marketing program. User needs, habits and buying are not identical in all the national markets of Europe (Quelch and Hoff 1986).

“When it comes to product strategy, managing in a borderless world doesn't mean managing by averages. The lure of a universal product is a false allure. ... When it comes to questions of taste and, especially, aesthetic preference, consumers do not like averages” (Ohmae 1989: 155).

Traditional thinking in international marketing has primarily focused on the similarities of market segments. Increasingly it is recognized that the critical factor is differences. The more we understand the differences in world markets, the better is marketing's delivery of value. “Catering for the special needs or tastes of markets will make international marketers truly successful” (Samli 1995:131).

2.1.3. Global communities

The basis of standardization theory is the assumed existence of cross-border segments with universal values. Some brands are systematically targeted at groups of consumers with similar lifestyles, also called “global communities”. “It is many years since we first heard that the young urban professional in Milan has more in common with his counterpart in London than he has with his peer in the nearest village” (Callar and Byfield 1999:51). The most frequently used examples of global communities are youth, business people and young urban professionals (YUPs), who are assumed to have adopted similar lifestyles across borders.

Theoretically, universal segments are the road to global success, but there is no empirical evidence that firms actually seek and identify intermarket segments, a task that provides the necessary condition for global standardization (Samiee and Roth 1992).

Consumer researchers have been able to find cross-border consumer segments, but if you take a particular ‘Euro-segment’ and look hard enough for the common human elements lying beneath individual nationalities, similar ‘core values’ may be there to be discovered (Keen and Hellebosch 1990). A close look at many of such studies often reveals limitations

in the research methodology leading to spurious results. An example of such a search for universal values is by Dawar and Parker (1994), who try to find marketing universals for consumer electronics products. They argue that the relevant segment across countries for this category consists of relatively young, mobile, affluent, and educated consumers. Marketing universals examined are consumer's use of brand name, price, physical appearance, and retailer reputation as signals of product quality. There are severe limitations to the study. The sample consisted of 640 MBA students representing 38 mostly Western industrialized countries and Japan. The questionnaire was administered in English only. Countries were clustered according to very rough trade areas (e.g. North America and EU).

Consumption or ownership of some products may determine lifestyle, but cultural influences are overriding when we look at motives for brand preference. There are no global consumers. People of similar lifestyles do not behave as a consistent group of purchasers in any category. They are not interested in global brands because such brands are global (Clark 2000). Eshgi and Sheth (1985:155) found empirical evidence that culture overrides lifestyle effects. "Lifestyle influences are significant in explaining consumption behavior, but the effect is not very strong. There is evidence that national and cultural influences continue to determine consumption patterns across cultures."

An example frequently cited as evidence of the homogenization of markets, is the cosmopolitan business segment. The idea is that business decisions are culture-free. The question remains whether such businessmen retain commonality after office hours on non-business purchases. A frequently heard argument for the existence of similar cross-border segments is increased mobility, giving potential exposure to other cultures. But the value of travel may be overstated. Tourism has often, rather than aid cultural convergence, made the local cultures less accessible to the visitor. "Everywhere seems the same because the tourist remains in a standardized cocoon, immune from the real culture outside it. The similarities seem great because we are not aware of the differences" (Whitelock and Pimblett 1997:56).

Many marketing and consumer behavior textbooks mention youth as a homogeneous target group. The youth market is supposed to be a homogeneous global target group with universal needs across the world. Assael (1998:499) states that exposure to global youth media such as MTV "has encouraged the development of a global teenager, that is, teens with similar values across countries. MTV, but also greater travel and better global communication have spurred the development of common norms and values among teens worldwide. Eighteen-year-olds in Paris have more in common with 18-year-olds in New York than with their own parents". According to Paliwoda (1999), today's youth constitute a generation that has been weaned on global brands. Business journals reinforce the assumption of global teenagers and focus on the unifying effects of popular culture. "Europe's teenagers listen to the same French flow music by MC Solaar on their MP3 players, talk to each other on their Nokia GSM phones and surf and chat on the Net. Many Europeans are now more alike each other than they are distinct" (Rossant 2000:72).

Research findings show a different picture. British and German teenagers typically have more to spend than do their French and Italian counterparts (Bartos 2000:119). "The image of a fun-loving, brand conscious and free-spending Western-type teenager is very much a myth in many countries in Asia, including [the wealthy] Singapore. ... The concept of converging teenage lifestyles has to be re-examined, especially in the context of Asian societies" (Tan Tsu Wee 1999:369).

Research International conducted international qualitative trend research among the young, titled 'Teenagers of the world'. "The young, when asked what to take with them in a time capsule, all included Levi's jeans and Nike sports shoes. But that does not mean that teenagers around the world have the same norms and values. In countries with strong family values and structures, these values give the young a sense of stability and safety, but in these countries, the young react against their parents more strongly than in cultures with loose family structures. In cultures with loose family structures, teenagers lack the safety of strong families and they do not have to rebel. The generation gap is for them something of the past. ... The consequences are that also for teenagers in different cultures different appeals must be used. The generation gap may be one for Spain, Greece and China, but not for the Netherlands" (Fitié and Struik 1994:20-21). Asian authors state it even differently. In Asia, "the promotion of products based on the typical youth themes of rebellion, individuality, freedom, confidence, sexiness, and even Americanness, may communicate little to teenagers whose values are shaped by traditional mores and where the influence of parents is still strong" (Tan Tsu Wee 1999:372). So, while textbooks mention the existence of universal global communities, reality is different.

So-called similar groups, in practice are approached in different ways. For example, Levi's blue jeans create different brand images for customers in different parts of the world (Roth 1995). Global, homogeneous markets exist only in the mind of the international marketing manager. It should not be that consumers must adapt to the ideas of the manager, but it should be the other way round: The managers should adapt to the ideas of the consumer. Consumers are not global. Their motivations vary. Consumers do not buy 'global products or brands'. They do not care if the brand they buy is also available elsewhere in the world. Consumers construct their own brand identities, even for global products. They do this uniquely on the basis of their own, local culture and their own personal identity (Freiherr v. Fircks 1993; Usunier 1996). While global consumers exist in the sense of a global need for burgers, jeans, CDs, or combine harvesters, these needs still have to be appealed to in the sense of cultural consistency" (Kitchen and Wheeler 1997). Companies may target segments of environmentally concerned consumers, in case of the Body Shop or customers with global operations as for example banks. In many cases, however, customer needs and interests as well as the nature of competition and the market infrastructure differ from one country or region to another (Douglas and Craig 1999: 102).

The debate on standardization versus adaptation is mainly a theoretical one. Reality shows less standardization than textbooks suggest. The few frequently mentioned examples are not representative for all categories. There may be global communities, but they are only similar with respect to age or urban lifestyle. There is no empirical evidence of similarity with respect to motives for buying brands to justify global advertising. There is little empirical evidence to support the debate on convergence in international marketing and advertising. What evidence available does not support the assumption of convergence, to be demonstrated by the examples of empirical studies in the following section.

2.1.4. Empirical studies

Two types of empirical studies of the standardization issues in marketing and advertising are reviewed in this section.

1. Surveys among managers of companies and/or advertising agencies of their opinions and current practice.
2. Studies of the effectiveness of standardization on company performance.

2.1.4.1. Surveys among managers.

The answer to the question what makes international marketing standardization such an enduring topic is that it is the central managerial issue in international marketing.

Numerous studies of the standardization-adaptation issue in marketing and advertising are based on interviews among managers. What they have in common is that multinational executives think they have more control over marketing than they really have. So-called multinational campaigns are never quite as standardized as many executives think (Dunn 1976; Whitelock and Chung 1989). The culture of the company also plays a role in reported practice. There is a clear dividing line between the Latin and Anglo-Saxon countries. German and British brand managers claim more frequently to be aiming at standardization of their brand's marketing mix than French and Italian managers who tend to be most faithful to local adaptation (Kapferer 1993).

Boddewyn & Grosse (1995) and Agrawal (1995) made inventories of opinions and practices with respect to the standardization-adaptation issue over time. They reported that, roughly speaking, during the 40 years after the debate started, opinions have remained the same. Generally, North-Americans believe in the possibility and strategic advantage of standardization while Europeans think marketing and advertising should be adapted to local customs. Boddewyn & Hansen (1977) replicated a study by Terpstra (1967) who surveyed 25 US Multinationals in 1963 about the extent of standardization of US marketing policies between the United States and the then six EC member countries in terms of products and product lines, promotion, physical distribution and marketing research. The study reports that, despite elimination of internal tariffs between the EC member countries, several major obstacles remained before greater standardization of marketing policies could be achieved. In 1983 the study was replicated by Boddewyn et al. (1986). Findings were that between 1973 and 1983 of many of the consumer goods marketing policies applied by US firms in the EEC standardization increased.

Because of growing consumer resistance to excessive product standardization, the trend towards increased standardization was expected to decline. To find if this was true, Boddewyn and Grosse (1995) replicated their studies in 1993. A general conclusion was that "US marketing policies in the European Union have become more adapted during the 1983-1993 decade for both consumer durables and non-durables. Perceptions of the main barriers to standardization remained virtually the same across the three decades.

In the three surveys, differences in consumer tastes and habits were perceived to be very important for consumer-goods producers. In table 2.2, for the categories Consumer non-durables and Consumer durables, the ratings on a 7-point scale are given for 1973, 1983 and 1993 for the three most highly rated obstacles to standardization.

Table 2.2. Obstacles to standardization

	1973	1983	1993
<i>Consumer non-durables:</i>			
Differences in tastes and habits	5.5	4.7	5.3
National government regulations	4.8	4.0	5.0
Nationalistic feelings	4.4	3.8	4.6
<i>Consumer durables</i>			
Differences in tastes and habits	5.5	4.4	5.1
National government regulations	5.3	4.1	4.6
Competition from European firms	5.8	5.7	4.2

Source: Boddewyn and Grosse (1995)

A survey among advertising managers in 175 non-durable goods manufacturers in the United States, reported by Ryans and Donnelly (1969), showed that only about 17% of the respondents estimated that their firm used standardized campaigns or advertisements as much as one-half (50%) of the time. In fact, over 75 percent of the firms surveyed used common advertising campaigns or advertisements less than one-third of the time. The survey demonstrated that in reality, US firms standardized very little, although respondents agreed with statements like “there are very basic similarities between girls in Tokyo and Berlin”. Advertising managers were solidly in agreement that “basic human nature is the same everywhere” and that “traditional appeals can be used in all markets”, but they disagreed with the statement that “standardized advertising can now be readily applied on a worldwide scale because cultural differences have become minimal.”

Donnelly (1970) measured opinions among international advertising managers of the leading US consumer non-durable goods manufacturers about the need for cultural sensitivity. He found a relationship between managers' views of the importance of cultural variables and their approach to planning. Wind, Douglas & Perlmutter (1973) found that separate advertising appeals and messages were only developed for an individual market if sales in that market were sufficiently large to support the additional cost involved. Otherwise appeals and themes developed in other countries were used. It was presumed that if these had been successful in another market, there was a strong possibility that they might also be effective in the new market.

Sorenson and Wiechmann (1975) surveyed 27 leading multinationals (including companies such as Unilever, Procter & Gamble, Coca-Cola and Nestlé) in consumer packaged goods industries to find how much these multinationals actually standardized the various aspects of marketing. Each product studied was sold in at least three of the following countries: England, Germany, France, Italy, Belgium, Holland, Sweden, Switzerland and the United States. Executives rated 65 percent of their total programs into the category of high standardization. The total marketing programs surveyed included product characteristics, brand name, packaging, retail price, basic advertising message, creative expression, sales promotion, media allocation, role of sales force, management of sales force, role of middlemen and type of retail outlet. Least standardized were media allocation, retail price, type of retail outlet and creative expression.

Hite and Fraser (1988) analysed international advertising strategies of multinational corporations, and found that the majority strongly agreed that it is important to change the language to blend with the cultures of foreign markets. Firms tended to agree that it is also important to change models, scenic backgrounds, and product attributes.

A survey among 118 large US industrial corporations by Kanso (1992) revealed that the majority of the studied firms are guided by the localized approach. The study identified two groups of managers: culturally oriented managers and non-culturally oriented managers. Overall, the findings suggested that human wants and needs are more or less universal, but the way to address these wants and needs is not.

Kapferer (1993) described a pan-European survey by Eurocom, among the directors of the main brands present in the majority of European countries. From a factorial analysis six factors emerged which explained over 66 percent of variance. Two of the six factors included cultural differences. The first factor regroups elements related to the consumer (differences in lifestyle, age, buying power, needs and expectations, and to a lesser degree consumer habits); the second factor regroups the items concerning the brand's status in a country (brand history, image, awareness). Cultural differences also weigh heavily on this factor. The fact that such cultural differences should affect this second factor was viewed as indicative of their profound, long-term nature. They were related to the other variables which measure collective memory of the past (brand image and history).

Chhabra (1996) found that American MNCs adapt the models in their product line, product packaging and product size in South America. Yip (1997) surveyed 64 worldwide businesses. This sample of very large multinational companies made only moderate use of globally uniform marketing, implying that most companies have only partially adopted the creed of global marketing. Generally, these businesses used global branding and global packaging but made much less use of global uniformity in other elements of the marketing mix.

Tai (1997) investigated the extent to which multinationals standardize their advertising strategy in the Asian Chinese markets, and found that advertising standardization among the four markets is not high: On average, 31 percent of the advertising decisions are made using the same strategy as the home markets, while 68 percent use a different strategy. The major obstacles in transferring advertising strategy to Asian Chinese markets are found to be differences in cultural background (67 percent), differences in consumer tastes (55 percent), and differences in languages used (46 percent).

Findings from the surveys demonstrate that many of the assumptions on standardization practice are not based on reality. When marketing and advertising practices are investigated in surveys among practitioners, what managers say about what they do often is different from actual practice. There is a common tendency for an executive at the US headquarters to believe that there is more standardization than actually exists. What people say does not always reflect reality.

2.1.4.2. Effect of standardization on performance and ROI

The most important question to ask with respect to standardization is whether it is effective and improves company performance. Only recently, scholars have managed to find this type of evidence.

Shoham (1995) reviewed research findings on global marketing standardization in literature. In general, economies-of-scale are small in magnitude and economies-of-scale-based standardized marketing programs can lead to lower levels of performance. The larger the cultural distance between two countries, the higher the friction between headquarters and local representative if the former attempts to standardize marketing strategies. Standardized strategies under such conditions will harm performance.

Meffert and Bolz (1995) conducted a survey among durable consumer goods companies in four large European markets: 50 companies with their headquarters in Germany, 29 in other European countries and 13 in the US and Japan. The results of this empirical analysis indicate that standardization of the product and distribution policy and information systems has a positive effect on ROI. Standardization of communication policy, planning and personal processes has a negative effect on ROI.

Shoham (1996b) conducted a survey to find if adaptation of the marketing mix enhances export performance. The data for this study were gathered from manufacturing exporters in the USA. Findings were that adaptation of product quality, services, and design is not associated with export performance. Price adaptation enhances performance. Adaptation of advertising contents is associated with improved sales and profits. Shoham (1996a) also investigated effectiveness of standardized advertising versus adapted advertising for soft drinks and found that effectiveness of a fully adapted commercial was highest and of a fully standardized commercial was lowest.

Samiee and Roth (1992) conducted a study to empirically examine the relationship between global standardization and financial performance of business units within the global industry context. Findings were that the assumptions that usage patterns of industrial products are cross-culturally similar are not correct. Only 47 percent of responding business people in the study stressed standardization. The authors conclude:

“Common views about standardization have rarely been supported empirically. It may well be that such views are based on a few casual observations. The fact that Coca-Cola and Colgate-Palmolive sell some of their products in more than 160 countries does not signify that they have adopted a high degree of standardization for all of their products globally. Only three Coca-Cola brands are standardized and one of them, Sprite, has a different formulation in Japan” (Samiee and Roth 1992:14).

From the above we conclude that assumptions on standardization in textbooks and conceptual articles are not a reflection of actual practice. They also are not good business practice. There is no empirical evidence that standardization leads to better return on investment. In view of the lack of evidence of convergence of consumer behavior, global companies should think twice before further standardizing their marketing and advertising operations.

2.2. CONVERGENCE - DIVERGENCE

The arguments for global standardization tend to be based on assumptions of convergence of incomes and consequently of lifestyles while the arguments for adaptation are based on differences in consumer behavior resulting from cultural differences. The general assumption is that convergence of technology, global media, increased communication between people, increased trade and travel between countries acts to bring them together.

In textbooks on international marketing and advertising there are plenty of statements on convergence of lifestyles and values that are not based on empirical evidence. Examples of such statements are "The development in communications will bring convergence in consumer markets" (Bradley 1991:384) and "With technological advancement also comes cultural convergence" (Czinkota and Ronkainen 1993:167). The general assumption is that economic development will result in cultural change that in turn leads toward acceptance of global products (Jain 1987:229). Quelch and Buzzell (1989) are of the opinion that long-term, increased population mobility in Europe will have a melting pot effect on consumer behavior. This is expected to lead to convergence of lifestyles, as a result of increased availability of global products and services. "In many ways, consumers are growing more alike, and we all know why. Mass communications, travel, multinational companies, the whole apparatus of the global village" (Bullmore 2000:48).

A unique world culture is supposed to emerge. With respect to maturity of consumer markets, the United States leads the world. As Jones (2000:5) states: "Logic points to similar patterns emerging in other countries when their per capita income levels approach that of the United States". Assael (1998:501) includes the demise of Communism as one of the causes of convergence: "The globalization of communications, decreasing trade barriers, and the demise of Communism have spurred the acceptance of American consumption values across the globe. Consumers in all parts of the world crave American goods as status symbols. In so doing, they adopt American consumption values to be consistent with local language, meaning and beliefs".

This concept of one world culture and homogeneous consumption originates from a universalistic thinking pattern of American textbook authors, also driven by wishful thinking by (mostly American) multinationals, not based on reality (De Mooij 1998b). Also Huntington (1996a) states that the concept of a universal civilization is a distinctive product of Western civilization. It originates from universalistic thinking and an early 'imperialist' frame of mind, including the assumption that modernization means Westernization. Bakonyi reflects such thinking in an early statement on convergence in 1958. We see this line of thinking still reflected in many writings.

"A glance at the history of the last four hundred years shows us a vigorous expansion on the part of Western culture in science, technology, industry, organization, sports, fashion, customs, etc., which has slowly but surely come to be worldwide in scope. This expansion has carried Western emotional values and concepts together with the corresponding linguistic elements to the far corners of the globe and has made of them a common treasury also of the non-Western communities. This is genuinely a process of convergence" (Bakonyi, 1958: 28).

The phenomena causing convergence are said to be socio-economic and technological development, media and increased mobility. Advances in mass media, transportation, and travel are breaking down the traditional barriers among groups of people and their differing cultures, so that a homogenization process is underway (Eshgi and Sheth 1985; Harris and Moran 1987; Kaynak 1985; Sriram and Gopalakrishna 1991; Webber 1969).

The concept of McLuhan's (1964) 'Global Village' makes many authors believe that in particular the new global media and increased travel will lead to convergence with respect to values, lifestyles and consumption. Assael (1998), author of one of the leading textbooks on consumer behavior, states:

"Because of the advent of worldwide cable networks, television has become a global medium. Propelling this phenomenon is the global influence of MTV, the rock video channel, and CNN, the worldwide news channel. .. Heavy viewers of TV will develop similar perceptions of reality because they are exposed to similar stimuli. .. This implies that global TV networks such as MTV and CNN are promoting similar norms and values on a global basis" (Assael 1998:499).

Countermovements call this view of global cultural homogeneity cultural imperialism or 'Americanization'. Cultural homogeneity refers to "consumption of the same popular material and media products, be they Schwarzenegger, Cheers, Pepsi, Big Macs, Disney Worlds, clothes, cars or architectural fashions, creating a metaculture whose collective identity is based on shared patterns of consumption" (Ferguson 1992:80). There is a contradiction in this: the excitement of advertisers about increasing 'cultural convergence' contrasts sharply with the concern expressed by some scholars about 'cultural imperialism', and a growing Americanization (Snyder et al. 1991).

2.2.1. Convergence theory

The elements of convergence mentioned by most authors of marketing and advertising generally reflect those of convergence theory by Kerr et al. (1960 in: Giddens 1991: 794-795), claiming that convergence is an element of industrialization with focus on convergence of technology. According to Kerr social and economic processes fostered by industrialization are (1) Technology and professionalism; (2) Open societies, including equality and opportunity; (3) Higher education; (4) Widespread urbanism including developed communication systems, media and transport and communications infrastructure; (5) Cultural homogeneity including opposition to tradition; (6) Diminishing risks of war. "Convergence is most marked in the means and methods of production and in the terms of the daily lives led by the mass of the population. Forms of economic organization, political systems, and patterns of belief and ideology remain much more variable" (Giddens 1991:795).

Inkeles (1998:8-9) states that already in prehistorical time, despite minimal interconnectedness and integration, convergence was quite substantial and the most important manifestation was the level of technology. According to Inkeles, later in history the main elements of convergence were (1) Modes of production including increasing dependence on science and technology. (2) Institutional arrays, forms and processes. (3)

Structure and patterns of social relationships. (4) Systems of popular attitudes, values and behavior. As human life experiences of "industrial man" become more alike, attitudes, values and basic dispositions will also become more alike. (5) Systems of political and economic control. According to Inkeles, this convergence is not a short-term process. A common standard of political organization can only be expected to arrive after a span to be calculated in centuries rather than decades (Inkeles 1998:20-23).

According to Inglehart (1997:18) most societies are becoming similar with respect to the before mentioned criteria. Almost every society on earth has at least begun to industrialize and it seems likely that within the next century most of humanity will live in predominantly urban industrialized societies. "This does not mean that all societies will be identical. Industrial societies have a wide variety of cultures and institutions. But their common characteristics are also striking: Virtually without exception, they are characterized by high degrees of urbanization, industrialization, the use of science and technology, and high levels of formal education."

2.2.2. The macro-micro dichotomy

For the analysis of convergence, several authors distinguish between convergence at macro and micro level, but the macro-micro dichotomy is not well-defined (for definition see section 2.2.3). It is said that there may be convergence both at macro and micro level, or only at macro level, while at micro level differences become distinct. "More and more people want to travel abroad and can afford to do so, which is a move toward sameness. More and more people want to go where nobody else is going, which is a move toward difference" (Bullmore 2000:49).

The convergence thesis at macro level deals with aspects of national income; infrastructure; health; social welfare; education levels of countries; possession of communication means such as telephone lines, television sets and newspapers; computers; cars; increased leisure and physical security. Inkeles (1998) adds six freedoms: Freedom of movement; freedom of belief; freedom of association; freedom of political choice; economic freedom for the worker and the consumer; freedom from discrimination.

The macro-variables generally are the characteristics of the industrial, but even more of the postindustrial world and the effects of modernization, as described by Inkeles (1996, 1998). According to Usunier (1997:95) some researchers, even though they acknowledge national differences in cultural background, envision multinational marketing activities merely as processes of innovation and change that would bring worldwide convergence, with "traditional" cultures being progressively replaced by "modern" ones.

Most of the developments accelerating the trend toward global market unity mentioned in marketing and advertising literature are macro developments. Summaries of such macro developments are the following: Rapidly falling national boundaries; regional unification; standardization of manufacturing techniques; global investment and production strategies; expansion of world travel; rapid increase of education and literacy levels; growing urbanization among developing countries; free flow of information, labor, money, and technology across borders; increased consumer sophistication and purchasing power; advances in telecommunication technologies; and the emergence of global media (Ter

Hofstede et al. 1999). Examples of convergence at macro level mentioned by Usunier (1996:104) are: convergence of systems; convergence of economic environment (convergence of household incomes); demographic convergence (age distribution, household size, proportion of immigrants); convergence of sociocultural environment (equality between males and females, health and environmental issues); convergence of consumer behavior at the macro level (increasing buying of services at the cost of durables, increased demand for health, fun and convenience products); convergence of distribution systems; convergence of advertising expenditure.

Most authors focus on the societal macro variables to demonstrate convergence. Only a few note that convergence at the macro-level (e.g. convergence of incomes) does not necessarily imply convergence of micro level elements. "Countries similar economically are not necessarily similar in their consumption behavior, media usage and availability patterns" (Sriram and Gopalakrishna 1991:140). Leeflang and Van Raaij (1995:373-374) distinguish between a macro-marketing environment and a micro marketing environment. The EU nations converge to a more similar macro-marketing environment and macro-marketing mix. The authors also point at the differences in the macro-marketing mix with respect to distribution, media shares, levels of advertising, promotion and direct marketing and marketing research expenditures. "But convergence is expected over time" (Leeflang and Van Raaij 1995:385). Quelch and Buzzell (1992:66) make a clear distinction between macro- and micro-level. European unification measures, for example, make individual country markets more accessible, not more identical.

Convergence of lifestyles is suggested both at macro and at micro-level. Examples of homogeneous lifestyle descriptions at macro-level are of baby-boomers or yuppies. The baby boomers can be viewed as united by a world of expanding production and consumption, television, popular entertainment, rock music and synthetic instruments, pop psychology, the sexual revolution, minority and women's rights, the fitness craze, the ecology movement, supermarkets, shopping malls, drive-in restaurants, fast foods, foreign travel and English as their lingua franca (Domzal and Kernan 1993). Others agree that some convergence may occur, but that it will not result in the elimination of cultural differences. For example, leisure-time activities will always have culture-specific content (Triandis 1995). Even so-called homogeneous lifestyle groups are not global, but a phenomenon of the Western world. While in the Western world homogeneous lifestyle groups are self-evident, in Asia, some of the reflections of culture (e.g. linguistic issues, symbolism) are viewed as permanent factors, because they reflect intrinsic differences in consumer perceptions and information processing. Other differences are expected to diminish over time. For example, in the consumption of some product categories such as clothing, entertainment, and consumer electronics, there seems to be a convergence of lifestyles and preferences, at least among certain strategically important market segments such as city dwellers (Schmitt and Pan 1994). Those who have been in international research for some time know that there are many conflicting forces that continue to shape national cultures and markets (Homma 1991). Globalization through world commerce is only part of the story. To more fully evaluate the changes taking place, as we become global citizens, it is necessary to also consider local resistance to globalism (Belk 1996).

Although convergence may take place at macro level, there is increasing evidence that at micro level there is not so much convergence. Infrastructural and economic integration usually occur at a higher speed than the cultural and mental integration of consumers.

“Persil, Kodak, Sony, BMW, Aldi and IKEA may well be highly visible throughout much of Europe, but there is little evidence to support the assumption that the consumers buying these brands have common goals and expectations across Europe” (Dibb et al. 1994:130). Although there certainly is evidence of globalization of markets, there are also clear signs that differences in local consumer behavior are persistent. Customs and traditions tend to persist and therefore concepts such as a “European consumer” are misnomers.

Several scholars observe that as people around the globe become better educated and more affluent, their tastes actually diverge. With increased wealth, people increasingly accord greater relevance to their civilizational identity. Variations in the legal environment may disappear in future, but cultural differences will undoubtedly prove more resistant to change. Formal law is likely to converge, but the ways it is applied are likely to remain different. (Dawson 1998; Jain 1989; Savitt 1998; Sriram and Gopalakrishna, 1991; Homma, 1991; Huntington 1996b; Usunier 1996; Wierenga et al. 1996).

Modernization, frequently mentioned as a cause of convergence, is not synonymous with convergence of values. Perkin (1999:461) refers to modernization as just “one of the neologisms like post-modernism that tend to conceal a preference for the values and practices of an author’s own national culture. Modernization generally means Americanization”.

“The view that consumers worldwide are gradually moving towards the universal adoption of American or European values is a myth, easily disproved, and self-evidently the result of interpreting other cultures from an ethnocentric Euro-American viewpoint. In fact, careful comparison of Hofstede’s data over the past 20 years or so demonstrates that there is a tendency for differences to become more marked over time” (Anholt 2000:77).

2.2.3. The macro-micro dichotomy defined

Various fields of study define the dichotomy in different ways. In international marketing textbooks, “macro information” generally includes population data, GNP per capita, and growth rates of production and consumption (Jain 1987:376-395). Another term used is the “macro-environment” that includes political, legal, economic, social, cultural and technological dimensions (Mühlbacher et al. 1999:50). Descriptions of the “macro-economic environment” tend to include besides purely economic factors human, technological and natural resources, skills of a country’s population (education), infrastructure (traffic, communication and technology), and level of technology (Mühlbacher et al. 1999:85). Jain (1987:181) distinguishes the macro- and micro environment as follows. The *macro-economic environment* is a country’s economy, sources of domestic livelihood and allocation of resources. Measurements of economic advancement at macro level are: energy available, GNP per capita, consumption, transportation and communication facilities, urbanization, capital for investment, technology and media and the structure of consumption. The *micro-economic environment* refers to the environment surrounding a product and/or market of interest to a company. Essentially the micro-economic environment concerns competition. Different competitors may satisfy different types of demand (existing, latent, incipient). This description points only partly at the consumer. Hunt (1976:20) distinguishes between macro- and micro at the level of

aggregation. "Micro refers to the marketing activities of individual units, normally individual organizations (firms) and consumers or households. Macro suggests a higher level of aggregation, usually marketing systems or groups of consumers".

The distinction micro-macro is also used for segmenting international markets. Then, macro-level criteria include objectively based variables, such as language, religion, geography, economic bloc, or economic development. Micro-level criteria are subjectively based variables, such as behavior, lifestyles and attitudes. According to Peterson and Malhotra (2000:57), the macro criteria are typically traditional and stereotypical and represent features of the country that can be counted, recorded, and shared as secondary data. The micro criteria would likely call upon consumer survey methodology to measure.

Consumer behavior researchers, according to Andreasen (1999:847) are typically concerned with micro and "somewhat macro" processes of consumption behavior. At the micro level is the study how individuals seek information, evaluate alternatives, develop affective responses, plan actions and then decide, act and evaluate. At the "somewhat macro" level is the attempt to understand group behavior of households, neighborhoods or lifestyle segments.

The distinction between macro and micro at the level of aggregation is not useful for comparative research across nations, as all data are at the aggregate level. What the descriptions of Jain, Hunt and Peterson & Malhotra have in common, is that they point at micro-level data being more concerned with buying behavior of consumers, as opposed to macro-level data being indicators of the macro-economic environment of countries. This rough distinction is followed in our study.

Statistical indicators of a country's development, which often are also composites or summaries of other phenomena, are indicated as macro level data. Examples are numbers of telephone main lines, cars and television sets per 1,000 population. Most other data are at micro-level and represent differences in consumption and consumer behavior. Examples are numbers of national or international calls, numbers of cars or television sets owned per family. Our working definition for the macro-micro dichotomy is included in chapter 3, pages 82-83.

2.2.4. Forms of convergence

Convergence means moving from different positions towards some common point (Inkeles 1998:30). But there are several patterns over time.

- (1) Change may stop short of actual convergence and a critical threshold of stable differences may remain. Moreover, on some dimensions there is a ceiling that most of the advanced countries reached long ago, leaving no room for further convergence. An example is the percent of primary school enrolment (Inkeles 1998:45).
- (2) Movement toward a common point does not necessarily mean movement in the same direction. An example is convergence of age of marriage, which may come down in some countries, but move upwards in others (Inkeles 1998: 31-33). Convergence and crossover takes place when two converging lines meet, fuse, cross and start to diverge.

This phenomenon is illustrated by the pattern of population growth rates for developed and less developed countries (Inkeles 1998:40).

- (3) There may be thresholds that are more important than absolute differences. An example is education. Once a modern school system has been introduced, further expenditures in education seem not to produce any significant improvements (Inkeles 1998:34).
- (4) Parallel change, without convergence. An example is the remaining gap in wealth separating the less developed and more industrialized countries (Inkeles 1998:37).
- (5) Divergence, meaning a movement away from a given point, common or not, to new points farther apart than was the case in the original condition (Inkeles 1998 38-39). Pace and direction of movement are not always consistent. Clear convergent trends are occasionally followed by periods of new divergence (Inkeles 1998:123).
- (6) Convergence masking diversity. Statistical indicators generally defined as macro-level data (see section 2.2.3.) are by definition summaries of many single, discrete subsystems. These statistics are also composites of several different indicators. Such summary indicators may become more alike with economic development, but they may mask diversity or actual divergence in the component elements or subsystems making up the summary indicator. An example by Inkeles (1998:41) is convergence of the percent of GNP devoted to public expenditure on education in the West. Underneath this common convergence there was a marked divergence in how the extra money was apportioned among the three levels of education. So macro-level data may suggest convergence, while at the micro level divergence takes place.
- (7) Change patterns may vary by subsystem and within subsystems (Inkeles 1998:48). Some types of clothing may diffuse and converge fast (blue jeans), while this is not representative for the clothing category.
- (8) With respect to consumption, some consumption patterns converge significantly, while others do not and the rate of convergence varies enormously between product categories. Food internationalizes slowest (Van Mesdag 1999:81).

2.2.5. Convergence-divergence in consumer behavior

A product is more than a physical item; it is a bundle of satisfactions the buyer receives. Although the primary function of some products may be universal, the other benefits are imputed by the values and customs within a culture (Cateora 1990:408). The primary function of a car may be universal, but the psychological features that serve as appeals for preferring one type of car to another, are likely to vary by culture.

Already in the 1970s, empirical evidence was found that consumer behavior varies across countries (Green et al. 1975) and Green & Langeard 1975). Insensitivity of these differences has led to marketing failures by well-known US food companies.

“The manager should be aware that people in different nations may vary significantly in their purchasing motivations and should not accept such statements as “people around the world are becoming increasingly alike”, unless accompanied by solid evidence which pertains to his specific products and markets” (Green, Cunningham and Cunningham 1975: 29).

Expectations that the European Common Market would lead to convergence of consumer behavior have not come true. At the end of the 1980s, several authors noticed that

the spread in per capita income between the richest and poorest member countries still was considerable and fewer than 20 percent of the EC population had traveled to another country. Such differences are responsible for substantial variation in consumer preferences and product usage behaviors across national boundaries. The consumer is a product of his national history, culture, education and circumstance. Increased similarity of consumer behavior in Europe seems mainly to relate to adoption of American products, which is mistaken for convergence. Similarity in buying motives across national boundaries is often based on anecdotal evidence. User needs, habits and buying are not identical in all the national markets of Europe. Examples are how both buyers' perceived needs and buyers' perceptions of product attributes of cars were found to differ among countries. Environmental claims can be powerful in all markets, but seem to be disproportionately so in the north. Chlorine, as a bleach and as a smell, is highly acceptable in the south, less so further north (Colvin et al. 1980; Dowdall 1989; Keen and Hellebosch 1990; McLauchlin 1993; Quelch and Buzzell 1989; Reichel 1989; Sriram and Gopalakrishna 1991).

The paradox of globalization is that at the macro level, consumption converges, but at the micro level it diverges. Generally speaking, beer consumption is growing, but there is an increase in different types of beer and the way it is consumed. Consumers do not buy products or services for utility or price reasons; they buy them for such nonfunctional reasons as novelty, curiosity, and conspicuous consumption. Superficially, one may think that Europeans are homogeneous in their behavior. This conclusion is easily drawn when Europe is compared with Asia. But when one observes the differences within Europe, the comparison falls short. Also within Europe, the role of the family varies, as do religion, and the daily organization of life. And these differences are stable. The Italians keep consuming more vegetables than the other Europeans, but also more chocolate. Most domestic markets are becoming more divergent as consumers demand more choices, and the result is market segmentation or fragmentation. The more ubiquitous a global brand becomes, the more likely it is to stimulate the emergence of rival products catering more precisely for local preferences (Lester 1987; Sheth 1986; Usunier 1996; Whitelock and Pimblett 1997).

Findings of a study comparing country-of-origin effects on preferences for automobiles between Germany and the United Kingdom demonstrate that important differences in consumer preferences exist even between two European Union countries that are more similar in terms of their economic development and living standards than, for example, Greece and Denmark" (Diamantopoulos et al. 1995).

Green, Cunningham and Cunningham (1975) compared differences in product attribute appeals of soft drinks and toothpaste in the United States, France, India and Brazil. Even though the basic product may serve essentially the same need in each country, the findings suggest that several cultural and environmental factors influence the characteristics of the product that people emphasize in its purchase.

2.2.6. Convergence-divergence in advertising practice

Although textbooks keep teaching the mantra of convergence of people's behavior and globalization of markets, many practitioners in advertising have realized that 'one-world' marketing, branding or advertising strategies may look good on paper, but seldom work quite as well in practice. The step from global marketing to global advertising seems to be a

logical one, but it is not. Increasingly, statements are found that creative presentation doesn't travel and there are plenty of anecdotes to prove it. The barriers to standardization of advertising include cultural, communicative, legislative, competitive and executional problems. Particularly humor, the use of symbols and animation must be evaluated carefully. Some cultures are too literal-minded to distinguish between fantasy from reality. Translating an English advertising campaign into German doesn't make it a good German campaign. Completely standardized pan-European campaigns are only appropriate when the same product specification is being sold in each market to the same target consumers, for the same end use and in similar product life cycle stages. Such circumstances are extremely rare, even when dealing with such well established brands as Coca-Cola and McDonald's (Banerjee, 1994; Colvin et al. 1980; Douglas and Urban 1977).

Advertising practices vary with respect to creative approaches, advertising-to-sales ratios and allocation of the advertising budget by media (Synodinos et al. 1989). Hill and Still (1984) found that in less developed countries a range of aspects are adapted across countries: The product, package, brand name and measurement units. Many of these depend on market conditions, including consumer behavior. An empirical study by McCollum Spielman Worldwide revealed that responses to the same commercials across European nations vary, demonstrating the difficulty of finding a standardized 'universal' strategy or approach, even for brands in what is assumed to be a 'universal' product category (chocolate/candy), targeted at a 'universally converging' group of consumers (teenagers) (Banerjee 1994).

The ideal strategy for the pan-European advertiser is viewed to be a pool of centrally created ads, each designed to be of maximum appeal in each of the target countries. This can only be achieved if the execution is tailored to reflect the cross-cultural differences across the target countries. Successful international advertising is country-specific advertising as culture influences every aspect of marketing. The products people buy, the attributes they value are culture-based choices. Different levels of awareness, knowledge, familiarity, and affect with people, products in general, and specific brands, may result in differential attitudes toward similar products. Slowly, across countries, but also within large countries such as the US, the marketing and advertising industry is recognizing the principles of diversity and the need to adapt marketing and advertising to this diversity (Becatelli and Swindells, 1998; Dibb et al. 1994; Freiherr v. Fircks 1993; Müller 1998; Neff 1999). Comparative, cross-cultural studies of advertising find cultural differences increasingly reflected in advertising. Both in Asia and in Europe, advertising appeals vary between countries. In Europe convergence has not been found in the past 40 years. Also the media are not converging (Smith 1998; Snyder et al. 1991; Tse et al. 1989).

2.2.7. Empirical studies of convergence-divergence

There are few empirical studies of convergence-divergence. Next to the seminal work by Inkeles (1996, 1998) who reviews several forms of societal convergence and divergence, we mention one empirical study focusing on convergence-divergence of income across nations and one focusing on convergence of macro-indicators of comparative wealth of nations. Both studies do not confirm assumptions of convergence and provide instead evidence of divergence.

Inkeles (1998) reviewed various societal convergence effects of industrialization and modernization, such as of educational systems and family patterns. He did not find univocal evidence of convergence, but a variety of forms and levels of convergence and divergence, as described in section 2.2.4. He found convergent patterns at macro level such as of primary and secondary education enrollment ratios between 1955 and 1979 for the world as a whole. At micro level he found examples of divergence, such as school class size (Inkeles 1998:126-131). Family and kin patterns were found to be "remarkably stable in the face of great variation in their surrounding socioeconomic conditions" (Inkeles 1998:148).

In the rich regions of the world, incomes may be converging, but on a worldwide basis, they are not converging. Sarkar (1999) examined the issue of convergence of the standards of living in the North (a sample of 26 rich countries mostly in the northern hemisphere) and the South (a sample of 38 poor countries mostly in the southern hemisphere) on the basis of internationally comparable real income over the period 1950-1992. He found significant evidence of a widening gap in the standards of living of the two groups of countries. He also found evidence of convergence within areas: between less rich North and richer North and between poorer South and less poor South. In the process of growth during the post-second world war period (1950-1992), the poorer southern countries had been coming closer to the richer countries of the South in terms of standard of living. Similarly, the less rich northern countries are coming closer to the richer countries of the North. But the gap in the standards of living of the North and South has been widening during the same period. In this period, the sample of 38 poor countries experienced a lower rate of growth in their average real income per capita than what is experienced by the sample of 26 rich countries. The gap in the standards of living between the two groups has been widening over the period of the study. Countries of the North experienced convergence among themselves. The bottom 16 countries of the North (real GDP/cap < \$5,000) experienced a catching up with the average standard of living of the top nine countries (real GDP/cap > \$ 5,000).

Craig, Douglas and Grein (1992:784), examined patterns of convergence and divergence among a set of industrialized nations from 1960-1988, based on 15 selected macro-environmental variables (e.g. infant mortality, cost of living, passenger motor vehicles, telephones in use, students, book production, daily newspaper circulation). The study focused specifically on sixteen countries in Western Europe, Japan and the US, so as to examine patterns of convergence among countries at a similar level of economic development. Findings were that, rather than converging in terms of macro-environmental characteristics, countries are becoming more divergent. While there were significant changes in mean dissimilarity between countries in the periods 1960-1970, 1970-1980 and 1980-1988, the most dramatic increase was between 1980 and 1988. Thus, the data do suggest - contrary to what is commonly believed - that despite increased interaction and communication between industrialized nations they are not becoming more similar in terms of macro-economic characteristics.

To conclude this section: Literature does not provide univocal evidence of convergence. If convergence is demonstrated, it is only at the macro level using composite statistical data that generally serve as indicators of economic development of nations. These are the types of data generally used to segment markets for international marketing. No evidence of convergence at micro-level or convergence of values is found, but authors of textbooks and articles on marketing, consumer behavior and advertising continue to express

assumptions of convergence. An exception is Herbig (1998), whom we quote to conclude this section:

“Are we in fact globalizing? If we are, one ought to see a convergent effect of many cultural indexes. Of the many cross-cultural studies that have been conducted, several have been longitudinal in nature. Hofstede’s analysis of IBM managerial (sic)¹ value survey data is the most classic. The results from his work have been replicated and confirmed many times over. In more than 20 years since the original study was made, the replications (and even the later duplicate IBM study done by Hofstede) indicate very clearly that (1) no convergence is taking place; that is, values of the indexes are not collapsing toward a common mean; and (2) if anything, there is a divergence occurring; that is to say, values among member countries of the same cluster are becoming even more distant - slowly but certainly. Americans, British, Canadians, Australians, and New Zealanders, although from the same Anglo background with less than 250 years spread, are diverging; it is not only with humor that one speaks of the Americans and British as two nations divided by a common language” (Herbig 1998:41).

2.3. CULTURE AND VALUES

According to Vinson, Scott and Lamont (1977), different value orientations cause variations in preferences for products and brands. Values of consumers and marketers are defined by their culture, hence the importance of understanding the value concept and culture. In the early literature, authors preferred the ‘hard’ criteria for comparing markets to the ‘fuzzy’ cultural factors. In the marketing and advertising profession there is little knowledge of culture and its implications. Those who try to explain phenomena with cultural variables generally do this from the perspective of their own culture and thus from the ethnocentric point of view. The unconscious reference to one’s own cultural values is a root cause of most international business problems (Lee 1966). In the United States, if the influence of culture on marketing and advertising was acknowledged at all, it was limited to distant countries and to the ‘uneducated masses’. Executives, although they readily admit that culture is probably important, found cultural concepts too fuzzy for day-to-day use, or a convenient catchall for the many differences in market structure and behavior that cannot be readily be explained in terms of more tangible factors (Buzzell 1968; Dunn 1966). Only slowly it was recognized in international marketing that the study of national character has value, that national differences exist, that these differences can be observed and tabulated, and can be recognized as influencing the behavior of both consumers and marketing decision makers.

In various time periods people admit that advertising is a reflection of culture, be it a distorted mirror, because it reinforces only certain lifestyles. These cultural effects are often less obvious and more difficult to research than economic consequences, but they can be more pervasive and serious in the long run (Clark 1990; Pollay and Gallagher 1990). An individual’s cultural environment significantly affects the way he or she perceives

¹ Hofstede analysed values of employees, not of managers. This mistake is so frequently made, that in the preface of his book "Cultures and Organizations, Software of the Mind", Hofstede states that he lost count of the number of people who cited his study as a value survey of managers. The data he used were from IBM employees and that makes quite a difference.

information. For effective communication, knowledge of the culture of the receiver is necessary. Frames of reference are shaped by beliefs, values, traditions, and other cultural factors (Kanso 1992; Schramm 1954).

2.3.1. Culture defined

Hofstede (1991) defines culture as

“The collective mental programming of the people in an environment. Culture is not a characteristic of individuals; it encompasses a number of people who were conditioned by the same education and life experience” (Hofstede 1991:5).

Geertz (1973:44) stated that culture is best seen not as complexes of concrete behavior patterns - customs, usage, traditions, habit clusters - but as a set of control mechanisms - plans, recipes, rules, instructions (what computer engineers call "programs") - for the governing of behavior. Man is dependent upon the control mechanisms of culture for ordering his behavior. Culture is what defines a human community, its individuals, and social organizations. Individuals are products of their culture and their social groupings; therefore, they are conditioned by their sociocultural environment to act in certain manners. Values of national culture follow the normal distribution; although there are many different individual personalities in any society, the most frequent is used to approximate national culture.

In the context of national culture, also the term ‘national character’ is used. Researchers explore national character to understand the way people in given nations think, or, “what makes them tick”. The cultural environment of consumption is the complex set of beliefs, values, norms and attitudes acquired by consumers as part of their national heritage (Inkeles 1996; Nakata and Sivakumar 1996; Papavassiliou and Stathakopoulos 1997; Venkatesh 1995). “Culture is to society what memory is to individuals. It includes the things that have “worked” in the past. It includes shared beliefs, attitudes, norms, roles, and values found among speakers of a particular language who live during the same historical period in a specific geographic region. These shared elements of subjective culture are usually transferred from generation to generation. Since communication requires language and occurs most readily among people who live in the same historic period and sufficiently close to each other to communicate easily, language, time, and place help define culture (Triandis 1995). According to Przeworski and Teune (1970:51-54), similar diffusion patterns resulting from historical learning can explain similar behavior patterns. Historical, institutional, behavioral or physical settings constitute characteristics to which all individuals within a system are, at least potentially, exposed. Historical factors are likely to directly affect the behavior of individuals, but also indirectly as they influence properties of systems that in turn affect behavior.

Huntington (1996b:478), although he sheds doubt on the use of culture as a variable, sees national culture as a useful unit of analysis: “The concept of culture is a tricky one in social science. ... If no other causes can plausibly explain significant differences between societies, it is inviting to attribute them to culture. Yet, the nation-state is probably the most important unit for the analysis and comparison of culture and its effect on development. At least 85 percent of the world’s population is in national societies.”

To some authors, climate and ecology ("physical settings") are the root causes of culture. Parker (1997) sees climate as the primary cause of behavioral differences. Kim (1994) traces cultural differences - in particular the difference between individualism/collectivism - back to ecological differences. Van de Vliert et al. (2000) find a relationship between temperature and wealth. Countries with colder climates are wealthier than countries with warm climates. The influence of climate is particularly important for analysing differences in consumption of food. The relationship between climate and culture is also described in chapter 3, pages 89-92.

2.3.2. Dimensions of culture

Several scholars have described cultures according to specific characteristics (Harris and Moran 1987) or have grouped cultural values into models of dimensions of national culture. Some of these models were developed for the purpose of international management (Kluckhohn and Strodtbeck 1952, 1962; Hall 1976, 1984; Hofstede 1980, 1991; Schwartz 1987, 1990, 1994, 1999; Smith and Trompenaars 1993, 1996).

Examples of cultural characteristics distinguishing countries described by Harris and Moran (1987:190-195) are: Sense of self and space; communication and languages; food and feeding habits; time consciousness; values and norms; beliefs and attitudes; work habits and practices. These characteristics are based on observations and interestingly many of those are included in dimensional models derived from large surveys. The advantage of dimensions over descriptions is the empirical base and the possibility to quantify comparison with consumption. In the next sections value dimensions developed by five scholars are described: by Kluckhohn and Strodtbeck, Hall, Hofstede, Schwartz and by Smith and Trompenaars.

2.3.2.1. Kluckhohn and Strodtbeck: Five value orientations

Kluckhohn and Strodtbeck (1952, 1961) proposed five value orientations on the basis of their investigations of small communities in the Southwest United States: (1) perception of human nature (good/evil); (2) relationship of man to his environment (subjugation/mastery); (3) time orientation (past/present); (4) orientation toward the environment (being and doing); (5) orientation toward human relationships (hierarchical/individualistic). Within the US the most important differences found were between the dominant population and the native Americans. Four of the five value orientations are recognized in later dimensional studies, such as the study by Hofstede. Differences between cultures with respect to the relationship between man and nature are still viewed as rather unique.

There are basically three types of relationship between man and nature: "mastery-over-nature" (man is to conquer nature), "harmony-with-nature" (man is to live in harmony with nature) and "subjugation-to-nature" (man is dominated by nature). In the Western world man is viewed as separate from nature. The North American relationship to nature in particular is that it should be conquered, controlled. Nature and the physical environment can and should be controlled for human convenience. To most North Americans the

expression "to move a mountain" is not a metaphor symbolizing the impossible but rather an optimistic challenge (Ferraro 1991). The view of US culture is that it is the person's responsibility to overcome obstacles that may stand in his or her way. The harmony-with-nature orientation draws no distinction between or among human life, nature and the supernatural. Each is an extension of the others (Gudykunst and Ting-Toomey 1988). The Japanese experience of nature is one of communion, of exchange, characterized by a subtle intimacy. It is an experience of identification with nature. Westerners tend to explain the Asian reverence of nature as a relationship with God, which involves living in harmony with the world of nature. Takeo Doi (1985), a Japanese psychologist, says that in Japan, God as a creator is absent and therefore, human beings seek comfort by attempting to immerse themselves completely in nature. Other cultures, such as many African cultures see people as dominated by nature and the supernatural forces play a dominant role in religion. This subjugation-to-nature involves the belief that nothing can be done to control nature.

2.3.2.2. Hall: High and Low Context

Hall (1976, 1984) distinguishes cultures according to the degree of context in their communication systems. In a high-context communication or message most of the information is either part of the context or internalized in the person; very little is made explicit as part of the message. The information of a low-context message is carried in the explicit code of the message. In general, high-context communication is economical, fast and efficient. However, time must be devoted to programming. If this programming does not take place, the communication is incomplete. To the observer an unknown high-context culture can be completely mystifying because symbols, not known to the observer, play such an important role. Thus, high context culture communication can also be defined as inaccessible. Low-context cultures are characterized by explicit verbal messages. Effective verbal communication is expected to be explicit, direct and unambiguous. Low-context cultures demonstrate high value and positive attitudes towards words. The Western world has had a long tradition of rhetoric, a tradition that places central importance on the delivery of verbal messages. Argumentation and rhetorics in advertising are more found in low-context cultures, while advertising of high-context cultures is characterized by symbolism or indirect verbal expression (De Mooij 1998a).

Hofstede (1980, 1991) finds a correlation between collectivism and high-context in cultures. In collectivist cultures, information flows more easily between members of groups and messages are more implicit. Collectivist cultures show more indirect communication versus more direct communication in individualist cultures. Another explanation for the difference between cultures with respect to indirect communication and the use of symbols is the degree of homogeneity of cultures. Homogeneous cultures have more in common with respect to cultural heritage and thus, their members can rely on shared symbols more than members of heterogeneous cultures can (De Mooij 1998a). Cultures are on a sliding scale with respect to context. Most Asian cultures are high-context, while most Western cultures are low-context cultures, extremes being Japan and China (high-context) on the one end of the scale and Germany, Switzerland and the USA (low-context cultures) on the other end. Particularly Americans need data to evaluate things. For foreigners, the quantity of numbers and statistics encountered in the media and in daily conversations is stunning (Althen 1988). Many Americans don't seem to be able to evaluate the performance of anything unless they can attach a number to it (Hall 1984).

2.3.2.3. Hofstede: Five dimensions of national culture

Geert Hofstede (1980, 1991, 2001) developed a model of five dimensions of national culture that helps to understand basic value differences. This model distinguishes cultures according to five dimensions: Power Distance, Individualism/Collectivism, Masculinity/Femininity, Uncertainty Avoidance, and Long Term Orientation. The dimensions are measured on a scale from 0 to 100. The model is based on quantitative research and gives scores for 85 countries. The combined scores for each country explain why people and organizations in various countries differ. The model is based on 15 years of research, 116,000 questionnaires were used in 72 countries and in 20 languages between 1967 and 1973. Later, Michael Harris Bond did a Chinese Value Survey in 22 countries. The results were validated against about 40 other cross-cultural studies from a variety of disciplines including sociology, market research and medicine. Several replications have demonstrated that Hofstede's country scores are still valid.

Power Distance (PDI)

Power distance can be defined as "the extent to which less powerful members of a society accept and expect that power is distributed unequally". It is reflected in the values of the less powerful members of society and in the more powerful ones. It influences the way people accept and give authority. In large power distance cultures everyone has his/her rightful place in a social hierarchy and as a result acceptance of and giving authority is something which comes naturally. To the Japanese, behavior that recognizes hierarchy is as natural to them as breathing. It means 'everything in its place'. In cultures scoring lower on the power distance index such as the Americans, authority has a negative connotation. Small power distance cultures stress equality in rights and opportunity in the work place. In large power distance cultures there are strong dependency relationships between parents and children, bosses and subordinates, professors and students, masters and learners. In small power distance cultures children are raised to be independent at a young age. Americans will avoid becoming dependent on others and they do not want others, with the possible exception of immediate family members, to be dependent on them. In large power distance cultures status is important to show power and older people are important because of respect for old age. In cultures of small power distance, powerful people try to look less powerful and older people try to look younger (Hofstede 1991:23-48)

Individualism/Collectivism (IDV)

"People look after themselves and their immediate family only or people belong to in-groups who look after them in exchange for loyalty". In individualist cultures values are in the person and are individualist. People want to differentiate themselves from others. In collectivist cultures, which score low on the individualism index, identity is based in the social network to which one belongs. People prefer to conform to the group. In individualist cultures people are "I" conscious, express private opinions and self-actualization is important. Individual decisions are higher valued than group decisions. There is more explicit, verbal communication. In collectivist cultures people are "we" conscious, their identity is based on the social system. Harmony with in-group members and avoiding loss of face is important. Most Western countries score individualist, Asian and Latin American countries collectivist. South European countries are less individualist than those in the north of Europe. Individualist cultures are universalistic cultures, while collectivist cultures are

particularistic. People from individualist cultures tend to believe that there are universal values that should be shared by all. People from collectivist cultures on the other hand accept that different groups have different values. Hall (1984) observes that Americans, more than most seem dominated by the need to shape other people in their own image. The Japanese, Chinese and other Asians, feel so unique that they cannot and will not imagine that Westerners will ever be able to adopt their values and behavior (Hofstede 1991:49-78).

Masculinity/Femininity (MAS)

"The dominant values in a masculine society are achievement and success, the dominant values in a feminine society are caring for others and quality of life". In masculine societies performance and achievement are important. Status is important to show success. There is a tendency to polarize; big and fast are beautiful. Feminine societies score low on the masculinity index and are more service-oriented, have a people orientation, small is beautiful. There is a tendency to strive for consensus. The quality of life is more important. Status is not so important to show success. Being a "winner" is positive in masculine societies and is negative in feminine societies. In masculine cultures children learn to admire the strong. In feminine cultures children learn sympathy for the underdog and anti-hero. A consequence of this dimension is variation in the degree of role differentiation: small in feminine societies, large in masculine societies. In feminine cultures males can take typical female jobs without being seen as a 'sissy'. The masculine/feminine dimension discriminates between cultures particularly with respect to values related to winning, success and status as used in advertising appeals, so it is an important dimension for marketing and sales. (Hofstede 1991:79-108)

Uncertainty Avoidance (UAI)

"The extent to which people feel threatened by uncertainty and ambiguity and try to avoid these situations". Life is unpredictable, and the only certain thing is that in the end there is death, but it is not known when. Some people do not mind while others hate uncertainty or ambiguity and try to cope with it by making rules and prescribed behavior. In cultures of strong uncertainty avoidance, there is a need for rules and formality to structure life and belief in experts. There is more formal communication. People in strong uncertainty avoidance cultures have a higher level of anxiety and aggressiveness and showing emotions is accepted. Conflict and competition are threatening. Weak uncertainty avoidance cultures feel that there should be as few rules as possible. They believe more in generalists and common sense and there is less ritual behavior. Conflict and competition are not threatening. A core element of this dimension is the search for truth, which is basically a Western concept (Hofstede 1991:109-138).

Long Term Orientation (LTO)

"The extent to which a society exhibits a pragmatic future-oriented perspective rather than a conventional historic or short term point of view". Consequences of long-term orientation are that there is not one truth, a long term orientation, acceptance of change, perseverance, thrift and pursuit of peace of mind. The opposite is the short-term orientation. The combination of long-term orientation and collectivism results in family ties, long-term thinking and other elements of Confucian philosophy, such as filial piety and paternalism. Most east-Asian countries score high on this fifth dimension particularly the ones with large Chinese populations. Anglo-Saxon societies score low, but there are some Western countries that score medium or relatively high, such as Brazil and the Netherlands. What is often perceived as paradoxical in the measurements on this index is the combination of

strong respect for tradition and short-term orientation in a large part of the western world, while respect for old age and ancestor worship are such strong elements of Asian value systems. This is because the index measures the relative value given to one side over the other. If Asians value tradition, they value pragmatism and thrift even more. Because measurements started later than those for the other dimensions did, scores for fewer countries are available (Hofstede 1991:159-174).

The fifth dimension was discovered in cooperation with Michael Bond and was originally labeled 'Confucian Dynamics' (Hofstede and Bond 1988). Michael Bond in Hong Kong sampled a domain of values, derived from Chinese culture (Chinese Value Survey). He assembled a group of researchers named the Chinese Culture Connection (CCC), who presented these values to students from 22 countries. Respondents were required to rate the importance of each value. After standardization within each culture, an ecological factor analysis yielded four factors, labeled "Integration", "Confucian work dynamism", "Human-heartedness", and "Moral discipline" (Smith et al. 1996). In the literature, these dimensions are often referred to as the "Chinese Culture Connection" (CCC).

Although Hofstede's dimensions are increasingly used as independent variables for comparative cross-cultural studies, the natural question to ask is whether Hofstede's country scores, produced in the late 1960s, early 1970s, are valid to use some thirty years later. Also, because Hofstede's dimensions were derived from answers by IBM employees only, it is a valid question whether the same dimensions are found if other matched samples of respondents are used. Several replications of Hofstede's study on different matched or non-matched samples have proved that his data are still valid. Søndergaard (1994) analysed applications and replications of Hofstede's work. He recorded in total 61 replications. The analysis of the replications showed that the differences predicted by Hofstede's dimensions were largely confirmed. There are remarkably few non-confirmations.

Hoppe's study of elites in nineteen countries was the first comprehensive follow-up study (1998). Hoppe's sample of more than 1,500 respondents belonged to the managerial, professional, political, and academic elites in 17 Western and Southern European countries plus Turkey and the United States. They were alumni of the Salzburg Seminar, a high-level international study center in Austria. The correlations between the resulting country scores and Hofstede's country scores were highly significant. The Spearman rank order correlations between the two were as follows: PDI: .76***, IDV: .72***, MAS: .83*** and UAI: .90***

Shane (1995) used Hofstede's uncertainty avoidance questions in a survey among 4405 individuals in forty-three organizations from sixty-eight different countries for measuring preferences for innovation championing roles and found that the cultural value of uncertainty acceptance is significantly associated with preferences for these roles. Shane and Venkataraman (1996) surveyed preferences of managers for innovative behavior in 28 countries and found correlations with individualism, power distance and uncertainty avoidance.

Another extensive replication was a survey among commercial airline pilots (1996). A research group at the university of Texas at Austin, USA, found highly significant differences between the ways aircraft are operated. In 1996 they collected data from more than 13,000 pilots of 25 airlines in 16 countries. Analyses of the data support the

universality of pilot norms and attitudes in certain areas but also the strong influence of national culture on others. Strong cross-cultural differences were observed in the areas of command interactions and tolerance for rules, routines and set procedures. Pilots from the 16 countries in the study varied dramatically in their preference for an egalitarian versus a hierarchical command style as well as for flexibility and autonomy versus adherence to and compliance with the rules and set procedures. Thus, power distance and uncertainty avoidance have been identified as the most relevant dimensions for aviation. This replication of Hofstede's work proved its validity. Using a distinctly different population (commercial airline pilots), from a distinctly different time period (1990s), correlations as high as .94 were observed between country-level scores on three of Hofstede's dimensions of national culture - power distance, individualism and masculinity (Helmreich et al. 1996).

For marketing, the most useful replication was done in 1996. In the 1996/1997 EMS survey, a combination of telephone interviewing and written questionnaire, the VSM 94 questions (Hofstede's Value Survey Module of 1994 (VSM94) contains 20 questions, 4 for each dimension) were included in the EMS questionnaire. The EMS target is main income earners in the top 20 percent of households by household income within each of the countries surveyed. EMS 97 covered 15 European countries plus Luxembourg: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom. In total in 1996/1997 34,667 telephone interviews and 15,940 questionnaires were completed. Inclusion of the questions of the VSM 94 in the written questionnaire (n = 6,680) resulted in country scores that, taking into account the fact that the samples were not as well matched as they should be, were beyond expectations. Three of the four dimensions (IDV, MAS and UAI) correlated significantly with the Hofstede country scores from the IBM sample, and for the first time in Europe, scores for the fifth dimension were found. The country scores derived from the answers are presented in table 2.3. EMS derived country scores are labeled EIDV, EMAS, EUAI and ELTO.

Due to the heterogeneity of the target, the power distance dimension could not be measured, probably because the levels of management positions and type of companies were too diverse. As for the 15 countries there is a strong correlation between power distance and uncertainty avoidance, the latter scores are likely to include PDI values. A number of correlations demonstrate this to be true.

Table 2.3. Country scores derived from EMS as compared with Hofstede's IBM country scores

	PDI	IDV	EIDV	MAS	EMAS	UAI	EUAI	LTO	ELTO
Austria	11	55	66	79	60	70	58		30
Belgium	65	75	90	54	41	94	78		25
Denmark	18	74	107	16	33	23	7		8
Finland	33	63	73	26	11	59	34		19
France	68	71	93	43	75	86	90		9
Germany	35	67	55	66	51	65	62	31	26
Great Britain	35	89	106	66	44	35	54	25	24
Ireland	28	70	97	68	54	35	49		22
Italy	50	76	90	70	80	75	79		31
Netherlands	38	80	91	14	12	53	45	44	39
Norway	31	69	97	8	32	50	33		3
Portugal	63	27	74	31	48	104	81		27
Spain	57	51	71	42	44	86	90		34
Sweden	31	71	102	5	12	29	9	33	44
Switzerland	34	68	92	70	46	58	62		18

Correlations between IBM and EMS scores: IDV: .54*; Mas/Fem: .74***; UAI: .89***
Correlation between EUAI and PDI = .75***

Source: data are from Hofstede (1991) and EMS 1996/1997. © Inter/View International

For three of the dimensions the EMS country scores correlate significantly with the Hofstede's IBM scores. This is of great importance for the acceptance of the application of Hofstede's model to marketing and advertising. The UAI correlation is most significant, MAS less and IDV least. The latter is due to the extremely low score of Germany, but also the relatively high scores of Spain and Portugal. This is probably due to the high-income level of the respondents in countries where the income gap is relatively large. The relatively low significance of the MAS correlation results from a very high score of France. The MAS dimension includes two value domains, competitiveness and role differentiation. It may well be that what is measured in the EMS sample, is more focused on competitiveness, as the target is managers in business, while in a more general target, the two domains are more balanced.

Hofstede's dimensions are increasingly used as a conceptual framework outside their original setting. They are used to classify and to explain the influence of culture on various research topics. The list of 274 citations compiled by Søndergaard (1994) is indicative of a widespread and growing use. Researchers on various topics in the field of marketing have used Hofstede's dimensions as a paradigm. Nakata and Sivakumar, (1996) stated that there are several reasons for using Hofstede's five cultural dimensions: Hofstede's (1980) study is regarded as the most extensive examination of cross-national values in a managerial context. Independent studies identify the same or similar dimensions, indicating their systematic occurrence in many different cultures.

2.3.2.4. Schwartz: Seven value types or motivational domains

Schwartz (1987, 1990, 1994, 1999) presents an alternative conceptual and operational approach for deriving cultural dimensions of work-related values and applies the new approach in a study of value priorities in 87 samples (teachers and students) from 41 cultural groups in 38 nations. The analysis was expected to either support Hofstede's dimensions

and refine them into finer-tuned dimensions (Schwartz 1990), or to reveal that a different set of cultural dimensions emerges when a more comprehensive set of values is analysed (Schwartz 1994).

Originally Schwartz and Bilsky (1987, 1990) searched for a theory of a universal psychological structure of human values, including types of value contents that people from all cultures are likely to distinguish (e.g., achievement and security). The theory suggests which types of values fit together compatibly and which are opposed. To support the theory (1987), data on the values of Israeli teachers and German college students were presented. A later study of 1990 included samples from five more countries. The seven value types (or motivational domains) distinguished by Schwartz (1994:101-106) are described after this; correlations with Hofstede's dimensions are added.

Conservatism

The value type labeled "Conservatism" is constituted of those values likely to be important in societies based on close-knit harmonious relations, in which the interests of the person are not viewed as distinct from those of the group. All of these values emphasize maintenance of the status quo and avoidance of actions of individuals that might disturb the traditional order. The self lacks autonomous significance but has meaning as part of the collectivity. Cultures that emphasize Conservatism values are primarily concerned with security, conformity, and tradition. Conservatism correlates negatively with Hofstede's individualism and positively with power distance.

Intellectual and affective autonomy (two subtypes of 'Autonomy')

Autonomy values are important in societies that view the person as an autonomous entity entitled to pursue his or her individual interests and desires. Two aspects are related: emphasis on self-direction, stimulation and hedonism. This value type is negatively correlated with the Conservatism value type. Thus, a polar opposition exists of Autonomy versus Conservatism. Autonomy correlates positively with Hofstede's individualism and negatively with power distance.

Hierarchy

The Hierarchy value type emphasizes the legitimacy of hierarchical role and resource allocation. This value type forms a broad self-enhancement region together with the next type 'Mastery', the type with which it is correlated most positively. The Hierarchy value type is weakly correlated with Hofstede's collectivism.

Mastery

The values in this value type emphasize active mastery of the social environment through self-assertion. Mastery values promote active efforts to modify one's surroundings and get ahead of other people. This value type is correlated with Hofstede's masculinity.

Egalitarian commitment

Promoting the welfare of other people is a value included in the value type Egalitarian commitment. This is a social commitment that can occur among equals. There is a negative correlation with Conservatism and a positive correlation with Autonomy. This value type correlates positively with individualism and negatively with Hofstede's power distance.

Harmony

This value type, emphasizing harmony with nature, is found opposite Mastery, just as Kluckhohn and Strodtbeck's value orientation. Social harmony as a value is also included. Harmony values stand in opposition to value types that promote actively changing the world through self-assertion and exploitation of people and resources." This value type correlates (only slightly) with Hofstede's uncertainty avoidance.

The Schwartz value types partly overlap with Hofstede's dimensions. They include a number of values that are also included in the Hofstede dimensions, but they seem to be less clear cut. The strongest relationships are with individualism/collectivism. Schwartz has covered 29 nations, plus a number of sub-cultures or regions within nations. Only 24 of these are also covered by Hofstede. The most recent follow-up studies are by Ros, Schwartz and Surkiss (1999) who apply the model to work goals and values and by Schwartz (1999), who distinguishes a total set of 44 profiles, suggesting the existence of broad cultural groupings of nations. These groupings are related to geographical proximity, and based on shared histories, religion, level of development, culture contact, and other factors. In Europe scores on the Schwartz dimensions are available only for nine countries: Denmark, Finland, France, Germany, Italy, the Netherlands, Portugal and Spain. Because of the limited number of countries measured in Europe, the Schwartz value types cannot be used for the purpose of measuring cross-cultural consumer behavior in Europe.

2.3.2.5. Smith and Trompenaars: Seven value dimensions

Trompenaars (1993) found seven dimensions of work-related values. These are: "universalism-particularism", "achievement-ascription", "individualism-collectivism", "emotional-neutral", and "specific-diffuse", "time orientation" and "orientation to nature". Smith et al. (1996) continued Trompenaars' research with the purpose to find structures and interrelationships among the available measures, drawing from the results of various earlier surveys (Hofstede, Schwartz, CCC) and the earlier work by Trompenaars (1993). The values of 8,841 managers and organization employees from 43 countries were surveyed. The range of nations paralleled many of those surveyed by Hofstede (1980) and samples from ex-communist nations were added. Three dimensions were extracted from the data. A first dimension was like the achievement-ascription orientation, similar to Hofstede's (1980) dimensions individualism-collectivism and power distance. Dimension 2 included items similar to the concept of individualism-collectivism. They cover involvement in a group or organization on the basis of *loyalty* or on the basis of *utilitarian* considerations. Items of the third dimension overlap with the others. The results demonstrate that there is considerable replicability in the results emerging from value surveys sampling relatively large numbers of nations. The three dimensions that emerged are significantly related to nation scores collected at widely differing times, and among quite different types of samples, by earlier researchers. From this perspective, the methodological weaknesses inherent in each particular study are considered to be a source of collective strength: dimensions that emerge consistently despite such variations are plainly robust.

2.3.2.6. Choice of model

Several studies find dimensions that directly or indirectly relate to Hofstede's dimensions of national culture. To date, Hofstede's model includes country scores for most countries in the world. His, and the other studies reviewed, were done for the purpose of international management and include work-related values. Literature shows that most applications of cultural dimensions to marketing and advertising have been done with the Hofstede dimensions. One reason why the Hofstede dimensions are so practical is the limitation to five, and the fact that they do overlap relatively little with each other. Of the seven dimensions of Trompenaars, for example, five are more or less related to individualism-collectivism, which doesn't add to clarity.

Several authors have noted that value studies at the cultural level like conducted by Hofstede and Schwartz are promising measurement instruments for cross-cultural research not only in social psychology, but also in consumer behavior research. Hofstede's work has become a paradigm for other research. His dimensions have become key variables or explanatory features in a wide variety of research (Chapman 1997; Grunert and Juhl 1995; Milner et al. 1993). Milner and Collins (2000:77) state that "all of the researchers [applying Hofstede's dimensions to marketing] have found Hofstede's taxonomy useful". The authors conclude that (1) advertising strategists can utilize Hofstede's framework as a rough guide to provide direction in selecting country-specific advertising appeals; and (2) global advertising standardization seems strategically unwise as not all cultures share the same values. Simon Anholt, one of the leading consultants on global advertising bases his culture mapping on the Hofstede dimensions. He states:

"For advertising agencies and their clients, culture mapping [i.e. working with the Hofstede dimensions] really comes into its own: it's absolutely *made* for mass marketing, an area where individual personality is of very secondary importance, and what you really want is reliable, true, but *gross generalizations*. You need to know what *most people* in a country are like, and how most of them will behave in response to certain stimuli (Anholt 2000:66)

2.3.3. Values

A "value" is defined by Rokeach (1973:5) as "an enduring belief that one mode of conduct or end-state of existence is preferable to an opposing mode of conduct or end-state of existence". Values have cognitive, affective and behavioral components. A value is a preference for one mode of behavior over another mode of behavior. Values are taught at early age, in an absolute manner. Values include opposites and there are different types of values in a value system that may have a different order of importance. Values can serve as standards that guide our choices, beliefs, attitudes and actions. Rokeach assumed that (1) the total number of values a person possesses is relatively small, that (2) all men everywhere possess the same values to different degrees and that (3) the antecedents of human values can be traced to culture, society and its institutions. Clawson and Vinson (1978:401) belong to the first scholars to apply the value concept to marketing. They state that also consumer values are derived from, and modified through personal, social, and cultural learning. Values are shared by people within a culture, and can be used to characterize the

psychological similarities within and the differences across cultures. Studying cross-cultural similarities and differences in values is also helpful in analysing cross-cultural differences in concrete behaviors (Grunert and Juhl 1995).

The Rokeach Value Survey was one of the first to be used in marketing and has served as an example for many other value studies. The Rokeach lists of 18 terminal and 18 instrumental values have been used worldwide for cross-cultural value research, although several researchers found evidence that value profiles from any two groups of nations are not equal. Munson and McIntyre (1978:163) compared the Rokeach values across cultures and found empirical evidence that self value systems differ markedly across cultures. A simpler approach to values was developed by Kahle and Goff Timmer (1983) called List Of Values (LOV). LOV consists of nine values: sense of belonging, excitement, fun and enjoyment in life, warm relationship with others, self-fulfillment, being well-respected, a sense of accomplishment, security, self-respect.

One of the oldest value studies in marketing, based on the Rokeach value system is VALS (Value and Lifestyle Research), developed by SRI International, Menlo Park, California (Holman 1984). It uses a questionnaire asking motivations and demographic characteristics that are seen as predictors of consumer preferences. The VALS segmentation system was developed in the United States and the values included are typical for the United States. Nevertheless, it is indiscriminately applied in other cultures by international advertising agencies. The criticism is that its conceptualization implies that it has potential for international value research. However, researchers have been limited by lack of access to the VALS weighting algorithm, which is proprietary. Among the problems of cross-cultural application of value research like VALS are the difficulty of conveying the meaning of value questions and the dependence on demographics that vary across nations. In addition, some of the VALS statements seem particularly tied to the U.S. culture. An example of such a statement is "Just as the Bible says, the world literally was created in six days". This may simply confuse a Buddhist in Japan (Beatty et al. 1988:379).

Priorities of values vary across cultures. Grunert, Grunert and Beatty (1989) compared values for two age groups in the USA, Germany and Denmark, based on Kahle's LOV instrument and found that ratings varied. Kamakura and Mazzon (1991) found substantial differences between the USA and Brazil for the Rokeach terminal values. Comparing rankings of 1971 and 1981, they also found that the ranking of values in the USA had been considerably stable over time.

De Mooij (1998a) described the concept of the value paradox, as a result of opposing elements in values. This is related to the 'desirable' and the 'desired' (Hofstede 1980), the distinction between what people think ought to be desired and what people actually desire or how people think the world ought to be versus what people want for themselves. The desirable refers to the general norms of a society and is worded in terms of right or wrong, in absolute terms. The desired is what we want, what we consider important for ourselves. It is what the majority in a country actually do. Grunert and Muller (1996) also describe this paradoxical aspect of values. In the definition of values, one feature is a 'desirable end state of existence'. Desirable can signify something that actually guides one's day-to-day life, as well as something one wishes to have, but cannot attain given present circumstances. Consequently we have to distinguish 'real' life values and 'ideal' life values. Cheng and Schweitzer (1996) pointed out a paradoxical element in Chinese culture as compared with

American culture. Two values 'modernity' and 'tradition' are both used significantly more often in Chinese than in US advertising. From the Western value perspective, it seems the two are opposing values, but in China they are not.

Language is one of the manifestations of culture as values are reflected in language (De Mooij 1998a). The structure of language has a significant influence on perception and categorization (Usunier 1993). Differences between languages can go far beyond mere translation problems. Some Western concepts may not even be translatable into other languages such as Arabic (Whitelock and Chung 1989). In different cultures, people have different 'schemata'. These schemata are often linked with both a typical language concept and a specific product category (Müller 1998). This explains why copy for meaningful advertising concepts of one culture cannot easily be translated into other languages. "Translating advertising copy is like painting the tip of an iceberg and hoping the whole thing will turn red. What makes copy work is not the words themselves, but subtle combinations of those words, and most of all the echoes and repercussions of those words within the mind of the reader. These are precisely the subtleties which translation fails to convey. Advertising is not made of words, but made of culture" (Anholt 2000:5). Some words reflect the specific values of a culture. They cannot easily be translated into words of other cultures, or they have been borrowed from another culture from the start. The English language is the only language in the world, spelling "I" with a capital letter. This phenomenon may reflect the fact that the roots of individualism are in England (Macfarlane 1978). One language represents only one cultural framework. Speakers of different languages not only say things differently, they experience things differently and the fact that there are rarely direct translations (especially for abstract words) is a reflection of this (García 1998).

How the structure of language is a reflection of culture was demonstrated by Kashima and Kashima (1998), who studied the relationship between pronoun drop and - among others - dimensions of culture by Hofstede and Schwartz. In some languages - including English - the use of subject pronouns is obligatory: "I" or "you" must be mentioned. By contrast, other languages do not require the utterance of subject pronouns and these words can be dropped by the speaker's choice. In some Indo-European languages (e.g. Spanish), personal pronouns are not obligatory, partly because the referents can be recovered from the verb inflections. This phenomenon is called pronoun drop. Explicit use of "I" signals highlights the person. Its absence reduces the prominence of the speaker's person. Pronoun drop languages may be associated with a contextualization of the person more than languages that do not allow pronoun drops. This was found to be related to Hofstede's individualism/collectivism dimension.

The value concept, when applied to marketing and advertising, is used in two ways. It refers to people and to objects. People have values and objects have values. A brand will be a strong brand if people's values match the values of the brand (De Mooij 1998a). Advertising's primary function is to transmit value to a product or brand. Advertising turns the product into the 'brand'. Virtually all kinds of behavior and attitudes, from simple purchasing acts to political and religious ideology, are derived from values (Pollay 1984). The debate on global marketing has long been about the management, manufacture and marketing of products around the world. "But the important link between consumers and marketing is the link of values" (Clark 2000:74).

In the application of the value concept and value studies to marketing and advertising, often ethnocentrism can be recognized. Scholars tend to apply value studies developed in their own culture to other cultures where they do not apply. An example is the lists of values, applicable to advertising, as defined by Pollay (1984, 1990), including only American values. This is a logical finding as they result from analysis of American advertising. Yet, Pollay's list of values has been used in cross-cultural advertising studies. Applying sets of values derived from one culture in cross-cultural contexts without regard to the substance of the cultures in question, is viewed as ethnoconsumerist research (Venkatesh 1995). One cannot assume that the same set of values will influence two different groups of consumers' responses for the same marketing stimuli. This is particularly important for research studies across different countries. We cannot assume that causes for behavior in one country are the same as in another (Lowe and Corkindale 1998).

2.3.3.1. Values are stable

"Values are among the first things children learn, not consciously, but implicitly. Development psychologists believe that by the age of 10, most children have their basic value system firmly in place" (Hofstede 1991:8). How enduring values are, is demonstrated by Yankelovich (1994) who finds that, despite increased affluence and other changes, many of America's most important traditional values have remained firm and constant. Despite the transformations in America's lifestyles a number of core values, shared by virtually all Americans, have endured. Several scholars have found evidence of the stability of values, but in marketing and advertising practice, where change is the name of the game, it is difficult to understand that values are stable. Yet, the stability of values may cause convergence to be very slow, if it happens at all.

Inglehart (1990) offered relevant evidence on levels of satisfaction with one's life as a whole that appear to be stable over time. Data of Euro-Barometer surveys between 1973 and 1998 show that the levels of satisfaction as expressed in the surveys have remained more or less the same. There are remarkable cross-cultural differences: consistently, the Danes, the Dutch and the British publics show a higher level of satisfaction than the Italians, French and the Germans. These differences have remained stable over time.

Several scholars of advertising find values - derived from content analysis of advertising - to be stable over time. Commercial communication has been relatively consistent in its cultural character. This statement was found to be valid both in the Western world and in Asia. Despite the rapid changes in Hong Kong society, people continue to hold many traditional attitudes that influence what they buy and how they respond to advertising messages (Kamakura and Mazzon 1991; Pollay 1984, 1990; Pollay and Gallagher 1990; Tai and Tam 1996). Pollay (1984, 1990) defined a set of 25 values reflected in advertising in the US. He found a strong consistency in values in advertising between 1970 and 1980. Similar values were found in print advertising and in television advertising. Wiles et al. (1996) content analysed Swedish and US magazine advertising and found a number of values that were similar between the US and Sweden. They also compared the US values found in this study with a similar study by Andrén et al. Of 20 years earlier and found the same values.

Despite evidence of stability of cultural values several scholars assume that modernization and postmodernization lead to value change. Value change is generally

thought to be caused by variables at the macro level: Wealth, industrialization and urbanization and the more abstract notion of modernity or modernization. But there is no agreement about the effects of modernization on (cultural) values. There is not one single effect of modernization. Most of the countries considered by general agreement to be modern are also relatively affluent. One simple way of expressing is by their high GNP/capita (Inkeles 1998:75). Indeed, the elements of modernization, such as wealth, urbanization, advanced transport and communication systems and education are interrelated. With increased wealth, some values may change at long term, others not. Wealth leads to individualism and poverty leads to collectivism. With better education the level of power distance goes down. Yet, relative differences remain and some differences may even become larger. People tend to think that inequality between males and females is decreasing along with wealth and better education. Inkeles (1998:173) however, mentions a striking example of persistent traditional role patterns in the United States, where unmarried men, even those with children, spend about the same amount of time doing household chores before marriage as after. The amount is nominal, less than half an hour per day. Cafferata et al. (1997:258) find evidence that in the United States, between 1975 and 1993 disparity between the sexes with respect to certain duties, obligations and beliefs in roles of fathers, had increased.

At face value people tend to become more individualist, but individuation follows different patterns. Modernization, including industrialization and urbanization is assumed to turn collectivist societies into individualist societies. As yet, there is no evidence to support this assumption. Although urbanization tends to break up the joint household of the extended family in favor of more nuclear households, this does not imply decreasing extended family values (Roland 1988). Also Inkeles (1998:148) did not find evidence of convergence of family and kin patterns. Even within nominally homogeneous culture areas, nations have typically manifested quite diverse preferences about the right age for marriage (Inkeles 1998:153).

Inglehart's (1990, 1996, 1997) seminal study of value change is based on the assumption of change from modern to postmodern values or materialism to postmaterialism¹. Postmodernism is divided in three broad schools: (1) Postmodernism is a rejection of modernity; rationality, authority, technology and science are equated with Westernization. (2) Postmodernism is the revalorization of tradition. (3) Postmodernism is the rise of new values and lifestyles with greater tolerance of ethnic, cultural and sexual diversity and individual choice concerning the kind of life one wants to lead.

Inglehart's theory predicts both short- and long-term changes in values. He advances two hypotheses that account for variation in Materialist/Postmaterialist values: (1) a scarcity hypothesis stating that an individual's priorities reflect one's socioeconomic environment and (2) a socialization hypothesis that postulates that to a large extent, one's basic values reflect the conditions that prevailed during one's preadult years. The scarcity hypothesis implies short-term changes or period effects: Periods of prosperity lead to increased postmaterialism and periods of scarcity lead to materialism. The socialization hypothesis implies that long-term cohort effects exist. Inglehart's 'materialist' or 'modern' values are connected with respect for authorities and structured societies. His hypothesis is that along

¹ Inglehart uses a narrow aspect of postmodernism. In this study we will not pursue the concept of postmodernism in a broader sense.

with increased wealth, respect for authority decreases. This is basically the same as what Hofstede says, that along with wealth and higher education, scores on the power distance index decline. Inglehart also finds changing phenomena that can be related to uncertainty avoidance. Declining trust in government (in the USA) seems to be part of a broader erosion of respect for authority. Rapid change leads to severe insecurity, giving rise to an authoritarian reflex that may bring fundamentalists or xenophobic reactions. Insecurity leads to a need for strong authority figures to protect one from threatening forces; it also breeds an intolerance of cultural change and different ethnic groups. Conversely, conditions of prosperity and security are conducive to greater emphasis on individual autonomy and diminishing deference to authority (Inglehart 1997:603-604). According to Inglehart, postmaterialism emerges with economic security. Further income does not lead to higher levels of subjective well being. People take their prosperity for granted and transfer their focus to other parts of life, such as politics and the quality of physical and social environment (Inglehart 1997:297).

2.3.3.2. Value domains

Vinson et al. (1977:45) distinguish three levels of values related to consumption: global values (centrally held and enduring beliefs), domain-specific values, and evaluative beliefs (beliefs about the desirable attributes of product classes as well as specific brands). Domain specific values are values that are related to specific domains of activity. The underlying belief is that people acquire values through experiences in specific situations or domains of activity and that behavior cannot be understood or efficiently predicted except in the context of a specific environment. The concept of “value domains” used in this study is more like the concept of “value worlds” as phrased by Clawson (1994:18), reflecting different major aspects of one’s personal life. Value domains in our study are values or clusters of values that apply to specific domains of consumer behavior and that are related to specific product categories. An example is “purity”, related to food products. Delineating consumer values in relevant value domains is part of our study. In literature, in descriptions of results of comparative studies, we found consumer values belonging to specific domains. Description of the various value domains relevant for consumption of various product categories is likely to result in a useful instrument for developing effective international marketing strategies. In chapter five a number of these domains are covered. Here we summarize a few domains found in literature.

“Technology” is the degree of importance adhering to technology and technological control in products. With respect to automobiles, the importance of the attribute ‘technically advanced’, shows considerable differences among countries. For the step ‘not advanced’ to ‘technically advanced’ the increase in utility in Germany is double that in Sweden (Colvin et al. 1980).

“Authority” stands for the degree to which authority values are important. Across cultures there are variations in expectations of authority and the ability of people to rule themselves as opposed to the expectation that authorities or governments rule or organize life for them (Triandis 1995). The importance of authority is a value included in Hofstede’s dimensions power distance and uncertainty avoidance.

“Locus of control” (LOC) (Rotter 1965, 1975, 1990; Clark 1990; Hui 1988) is the degree of an individual’s perception of control over his or her life and world. Persons measuring low on LOC (“externals”) view themselves as having little control of outcomes in life. Those measuring high (“internals”) view themselves as being in control of outcomes in life. LOC is essentially a person’s estimate of his or her place in the order of things and perceived capabilities in that order. As such it is reflective both of ‘relation to self’ and ‘relation to authority’ domains (Clark 1990:74). The concept of internal locus of control, which reflects one’s willingness to accept personal responsibility for life’s happiness and sorrow, is an element of individualism (Hui 1988). The degree of locus of control influences decision making and is also described in section 2.4.5.4.

“Risk and innovativeness” are two separate, but often linked values related to the degree to which people are brand loyal, are willing to try new products and/or change brand. This value domain parallels the values included in Hofstede’s dimension uncertainty avoidance. The degree of innovativeness of cultures is expected to influence new product development and the adoption and diffusion of new products and ideas.

“Achievement”: the ‘need for achievement’ (nAch) concept (McClelland 1989) relates to the desire of individuals to set and realize goals for themselves. Individuals with high nAch seek to advance themselves. They try to do so by taking on challenges that stretch their abilities and offer the possibility of a definite sense of accomplishment. Thus, nAch has been shown to be related to entrepreneurship and economic development. Individuals with a low nAch tend to be happy with the status quo and avoid challenging tasks. It parallels Hofstede’s notion of “masculinity” or assertiveness (Clark 1990). The concept is usually described in a Western context. Among Asians, achievement related behavior is an expression of a motive within a socially interdependent context (Ang and Chang 1999:529).

“Hedonism” is the degree to which people want to experience new things, have more pleasure, more fun. It is related to conspicuous consumption. According to Homma (1991), there is a split in consumer attitudes in the direction of materialistic or, alternately, Epicurean hedonism. Materialistic hedonism is all about consuming more and more or ‘conspicuous consumption’. Epicurean hedonism is less conspicuous. It often implies controlling and organizing one’s urge for pleasure.

“Environmentalism” (concern for the environment), and the objects of environmentalism, are assumed to be culture-bound. More than one cultural dimension or value domain may be involved in explaining why different cultures deal with the environment in different ways. Several authors have described the phenomenon. Homma (1991) states that environmentalism is not a uniform trend across Europe. There are fundamental differences between countries. German consumers, for instance, tend to adopt a holistic perspective; i.e. man is seen very much as a part of the ecological system. In Britain, environmentalism is (still) very much about the destruction of the inner cities, the preservation of the fabled English countryside, and the war on waste. In France, environmentalism is mostly about the depletion of the rain forests, or problems stemming from the use of harmful products like aerosols. Grunert and Juhl (1995) find explanations of the influence of different value patterns on differences in environmental concern among Danish teachers, which may be extended to other cultures.

“Health and fitness” (how people perceive health: active (sports) versus passive (healthy food) health. The English concept of ‘Personal Fitness’ is not universal. The idea of having the positive linked to the negative is not present in the closest foreign concepts. ‘En pleine forme’ is the closest French wording and there is no pain here. Instead we have total health. Fitness is health and physical health is only part of that. The Spanish ‘En forma’ is narrower - more to do with how you look than how you achieved it. ‘Genießen’ in German is associated with eating, wine drinking, in France with desserts, what in Germany is perceived as a forbidden enjoyment. ‘Gesundheit’ or health, as a consumer experience in the US is connected with visuals of sports, as an expression of a healthy lifestyle, but in France with a concern for healthy food. German consumers associate the concept of health with doctors, while in France and the US doctors are associated with sickness (Müller 1998).

2.4. ADVERTISING, CULTURE AND THE CONSUMER

Advertising is a reflection of culture in several ways. Generally, modes of communication vary, and these are reflected in advertising. Appeals in advertising reflect needs, wants and drives of people for buying products, and these are part of the social habits of the society they are part of. “Not only are the specific wants of man - such as our want for an automobile, for Birds Eye spinach, or for the movies - culturally determined, but so too are our method of exchange and our attitude toward goods in general” (Turner Norris 1952:63). It is generally accepted that for developing effective advertising knowledge of consumer behavior is needed. Thus, for understanding the workings of international advertising, we have to understand how consumer behavior varies across cultures. Several aspects of consumer behavior are covered in cross-cultural studies. Typical topics studied are: consumer decision making; influence of the family or other reference groups on decision making and choice behavior; brand loyalty; innovativeness and the diffusion of innovations; the concept of self; motivations and needs; and included in communication studies: perception, learning and information processing. This section reviews studies of advertising, media and related consumer behavior.

2.4.1. Advertising and culture

Findings of studies of advertising across cultures tend to point at differences of consumer behavior across cultures as a cause of the differences found in advertising. The early authors pointing at these differences are Americans who, when exporting and advertising American products to other countries, find that peoples’ behavior is not the same everywhere. One of the surprises mentioned is about observed differences in behavior in countries of similar economic development. Consumption patterns were found to be different across countries and it was suggested that general theories such as reference group and consistency theories may need refinement and possible modification when applied to cultures other than the one where they were developed (Green and Langeard 1975; Lorimer and Dunn 1968). Similar observations can be made with respect to attitudes, motives, emotions, and many other aspects of consumer behavior relevant for advertising.

Over time numerous cross-country advertising studies have reported differences with respect to appeals, forms and styles, the use of information in advertising, visual components in print advertising, and slogans in business-to-business advertising.

Differences in forms and styles used were found between the US and UK (Katz and Lee 1992; Spotts et al. 1995; Nevett 1992). Differences between France and the US were found by Biswas et al. (1992), between France and the Netherlands by Wassink (1991). Taylor and Hoy (1995) analysed the style of French advertising. Comparisons between the US and Japan were made by Mueller (1987, 1992), Ramaprasad and Hasegawa (1992), Miracle et al. (1992), Lin (1993), and Sengupta (1995). Taylor et al. (1997) compared the role of information in advertising in the US and Korea. Zandpour et al. (1992) compared advertising styles in France, Taiwan, and the US. Cutler and Javalgi (1992) analysed the visual components of print advertising in the US, UK and France. Cutler, Javalgi and Erralilli (1992) conducted a multi-country content analysis between the US, UK, France, Korea and India, also comparing the visual components of advertising. Maleville (1993) analysed slogans of business-to-business advertisements from the UK, France, and the Netherlands. Zandpour et al. (1994, 1996) used the Hofstede dimensions along with a host of other variables for comparing advertising in the US, Mexico, France, the US, Spain, Germany, Korea and Taiwan. All studies found strong differences in advertising styles between countries. Executional styles, successful in the US, such as comparative advertising or endorsement, are typical for the US and not necessarily as successful in other cultures. National characteristics influence specific features of advertisements such as copy, lay-out, and illustrations, in various ways (Laskey et al. 1994; Miracle 1966).

How people acquire, organize and utilize information is related to how they have learned to process information. There are significant cross-cultural differences in pictorial perception. Yet, measurement criteria used for cross-cultural comparison tend to be based on the Western way of information processing. A frequently used model to measure differences in advertising content across cultures is by Resnik and Stern (1977, 1991), who developed a list of informational cues to measure the information content of advertising. Most of the information cues are related to the product or its availability. This Resnik & Stern model, developed in a US context, was used by several researchers for cross-cultural content analysis of advertising (Chan 1995; Graham et al. 1993; Lin 1993; Rajaratnam et al. 1995; Zandpour et al. 1992; Zandpour et al. 1994).

Another example of biased analysis is the use of values found in advertising in one culture as a standard for analysing advertising from other cultures, such as the inventory of values in advertising made by Pollay (1984). Yet another example of a US-based criterion for comparing advertising across cultures is the distinction between “emotional” and “informational” advertising. Emotion as a concept is frequently encountered in US advertising theory, because of the distinction between “emotional” versus “informational” advertising. Informational advertising includes important information for the consumer (i.e. the description of features of the product), while emotional advertising appeals to feelings and pleasure related to the advertised products (Papavassiliou and Stathakopoulos 1997).

Related to differences in advertising styles across cultures are differences with respect to general attitudes towards advertising. There are large variations in opinions, perceptions and acceptance of advertising between countries (Cheng 1994; Durvasula et al. 1993; Heyder et al 1992; Tian Shuqian 1992; Wei 1997; Zhao and Shen 1995).

Most comparative studies are descriptive. Rarely do they try to give explanations for the differences. Clark (1990) noted the lack of an integrating theory in his review of cross-cultural studies. He found the absence of an integrating theory in all cross-cultural research

troubling. "Consumer behavior textbooks offer elaborate diagrams filled with boxes and arrows. Culture is always a tiny box on the periphery of the diagram. Such 'textbook' diagrams give no systematic account of how culture intersects with the many factors that impinge upon consumer behavior" (McCracken 1989).

Understanding the variations of what motivates people across cultures is important for positioning brands in different markets. Cultural understanding can help explain differences in brand loyalty, brand preference and brand image. Differences in sensitivity to certain product attributes and advertising appeals can be explained by culturally defined motives (De Mooij 1998a). What motivates people to buy a product or brand or to prefer it to other alternatives can be the product attributes (e.g. ingredients of a product, color, design), the benefits (what it does to the consumer, e.g. for toothpaste 'prevent cavities' or 'white teeth') or values (e.g. security, status, self-confidence). The important motives vary by product category and by culture. Motives are reflected in appeals in advertising. Albers (1994, 1996) conducted a content analysis of advertisements in business publications from 11 countries and found that every country had its own profile of appeals, significantly different from all others.

What the consumer buys and how she buys, is not only driven by current aspirations and life goals, but is also molded by past traditions and previous experiences, and constrained by current economic, technological, and social opportunities. People vary with respect to the extent of integration with others and the social environment, purchase involvement, risk perception and many other aspects influencing the buying process (Douglas and Urban 1977; Hui 1988; Kanwar 1993; Sood 1993; Steenkamp et al. 1999).

2.4.2. The search for a theoretical framework

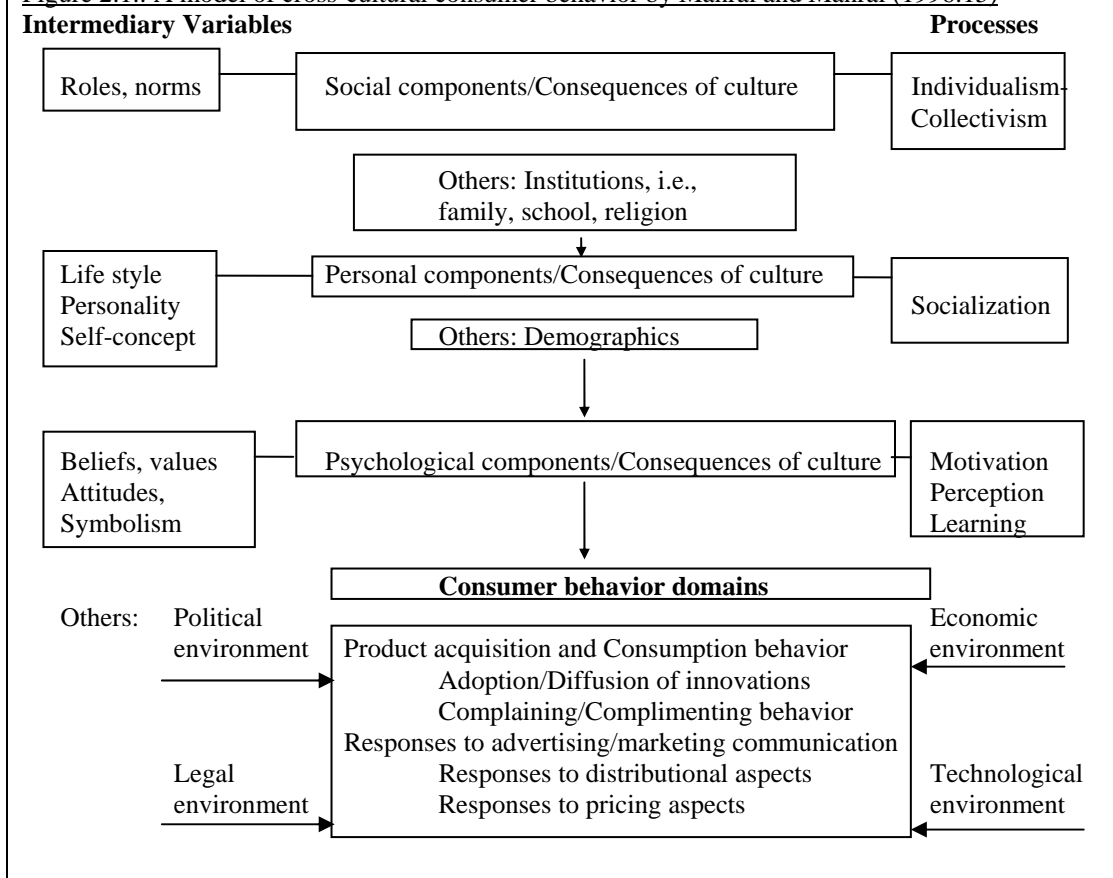
Several scholars mention a lack of cross-cultural consumer research. The need to examine the cross-national applicability of constructs and models developed in the United States to other countries is increasingly mentioned, and so is the need for a theoretical framework (Aaker and Maheswaran 1997; Douglas and Craig 1997; Durvasula et al. 1993; Usunier 1997; Wierenga et al. 1996).

For understanding the influence of culture on consumer behavior a clear theoretical framework is particularly important as cross-cultural research needs an interdisciplinary approach: Both psychology, sociology and anthropology are involved (Venkatesh 1995). In the classic models of consumer behavior, such as by Kotler (1994) elements of consumer behavior are classified according to these academic disciplines. Kotler (1994:174) distinguishes four factors influencing consumer behavior: (1) cultural factors (culture, subculture and social class); (2) social factors (reference group, family and roles); (3) personal factors (age and life-cycle, occupation, economic circumstances, lifestyle, personality and self-concept); (4) psychological factors (motivation, perception, learning, beliefs and attitudes). Culture cuts across all factors. As the influence of culture is felt throughout the disciplines a model is needed in which culture is better integrated. Domains of consumer behavior for which a need for such integrated research are mentioned are the decision making process in a family context, consumption patterns, consumer information processing, perceived risk, country-of origin effect, national imaging and national stereotyping (Clark 1990; Lysonski and Durvasula 1996).

A useful approach to a model including several aspects of consumer behavior is by Sheth et al. (1991), who identified a number of consumption values that are related to concepts of consumer behavior. These are functional value, social value, emotional value, epistemic value and conditional value. Functional values relate to the satisfaction derived from utilitarian and physical attributes of an alternative. Social value relates to perceived utility of an alternative as a result of its association with one or more social groups. Concepts connected with this value are social class, reference group, opinion leadership, diffusion of innovations and symbolic value. People see products as extensions of themselves. Emotional value relates to the product's ability to arise specific emotions. Epistemic value is related to novelty seeking, curiosity arousal, seeking knowledge and the willingness to innovate. Conditional value relates to the capacity to provide temporary functional or social value in the context of specific circumstances. Each of the values described in this model is defined by culture, but the authors did not specify the relationship with culture.

The most useful approach is by Manrai and Manrai (1996:13) who developed an integrated approach to understanding the relationship between culture and consumer behavior. The authors point out that in the definitions, culture is a complex concept. Many items defined as consequences of culture are also included in the definition of culture either as artifacts (e.g. food, dress) or as abstract elements (values and norms). These must be separated, so that consumer behavior consequences of culture can be specified beyond other types of behavior that are implicitly included in the definition of culture itself. To solve the problem, the authors distinguish between 'intermediary' variables (e.g. attitudes) and 'processes' (e.g. perception, motivation and learning), both of which explain the effect of culture on consumer behavior. Thus, cross-cultural studies can be classified into those dealing with processes (learning, perception, perceptual categorization, perceptual influence, information processing strategies) and intermediary variables (values and self-concepts). The model (figure 2.1) positions product acquisition and consumption as one consumer behavior domain, while other consumption related behaviors, such as innovation, are included in other domains. Social, personal and psychological components such as norms, lifestyles, personality and attitudes are seen as intermediary variables, but all are consequences of culture. Dimensions of culture, such as individualism/collectivism are viewed as processes, as are learning, socialization, motivation and perception. In the model, income is viewed as only an environmental factor, while in many studies it is viewed as the most important influence on consumer behavior.

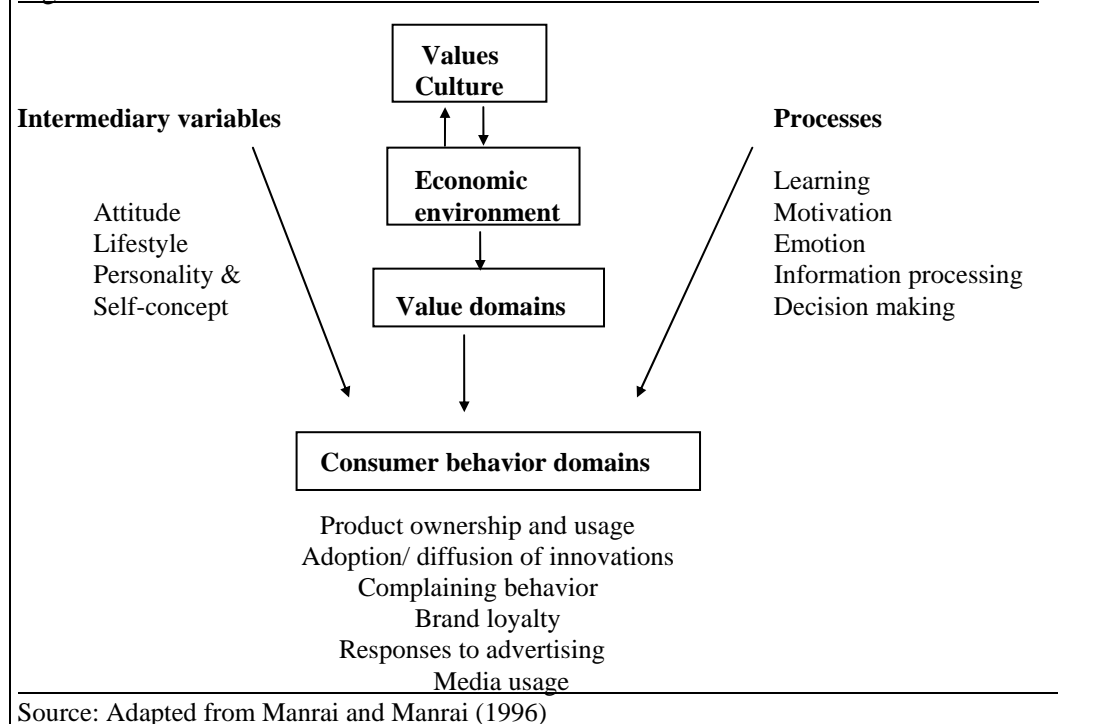
Figure 2.1.: A model of cross-cultural consumer behavior by Manrai and Manrai (1996:15)



In order to structure our review of cross-cultural consumer behavior studies and to categorize the various aspects of consumer behavior, we adapted the Manrai and Manrai model (figure 2.2). There are two basic differences. (1) We place values in the culture box. Culture consists of values, so they cannot be viewed as separate intermediary variables. (2) The economic environment is placed between culture and value domains because income interacts with values and culture. In this we follow Sürdem (1993) who defines “economic rationality as a “value system” appropriate for a certain social system”. The economic environment also has a social component, it drives education. The economic environment generally is a measurement at the aggregate level, or GNP/capita. This is influenced by culture, but in turn it also influences culture, so it is placed in a separate box between culture and value domains.

The value domains are clusters of values, related to consumer behavior domains. Cross-cultural differences with respect to product acquisition, consumption behavior, adoption and diffusion of innovations, responses to advertising, and media usage, all fall in the category consumer behavior domains. Motivation, learning, information processing, emotions and decision making are treated as processes, while attitudes, the self-concept and lifestyle are intermediary variables. Figure 2.2. shows how the structure accommodates the various topics of consumer behavior.

Figure 2.2. A framework of cross-cultural consumer behavior



The model, adapted from Manrai and Manrai (1996:15), structures the variables and processes involved in cross-cultural marketing and advertising. The intermediary variables and processes are studied for understanding both consumer behavior and how advertising works. Differences between countries with respect to the influence of the intermediary variables and processes can be explained by understanding the influence of culture and the economic environment. Altogether, these can be grouped according to various value domains and consumer behavior domains.

Values and culture were described in section 2.3. The economic environment is the next element of the model to review because the approach to understanding consumer behavior often is from the economic point of view.

2.4.3. The concept of the rational consumer

Economists generally view the consumer as a rational human being, or ‘homo economicus’ whose decisions are based on the principle of maximizing utility and profit in an environment of perfect knowledge. Economic theory on both the demand and the supply side has proceeded upon the assumption that man is a kind of psychological calculating machine. He/she is supposed to follow rational principles, equating marginal cost with price, both in a selling and in a buying position (Süerdem 1993). Scholars from various disciplines have objected to the overstated influence of income on consumption. “Differences, which, toward the end of the fifties, seemed to social scientists to be characteristics of countries - such as variations in the value of GNP and in living standards - are viewed over time as quite unreliable indicators” (Scheuch 1996).

Increasingly scholars find that there are many consumption differences across nations that cannot be explained by income differences because the consumer is not a rational human being and does not make purchase decisions that are based on maximizing utility. Homo economicus is not a natural entity, but a social construct of the Western world. The assumption of rationality has often been regarded as unrealistic. The concept of the rational consumer places the consumer outside of a cultural context (Antonides 1998; McCracken 1989; S  rderm 1993). Even in the poorer countries, income is not a criterion for buying luxury goods. This is due to the so-called demonstration effect, a phenomenon in which poorer consumers of developing economies buy symbolic products (with little functional value) to identify with consumption societies to which they have been exposed (Alden et al. 1999; Roth 1995).

2.4.4. The intermediary variables

The intermediary variables of consumer behavior summarized in this literature review include attitudes, lifestyle, personality and the self-concept. All are influenced by culture.

2.4.4.1. Attitudes

A much-used concept in consumer behavior theory is attitude. “An attitude is a lasting, general evaluation of people (including oneself), objects, advertisements, or issues” (Solomon 1994:205). In advertising, the effects typically measured are attitude toward the ad and attitude toward the brand.

People's attitudes are guided by their values. Behavior drives attitudes and attitudes drive behavior. We have developed our attitudes as a result of prior experience and many attitudes can be traced back to our childhood. As a result, attitudes have a cultural component (De Mooij 1998a). “Attitudes lead people to behave in a fairly consistent way toward similar objects” (Kotler 1994:188). This aspect of attitude being consistent is not valid for all cultures. It is a characteristic of individualist cultures. In collectivist cultures attitudes may vary along with the context in which they operate. Examples of specific attitudes that are culture-bound found in literature are attitudes toward materialism, information technology and national pride. From our own research we find that also attitudes toward advertising are culture-bound (De Mooij 1998). Other examples of attitudes that vary across cultures are confidence in institutions, materialism, attitudes to technology and national pride.

The analysis of differences in attitudes helps explain differences in consumer behavior. Inglehart et al. (1998) published data of the World Values Survey on confidence of the public in institutions, among others, confidence in the press. This finding can be used to explain differences in press readership (De Mooij 2000:90).

Materialism, by some scholars is viewed as an attitude to consumption, an enduring belief in the desirability of acquiring and possessing things, by others as a reflection of affluence. If materialism is an attitude, with increased wealth, consumption is likely to decline and be replaced by higher order needs. This has not happened. The lack of decline in

materialism in affluent nations like the United States and Japan casts doubt on this assumption (Ger and Belk 1996; Inglehart 1990, 1996).

Attitudes toward technology and information vary by culture. Acceptance of computers and related technology is lower among - even young - Germans as compared with Americans. In Germany, consumers have lots of reservations against the computer. In contrast, US consumers see the computer as mainly a means to success and prestige (Müller 1998; Mundorf et al. 1996).

Countries vary with respect to the importance people attribute to their own national identity, their attitudes toward national pride. National identity is the extent to which a given culture recognizes and identifies with its unique characteristics. "National pride designates the positive affective bond to specific national achievements and symbols" (Müller-Peters 1998:702). On an overall national identity scale, the US and Mexico rank highest, while Sweden ranks lowest. Consumers are sensitive to the country of origin of products and brands. Country-of-origin of products or brands or foreign sounding brand names influence consumer perceptions (Bamossy and Papadopoulos 1987; Diamantopoulos et al. 1995; Head 1987; Keillor and Hult 1999; Leclerc et al. 1994; Morello and Boerema 1989; Schooler 1965; Usunier 1994). Within Europe, national pride has different dimensions that influence the degree of fear of loss of national identity resulting from the EU and Euro. If expressed in cultural and historical achievement (e.g. Portugal and Italy), there is less fear to lose identity. If expressed in economic success (e.g. Denmark, Germany and the Netherlands) there is more fear (Pepermans and Verleye 1998).

2.4.4.2. Lifestyle

"Lifestyle can be described in terms of shared values or tastes as reflected in consumption patterns. Lifestyle marketing recognizes that people sort themselves into groups on the basis of the things they like to do, how they like to spend their leisure time, and how they choose to spend their disposable income" (Solomon 1992:492). Lifestyle studies search for attitudes, interests and opinions (AIOs) that do not relate directly to specific product characteristics. Examples of such AIOs are 'sense of fashion', attitude towards money or opinions on roles of males and females (Vyncke 1992). Grunert et al. (1997:343) state that the term lifestyle defies definitional consensus. They regard lifestyle as a mental construct that explains, but is not identical with, actual behavior. Consumption related lifestyle is defined as "the system of cognitive categories, scripts, and their associations, which relate a set of products to a set of values". This definition of lifestyle makes it distinct from values. Lifestyles also transcend individual brands or products, but can be specific to a product class. Thus, it makes sense to talk about a food-related lifestyle, or a housing-related lifestyle.

An early example of a cross-cultural lifestyle study is by Douglas and Urban (1977), who compared lifestyles of women in the United States, the United Kingdom and France (in 1975, 1976 and 1977). They found that the basic pattern of lifestyle centers on women's acceptance or rejection of their traditional home-making job.

In the professional world lifestyle research originated from psychographic research, as a response to the decreased usefulness of economic variables to explain differences in

behavior (Vyncke 1992). One of the oldest examples of lifestyle research is the VALS segmentation system (see section 2.3.3). It uses a questionnaire asking motivations and demographic characteristics that are seen as strong predictors of a variety of consumer preferences in products, services, and media. The VALS segmentation system sorts respondents into an eight-part typology. The types are Actualizers, Fulfillers, Achievers, Experiencers, Believers, Strivers, Makers and Strugglers. VALS is used worldwide, although the values included in this study are typical for the United States.

A number of lifestyle studies are conducted for use in international marketing. One of the objectives of international lifestyle studies is to find similar cross-border segments, an often-used argument for standardization of marketing and advertising. Certain lifestyle groups are assumed to be so similar between countries, that their behavior is more similar to the same group across borders than to other groups within borders. Examples of pan-European lifestyle studies are CCA Eurostyles, describing sixteen European lifestyles and Everyday-life-research, describing eight so-called social milieus in a number of countries in Europe. Both studies try to find multinational target groups with similar values, attitudes and socio-demographic characteristics (De Mooij 1994). Academic marketing scholars have criticized the lifestyle research instruments developed and used by most of the larger market research firms on several grounds. (1) There is no agreement on what lifestyle actually means. (2) The methods used are purely inductive and not guided by theory. Lifestyle types come about based on dimensions derived by exploratory data analysis techniques like factor analysis or correspondence analysis. (3) The derivation of the underlying dimensions is unclear and unsatisfactory. Because commercially marketed instruments, like VALS and CCA, are proprietary, the information necessary to evaluate statistical soundness of the derived dimensional solutions is often missing. (4) The explanatory value of lifestyle types or dimensions with regard to consumer choice behavior is low and not well documented. If attempts were made to explain differences in purchase behavior by lifestyle differences, the amount of variance explained is modest, sometimes even below the variance explained by demographic variables alone. (5) The cross-cultural validity of the international lifestyle instruments remains to be demonstrated (Grunert et al. 1997:337-338).

Pan-European lifestyle studies aim at identifying similar lifestyle segments across borders as the general assumption is that national and cultural influences on consumption patterns are less significant when compared with influences exerted by modern lifestyle patterns. No one has ever produced an empirical base to support the argument. In contrast, in a comparative study in France, Brazil, Japan, and the United States, Eshgi and Sheth (1985) demonstrated that more than lifestyle, national and cultural influences determine consumption patterns of stereo equipment, soft drinks, fruit juices, alcoholic beverages, automobiles and deodorants. Studies among consumers in different countries in Asia also demonstrate the continuing impact of culture on lifestyle (Tai and Tam 1996; Wei 1997).

2.4.4.3. The concept of self and personality

According to Kotler (1994:183-184), each person has a distinct personality that will influence his or her buying behavior. "By personality we mean the person's distinguishing psychological characteristics that lead to relatively consistent and enduring responses to his or her environment. Personality is usually described in terms of such traits as self-confidence, dominance, autonomy, deference, sociability, defensiveness and adaptability."

This definition includes three culturally determined elements. (1) Implicit in the concept of personality is the individualist notion that people should distinguish themselves from others as opposed to conformance to the group in collectivist cultures. (2) As with attitudes, consistency is part of the concept. (3) Personality is described in terms of values that are culture-bound.

The concept of self is related to the personality concept. A central aspect of Western marketing is the focus on product attributes that are to distinguish the user's self from others. The self is said to have an "I" component (the personal, private, individual "I") and a "ME" component, (the socially acceptable "ME"), with internalized, learned and accepted norms and values. People will buy products that are compatible with their self-concept; or rather that enhance their "ideal-self" image. Often mentioned drives related to the ideal-self are self-esteem, self-actualization and the need for achievement. The self-concept also is the image we carry in our mind of the type of person we are and whom we desire to be (De Mooij 1998a).

The self-concept as used in consumer psychology is based on the Western-centric psychoanalytic theory of the self and personality, including focus on individual autonomy. A youth has to develop an identity that enables him/her to function independently in a variety of social groups, apart from the family. In collectivist cultures, youth development is based on encouragement of dependency needs in complex familial hierarchical relationships and the group ideal is being like others as opposed to being different. In collectivist cultures, the self is interdependent. Identity among collectivists is defined by relationships and group memberships, while individualists base identity on what they own and their experiences (Roland 1988; Schmitt and Pan 1994; Triandis, 1995; Watkins and Liu 1996).

2.4.5. Processes

In the model by Manrai and Manrai (1996) cultural influences are specified in terms of both intermediary variables and processes and their ultimate effects on specific consumer behavior issues. Learning, motivation, perception, perceptual categorization, perceptual influence and information processing are classified as processes. They are related to each other. "When people act, they learn. Learning describes changes in an individual's behavior arising from experience. Most human behavior is learned. Learning theorists say that a person's learning is produced through the interplay of drives, stimuli, cues, responses, and reinforcement. ... Drives are defined as strong internal stimuli impelling action. Drives become motives when they are directed toward a particular drive-directed stimulus object (products or services)" (Kotler 1994:187). "As consumers gain experience in purchasing and consuming products, they learn not only what brands they like and do not like, but also the features they like most in particular brands" (Assael 1998:105).

Learning processes are entrenched in culture. "In some cultures, such as those prevailing in North America, learning emphasizes doing. It is primarily based on individual experience. In other culture, "learning by description" is prevalent and the individual's experiences are based on other people's experiences" (Samli 1995). These different learning conditions lead to differences in the way people communicate with each other, to different communication styles.

Consumption behavior is part of the society in which people live, it is learned behavior. In our literature search, no studies were found that purely focus on differences with respect to learning across cultures, but we found several cross-cultural studies of motivation, emotion, information processing and decision making.

2.4.5.1. Motivation

The study of motivation, the mixture of wants, needs and drives within the individual, is seen as of prime importance to understanding behavior. Motivation research seeks to find the underlying “why” of our behavior; it seeks to identify the attitudes, beliefs, motives, and other pressures that influence our purchase decisions. Motivation theories are particularly based on Freud’s idea of anxiety, which is related to his own culture (De Mooij 1998a:145). Kotler (1994:184) distinguishes between biogenic and psychogenic needs. Biogenic needs arise from physiological states of tension such as hunger and thirst. Psychogenic needs arise from psychological states of tension such as the need for recognition, esteem, or belonging. Understanding the variation of what motivates people is important for explaining product behavior, brand preference and for developing effective advertising.

Maslow (1954) arranged human needs in a hierarchy of importance: physiological needs, safety needs, social needs, esteem needs and self-actualization. Maslow’s ‘hierarchy of needs’ concept is based on the assumption that a person’s behavior is directed at satisfying needs and that some needs will take precedence over others when the individual is faced with choices as to which needs to satisfy. Physiological needs will take precedence over security or safety, the need for group membership or esteem needs. The ultimate need then is self-actualization. This order is generally presented as universal for mankind. Several authors have demonstrated that this order of needs is defined by culture. A universal human pattern may be that physiological needs take precedence over higher order needs. But the needs as such and the ranking of the non-physiological needs vary across cultures. Self-actualization is a highly individualistic, US motive. In collectivist cultures, what will be actualized is not the self but the interest and honor of the in-group, not its individual members. In collectivist cultures, belonging and safety will converge: it is very unsafe to distinguish oneself from the group (Adler 1991; De Mooij 1998a; Hofstede 1991; Inglehart 1990; Rice 1993; Tse et al. 1989).

Miracle (1966) is one of the early American scholars of advertising, who acknowledged differences in consumer motivations cross cultures. Others find substantial and consistent differences between Americans and people from other cultures with respect to perception of importance of product attributes, status products and brands, general purposes of consumer behavior and image enhancement strategies (Green, Cunningham and Cunningham 1975; Schmitt and Pan 1994; Tse et al. 1989; Woods et al. 1985).

Motives can be recognized in the appeals used in advertising. A rough distinction of appeals in advertising is between appeals based on product attributes or on motives. Several scholars have developed lists of consumption motives by analysing advertising. Pollay’s (1984) list of values in advertising is one of the early inventories. Most buying motives vary by culture. Some motives may exist across cultures, but the degree of importance varies. “Even the same product attributes that seem appealing across different foreign markets cannot be generalized because they are likely to differ in their level of importance in those

markets” (Papavassiliou and Stathakopoulos 1997:514) Also brand images depend on motivations that vary across cultures. Social brand images, for example, are particularly important in collectivist cultures (Roth 1995).

2.4.5.2. Emotion

Emotion is generally described as a process that involves interaction between cognition and physiology. It is not a well-defined concept. Emotion as a concept tends to be used to distinguish between ‘emotional’ and ‘rational’ or ‘informational’ advertising and between functional as opposed to emotional benefits, which refers to the use of values or product attributes in advertising. In the United States roughly two schools of thought about advertising strategy are distinguished: the head and the heart. Head and heart stand for rational argumentation versus emotional or image advertising, “which doesn’t barrage the consumer with words, facts or claims” (Moriarty 1991:79). Particularly when using the distinction rational-emotional for comparing advertising across cultures, the concept of emotion becomes confusing, as expressed in the following statement: “Even when Japanese commercials use an informational strategy, such as hyperbole or a unique selling proposition, their executions are emotional in appeal” (Rose 1997:391).

The assumption that emotions are universal has been an important reason for standardizing international advertising. Few authors of marketing and advertising have included the possibility that emotions vary across cultures, although there is increased empirical evidence among psychologists that emotions and in particular display of emotions vary across cultures. Mesquita and Frijda (1992:198) review various elements of emotions across cultures and conclude “that global statements about cross-cultural universality of emotion, or about their cultural determination, are inappropriate”. Several elements of emotion are found to be related to culture, not all. The emotions of collectivists tend to be other-focused (e.g. empathy), of short duration and contextual (they last as long as the collectivists are in a situation). The emotions of individualists are ego-focused (e.g. anger). Collectivists identify sadness more easily than individualists, and individualists are more likely to perceive happiness than collectivists. Americans are more likely than Japanese to seek “fun” situations and Japanese are more likely than Americans to seek situations that produce harmonious interpersonal atmospheres. East Asian collectivists try to display only positive emotions and tend to control negative emotions (Triandis 1995).

International advertising is dominated by emotional appeals such as love and happiness. Because of this, scholars tend to conclude that emotions are universal. Several studies suggest that there are a handful of basic emotions, such as happiness, anger, fear, sadness and love that are the instinctual biological reactions that human beings possess universally and that are recognized by people in cultures around the world. The main problem of such studies is that the concept of emotion cannot be defined objectively and Western cues tend to be used for the measurement of emotions (Aaker and Williams 1998; Appelbaum and Halliburton 1993; Huang 1998). Other scholars argue that emotions are culture-bound and suggest that emotions are not primarily entities or substances in the body. Emotions are recognized as an assortment of socially shared and collectively enacted scripts that are composed of physiological, subjective, and behavioral components but are also embedded in the immediate sociocultural, semiotically constituted environment (Markus et al. 1996).

In particular display of emotions varies. This is important for advertising, as emotions have to be depicted. Display rules are culturally defined. There is for example low intensity in facial expressions of emotions in collectivist cultures of large power distance (Mesquita and Frijda 1992:193). An experiment by Friesen (1972) comparing display of emotions between Americans and Japanese demonstrated that, when watching disgusting films, both Americans and Japanese displayed disgust when filmed without the presence of the scientist while the Japanese no longer indicated disgust, but were found to smile more instead, when the scientist was present.

So, although there is no conclusive evidence of a relation between culture and emotion in advertising research, there is enough evidence in psychology to conclude that emotions are not universal.

2.4.5.3. Information processing

Theories of how advertising works generally include theories on how people process information. Information processing theory is a psychological approach to analyse how people acquire, organize and use information to assist choice behavior. The underlying assumption is that people want to solve problems and choose rationally. Under this assumption, symbolic and aesthetic motives underlying people's choices are not taken into account. In the early communication theories developed by US scholars, the assumption was that all communication is persuasive and that this is universal for all human beings (Schramm and Roberts 1974). Defleur (1974:69) recognized the influence of culture or 'a common system' on how communication works, but also assumed a tendency of convergence. Krech and Crutchfield (1974:248) were more explicit about the influence of culture on perception. "What we perceive, what is selected out for perception is partly a function of our perceiving apparatus as colored and shaped by our culture".

The assumption that choice behavior is rational is increasingly disputed in the Western world and can be even less generalized for consumers of non-Western cultures. Miracle (1987) distinguished between "Western" consumers and Japanese consumers with respect to information processing. Western consumers generally speaking tend to process information about a product or company and use it to make up their minds whether or not, or what to purchase. In contrast, Japanese, for their decision making tend to depend at least in part on members of their in-group or on people who in other ways merit their trust (De Mooij 1998a). Because people process information differently across cultures the role and purpose of marketing communications varies across cultures, in particular between individualist and collectivist cultures. In collectivist cultures, the purpose of advertising is to build relationships and trust between seller and buyer, so positive feelings are included in communication, which also is indirect (Watkins and Liu 1996). This is opposed to persuasive communication in individualist cultures where the direct purpose of advertising is to sell, or change attitudes at short term. Another difference is between the way information is sought. In low-context communication information is in the words, in high-context communication information is in the visuals, the symbols and the associations attached to them.

There are significant cross-cultural differences in pictorial perception. Imagery is an important element of advertising, yet in research undervalued because of the historical focus on verbal communication in the United States. This bias is reflected in the use of the word 'copy theory' instead of 'advertising theory' (Scott 1994). The words copy research and copy testing, used for testing effectiveness of advertising including visuals, demonstrate the bias towards thinking in verbal stimuli. As a result of differences in information processing in different cultures, specific advertising styles have developed. The culture in which individuals are socialized influences the way they communicate and also advertising has developed its own particular systems of meaning. These are by no means universal across borders, but rather are culturally defined and frequently vary from country to country. (Becatelli and Swindells 1998; Gudykunst 1997). Advertising styles vary with respect to the way people are addressed. For example, advertising of low context cultures tends to use the direct address, in contrast to the indirect approach using more symbols and metaphors (Cutler et al. 1997). Although scholars increasingly understand the influence of culture on how communication works, the objective of several studies is to prove the universality of American models (Aaker and Maheswaran 1997; Papavassiliou and Stathakopoulos 1997).

2.4.5.4. Decision-making

In marketing literature it is generally suggested that the decision making process of consumers follows several stages, although not in all cases all consumers pass through all stages. Kotler (1994:193) presents a five-stage model. The stages a consumer can pass through are: problem recognition, information search, evaluation of alternatives, purchase decision, and postpurchase behavior. Such models are based on the (Western) assumption of a rational decision process by an informed consumer. With respect to information seeking, there is evidence that in Japan and more generally in Asia, different information is sought than in the West and it is used in different decision-making processes, one that is more intuitive, less scientifically valid (Usunier 1997).

Several scholars have tried to apply American models to cross-cultural decision making studies. Some conclude that searching for a universal instrument that can describe consumers' decision-making styles among a wide domain of cultures is problematic (Hafstrom et al. 1992; Lysonski and Durvasula 1996; McDonald 1995). On the consumer side national character will be reflected in the consumer decision-making process (Clark 1990). For several aspects of consumer decision making across cultures differences have been identified, for example in the marketing negotiation process and marketing decision-making characteristics (Hempel 1974; Tse et al. 1988). An important difference in decision making is between individualist and collectivist cultures. Whereas an individualist primarily has an exchange relationship with a merchant, a collectivist fosters a personal relationship, allowing the merchant to learn a great deal in order to arrive at the best decision (Triandis 1995).

The fundamental assumption in Western decision making theory is that decisions do not "happen", someone "takes them". This is a Western view. The Japanese are more likely to prefer events to shape whatever actions are required, to stand back from an event rather than attempting to control it by decision making (Stewart 1985). American based decision making theory is related to a "master-of-destiny" philosophy. People are in control of their own destiny and are fully in charge of their own performance. In many cultures with a more

fatalistic approach to life, the idea of controlling individual performance is rather less intelligible, since various uncontrollable higher-order forces are assumed to shape our acts and future (Usunier 1997). Abe et al. (1996) relate differences in the degree of action orientation in decision making to the difference between external-internal locus of control, which in turn is influenced by individualism and uncertainty avoidance. In cultures with the configuration collectivism and strong uncertainty avoidance, people tend to postpone decisions more (“mañana syndrome”) than in cultures of the configuration individualism and weak uncertainty avoidance. This influences decision-making.

“Internal versus external control (see also section 2.3.3.2 on value domains) refers to the degree to which persons expect that a reinforcement or an outcome of their behavior is contingent on their own behavior or personal characteristics versus the degree to which persons expect that the reinforcement or outcome is a function of chance, luck, or fate, is under the control of powerful others, or is simply unpredictable” (Rotter 1990:489). “The construct has implications for personality, cultural differences and decision making” (Rotter and Mulry:598). Internal locus of control is likely to induce taking social action to better one’s life conditions and is related to the need for independence (Rotter 1965:598). Although the construct is developed in psychology with focus on the individual, it may be extended to the level of national culture. Americans are, for example, more likely to be guided by internal locus of control than Japanese. As Rotter stated (1975:65), “long experiences in our school system must have increased the social desirability of internal attitudes”. The implications of the construct are interesting for the study of cultural differences. “If it is true that groups who learn to expect change or fate or powerful others to control the environment tend also to place value on reinforcements which they see as controlled by these outside influences than those which they perceive as a function of their own skill, it would imply that they would be less motivated towards an increase in skill or achievement” (Rotter and Mulry 1965:603). Understanding how locus of control varies across cultures is an important element of cross-cultural understanding of consumer and business decision making as well as consumer behavior for which most models were developed in the United States. “Internal locus of control is part of the fundamental assumptions in many models of consumer behavior. Behavior intention models, for example, assume people have: A linear time orientation, an internal locus of control and the ability to think in probabilistic terms” (Cote and Tansuhaj 1989:105).

Western consumer decision-making theory includes roles of reference groups that influence a person’s behavior. These tend to be distinguished in groups that have a direct (membership groups) or indirect influence (aspirational groups) (Kotler 1994:178). A fundamental difference between individualist and collectivist cultures is between decision making in the individual or in the group, where the group concept differs from the membership groups or aspirational groups of individualist cultures. In collectivist cultures one automatically belongs to the group in which one is born and outside groups have a different sort of influence than in individualist cultures. Asians are strongly influenced by the opinions of others in their reference group and concerned about ‘not losing face’, i.e. maintaining their social prestige and standing in the relevant reference group (Schmitt and Pan 1994). Sinn et al. (1999:90) state that peer group influence on consumer behavior is an area neglected by past cross-cultural studies. “With Hofstede’s framework, it is expected that the degree of impact of peer group influence on consumer behavior would vary among countries with different levels in the individualism-collectivism dimension.”

In Western decision making theory, specific individuals are assumed to influence the decision making process through word-of-mouth communication, generally within a certain product category. These are called opinion leaders (Rogers 1962, 1995). Opinion leaders are strong, informal sources of product information. Opinion leaders get their status because of technical competence, social accessibility and conformance to system norms. They serve as role models and play an important role in the process of diffusion of innovations. The roles of opinion leaders are likely to vary across cultures. People with technical competence or competent people in general, are likely to be favored in strong uncertainty avoidance cultures. Masculine cultures have high regard for the successful. Conformance to group behavior and group norms will be important in collectivist cultures and opinions of elders are more relevant in collectivist than in individualist cultures. In large power distance cultures, particularly the power holders may have an important role as opinion leader (De Mooij 1998a).

Comparison of opinion leaders in the US and France demonstrated that roles are indeed different. US consumers discussed grocery products significantly more than French consumers (Green and Langeard 1975). Rogers' concept of opinion leadership is basically an American concept. The concept as marketers know it today was derived mainly from the diffusion of innovation theory developed by Everett Rogers (1962, 1995) in his investigation of the speed and pattern of the spread of new farming techniques across the United States. Herein lies a trap for non-US practitioners of marketing, for the assumption typically made is that the US-developed theory has universal applicability. This is doubly dangerous in that foreigners may assume that (at least) the basic theoretical constructs of opinion leadership can be applied without adjustment and with impunity in whatever cultural milieu they may wish to operate. In a comparative study in eight countries worldwide, the roles of opinion leaders were tested. Findings were that some characteristics of opinion leaders do appear to vary across cultural borders. Three of eight countries were identified where marketers should select opinion leaders from an older age group. All three countries where the variation was identified were Asian (Marshall et al. 1995).

2.4.6. Consumer behavior domains

Six consumer behavior domains were found to be covered in literature. Cross-cultural differences in product ownership and consumption - an important part of our study - were covered least. Studies of the variation between cultures with respect to innovativeness and diffusion of innovations are numerous. Complaining behavior is a domain of quality management, but we have included it as it is also a form of consumer behavior. Other domains covered in literature are brand loyalty, responses to advertising and media usage.

2.4.6.1. Consumption, ownership and usage across cultures

Much of what people consume, own and how they use it is influenced by cultural values (De Mooij 1999, 2000). The influence of values on product ownership has mainly been studied in a national context. People's values have a direct and an indirect effect on product ownership. When consumers evaluate a product's utilitarian meaning, values influence the evaluation of a product's tangible attributes that in turn affect product choice. When consumers are evaluating a product's symbolic meaning, making an affective

judgment, values may influence product choice directly. When a product symbolizes a social category, it simultaneously symbolizes the human values that define the category. For example, mobile phone means achievement, Pepsi means vitality. This is a direct relationship. Human values may influence product choice indirectly via general product attitudes or via the importance of product attributes, benefits or consequences (Allen and Ng 1999). Because people's values vary by culture, both the direct and indirect effects of values will vary by culture.

Food consumption is assumed to vary with both economic and cultural factors. Food carries cultural meanings. There is great variation in the percent expenditure of food and beverages of total household expenditures, even within Europe. There are also tremendous differences with respect to consumption of specific product categories within the category foods and beverages, also between countries of similar income level. Such differences indeed point to fundamental differences in the patterns of consumption in the different EU countries (Magrabi et al. 1991; Wierenga et al. 1996). Durable products have different functions across countries. An example is the television, which has emerged as perhaps the most symbolic purchase an individual or couple makes in modern China (Brewer and Doran 1997). The sale of "pleasure" products and services like travel and cultural events such as theater, opera, etc. would be expected to be higher in the individualist countries than collectivist countries (Milner et al. 1993).

Leeflang and Van Raaij (1995:378) review consumption trends in Europe. Because a few similar developments are found in different countries, the authors suggest that European consumers behave more similarly, buying more of the same products and the same (pan-European) brands. Another conclusion is that "the same brand names may increasingly be turning up in shopping baskets all across Europe, but national tastes are far from vanishing." Several authors contributed to the description of consumption trends in Europe via country-specific descriptions. Analysis of the separate country articles shows that for each country the description focuses on culture-specific developments and values. In the descriptions of the UK and Ireland, the importance of private housing and home ownership is mentioned. The growing importance of natural and health food and health care is particularly mentioned in the descriptions of Belgium, Germany, Italy, Spain and Greece, all strong uncertainty avoidance cultures. Increasing importance of "fun" products, technology, entertainment and convenience products are mentioned in the descriptions of the Netherlands, Sweden, Germany, and the UK, all of small power distance and individualist. The importance of a "happy family" is mentioned in Spain and Austria; it is a symbol of stability, of importance for strong uncertainty avoidance cultures (Farhangmehr and Veiga 1995; Gijsbrechts et al. 1995; Grunert et al. 1995; Kouremos and Avlonitis 1995; Laaksonen et al. 1998; Lambkin and Bradley 1995; Leeflang and Van Raaij 1993; Mühlbacher et al. 1997; Nilsson and Solgaard 1995; Nueno and Bennett 1997; Saunders and Saker 1994; Varaldo and Marbach 1995; Wikström 1997).

2.4.6.2. Diffusion of innovations

According to Kotler (1994:620), from the marketer's standpoint, the most relevant area of study is the diffusion of new products, particularly those that can be classified as innovations. The adoption of new products is a critical question to marketers because new product success is linked to profitability." Rogers (1962, 1995) identified five categories of

(American) consumers according to the degree of acceptance of new products. These five categories of adopters are often illustrated in a normal distribution curve. They are called Innovators, Early adopters, Early majority, Late majority and Laggards. The innovators represent 2.5 percent of [American] society, they are described as venturesome individuals who are willing to take risks. Early adopters (13.5 percent) are the ones to take up new ideas that are taken up by the innovators who serve as role model. Early majority (34 percent) are risk avoiders but are relatively deliberate in their purchasing behavior. Late majority (34 percent) are skeptical and cautious of new ideas. Laggards (16 percent) are very traditional. Innovators are able to cope with higher levels of uncertainty about an innovation than are other adopter categories. As the first to adopt a new idea in their system, they cannot depend upon the subjective evaluations of the innovation from other members of their system. The measure of innovativeness and the classification of a system's members into adopter categories are based upon the relative time at which an innovation is adopted. The rate of adoption is the relative speed with which an innovation is adopted by members of a social system. When the number of individuals adopting a new idea is plotted on a cumulative frequency basis over time, the resulting distribution is an S-shaped curve (Rogers 1995:22-23).

The percentages of the five categories defined by Rogers are likely to vary by culture, and so is the time span of the adoption process. Innovativeness is expected to be related to weak uncertainty avoidance. Collectivism plays another role. Particularly in Japan, after acceptance, the spreading of new products goes fast. On the one hand change is not appreciated so adoption of new ideas and products takes longer. Yet the need for conformance leads to faster adoption as soon as an opinion leader has taken the lead (De Mooij 1998a). Analysis of adoption rates of Japanese, Chinese, Korean and American consumers (Samli 1995:106) shows that the Japanese (of strong uncertainty avoidance) are cautious until the facts about a novel product are known, while the Chinese are the least cautious (weak uncertainty avoidance).

Diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system (Rogers 1995:5). The channels are the mass media and word-of-mouth communication. A fundamental principle of human communication is that the exchange of ideas occurs most frequently between individuals who are alike, or homophilous. Communication is also most effective between members of similar occupation and education (Rogers 1995:286). Word-of-mouth communication works most effectively within homophilous groups, while mass media communications cross social systems and geographical boundaries (Ganesh and Kumar 1996). As a theory of communications, diffusion theory's special focus is on interpersonal communications within social systems (Gatignon and Robertson 1985:849).

Bass (1969, 1995) calculated the probability of an adoption at a certain time with the help of the coefficients of innovation (p) and imitation (q). The coefficient of innovation p represents the effects of mass media (advertisements) and is also known as the coefficient of external influence. The coefficient of imitation q represents the effect of social interaction between prior adopters and potential adopters within a social system. (Ganesh and Kumar 1996:330). The coefficient of innovation is likely linked with different cultural dimensions than the coefficient of imitation. They may also vary by product category.

According to the adopter categorization by Rogers, the innovators are a very small

segment in the market. Furthermore, they play a rather limited role in diffusing the innovation to other segments. The imitators in contrast, play the major role in diffusion of innovations in the marketplace and are a substantially larger segment. Takada and Jain (1992) believe that for cross-country analysis, the coefficient of imitation will represent cross-country differences more clearly and distinctly than the coefficient of innovation, because the latter represents small parts of populations of any country.

Because innovativeness, interpersonal communication and media usage vary across cultures, the diffusion of new products or services is a culture-specific phenomenon. An innovation diffuses differently depending on the sociocultural environment. Penetration of new products will be slower in some countries than in others. Some countries, for some products will be leaders, while others lag. As a result of global media, a learning effect is expected between leading and lagging countries. "Consumers in a lag country can potentially learn about the benefits of a product from the experience of adopters in the lead country, and this learning can result in a faster diffusion rate in the lag markets" (Ganesh et al. 1997:216). For industrial new products, the learning effect is substantial. It took 17 years for the adoption of scanners (in retail) to peak in the United States, whereas it peaked much faster in the lag markets. Within Europe, the adoption peaked in 9 years in Germany and Belgium, where it was introduced in 1980, whereas in Denmark and Spain it peaked within 4 years, where it was introduced in 1986 (Ganesh and Kumar 1996:334).

Business or professional media are more global than consumer media. As yet, there is no evidence that global consumer media have the same effect. Tellefsen and Takada (1999) measured the influence of media availability on multicountry diffusion of consumer products. Variables used were numbers of television sets, radios and newspapers. Findings were that the number of television receivers per 1,000 inhabitants is significantly correlated with internal influence (interpersonal communication within a social system). This fits with our findings that members of collectivist cultures read less and rely more on word-of-mouth communication (De Mooij 2000). The authors did not report a possible link with culture and suggested that newspapers, to some degree, can act as substitutes for interpersonal communication. The study would be improved if - instead of media availability - readership or viewing time data had been used as variables. TV ownership is not necessarily related to TV viewing (Pasquier et al. 1998).

Barriers to adoption of new products can be incompatibility with prevailing values (Lambkin and Day 1989). Several factors are expected to influence the learning process in multicountry diffusion of new products: Geographical proximity, cultural similarity, economic similarity, time lag between the introduction of an innovation in the lead and lag markets, and existence of a technical standard. Ganesh et al. (1997, 1998) found evidence that cultural similarity and time lag are the strongest influencing factors, although the relative influence of these variables may vary across innovations. Thus, for the introduction of new products in several countries, it is important to cluster countries according to cultural similarities.

The measurement and comparison of diffusion across cultures is difficult, because diffusion rates must be compared over longer time periods. The most difficult problem of time-series research across countries is the availability and accuracy of data. If available at all, early data may not be accurate and/or not comparable with later data. Ganesh (1998:37-39) found data for five product categories (VCRs, microwave ovens, home computers,

cellular telephones, and CD players in Euromonitor reports. The earliest of these innovations - the VCR - was first introduced to Europe in the 1970s and 1980s; West Germany was first in 1970, and Portugal was last in 1982. The other innovations were introduced from the mid-1970s to the late 1980s. Annual sales data earlier than 1970 are rare. The coefficients of innovation were calculated for five product categories introduced after 1970: VCRs, microwave ovens, home computers, cellular phones and CD players. Findings were that "the values of the diffusion parameters (coefficients of innovation and imitation) for a given country and the variation in the parameters across countries have been shown to depend on several country-specific factors (e.g. socio-economic, sociocultural, and political variables) and manufacturer strategies (such as price)" (Ganesh 1998:46).

Several authors have tried to measure cross-cultural differences in the diffusion of innovations and find that all sorts of cultural factors play a role. Innovativeness is domain specific, that is, consumers who are likely to adopt the latest new product in one field may be laggards in another. Adoption of one new product reinforces adoption of others in the same category. "New product innovators will be drawn from the heavy users of other products within the product category" (Gatignon and Robertson 1985:853).

An example of a product for which the diffusion process varies across cultures is the computer. While in Germany consumers have lots of reservations against the computer, US consumers see the computer as mainly a means to success and prestige. Demand for durables measured in units follows completely dissimilar patterns in different countries. In the case of television receivers, 25 percent of households in Sweden had at least one set only five years after the introduction of TV, whereas that percentage was reached in 12 years in France. It is the culture and communication system that influences the rate of adoption. The rate of adoption in countries characterized by high context and homophilous communication (e.g. Japan, South Korea, and Taiwan) is higher (higher value for the imitation coefficient, i.e. word-of-mouth effect) than the rate of adoption in countries characterized by low context and heterophilous communication. In particular, countries whose national culture is characterized by low uncertainty avoidance, high individualism, and high masculinity are potential attractive targets for the introduction of product innovations (Fisher and Price 1992; Goldsmith et al. 1998; Helsen et al. 1993; Lindberg 1982; Müller 1998; Steenkamp et al. 1999; Takada and Jain 1992).

Lynn and Gelb (1996) developed an index of national innovativeness based on ownership of answering machines, home computers, video cameras, microwaves, compact disc players, cordless telephones and satellite dishes in 16 countries in Europe. This index of national innovativeness was found to be significantly correlated with national individualism ($r = .77$), uncertainty avoidance ($r = -.58$) and purchasing power ($r = .80$).

National culture is also expected to influence the development of new products. In the new product development process, two stages are important: initiation and implementation. Cultures whose strengths center on initiation are high in individualism but low in power distance, masculinity, and uncertainty avoidance. Cultures whose strengths center on implementation are low in individualism but high in power distance, masculinity, and uncertainty avoidance (Nakata and Sivakumar 1996).

2.4.6.3. Complaining behavior

The study of complaining behavior is common in quality management. As it is also part of consumer behavior, it is pointed at in this section. Related to differences with respect to the concept of self, perception of others, and patterns of interaction with their environment, consumers across cultures are likely to vary with respect to patterns of response to post-purchase dissatisfaction. Watkins and Liu (1996) suggested that compared with individualists, collectivist consumers are relatively loyal, and are less likely to voice complaints when they experience post-purchase problems. In contrast, they are more likely to engage in negative word-of-mouth to in-group members, and these negative communications are more likely to be attended to by other members of their (in)group(s). Moreover, when collectivists do exit, it is likely to be particularly difficult for the offending supplier to regain them as customers. Lowe and Corkindale (1998) compared Australians and Chinese and found that the Chinese from PRC were less likely to lodge a formal complaint for a faulty product, when compared with Australians.

2.4.6.4. Brand loyalty

Brand loyalty represents a favorable attitude toward a brand resulting in consistent purchase of the brand over time (Assael 1998:130). Few scholars have studied the relationship between culture and brand loyalty. Members of cultures of the configuration large power distance and collectivism are expected to be brand loyal because of the need to conform to the group: Choosing another brand than the group-members or brand switching distinguishes a person from the group. It is preferable to choose the popular or perceived popular brands. Large power distance implies respect for the status quo, the 'proper place' of the power brand, the brand with the highest market share. In Asia, big market-share brands are the kings of their 'brand world' and consumers in Asia believe in them implicitly (Robinson 1996). This is the reason why brands like Coca-Cola, Nescafé and San Miguel have such high and sustained market shares in a number of Asian countries. Being big automatically provides trust. This trust combined with the conformance need of collectivist societies leads toward high brand loyalty. This will be reinforced by uncertainty avoidance. Consequently it will be very difficult for new entrants to gain market share in these markets (De Mooij 1998a).

A distinction can be made between brand loyalty and store loyalty. Brand loyalty is more related to uncertainty avoidance and store loyalty to collectivism (Milner et al. 1993). Power distance also is an influencing variable. The Chinese are more willing to buy new products if they have a familiar brand name (Lowe and Corkindale 1998).

The degree of perceived risk (higher in strong uncertainty avoidance cultures) is expected to influence brand loyalty. There is a strong positive relationship between perceived risk and perceived brand commitment, which not only applies to individuals, but also to national cultures (Hoover 1978). Yavas et al. (1992) studied consumers of six countries including the United States, Mexico, The Netherlands, Turkey, Thailand and Saudi Arabia for intermarket segmentation on the basis of two criteria, perceived risk and brand loyalty (for bath soap and toothpaste). Findings were that consumers in the six countries vary not only in the degree of risk they perceive but also in the level of brand loyalty. This holds true for both products.

2.4.6.5. Responses to advertising

Earlier in this chapter, the influence of culture on communication was reported. Responses to advertising or other marketing-communications can, according to Manrai and Manrai (1996), be viewed as a consumer behavior domain. Examples of such responses are effectiveness of specific appeals in advertising, advertising messages, or in general, how advertising works. Other examples are response to brand name and packaging across cultures. How advertising works is related to how people process information but also to how willingly people are persuaded. Psychological research indicates that people reporting an external locus of control are more susceptible to being persuaded, socially influenced, and conform more than do internal scorers (Avtgis 1998:900). Similar differences at national level are likely to explain differences in general liking of advertising across cultures.

An example of how responses to specific advertisements across cultures vary is of the Benetton campaign. In four different national cultures (British, Norwegian, French and German) the intended messages that Benetton hoped to convey with the images used in their advertisements, have not been interpreted as they had wished (Evans and Riyait 1993).

Appeals that are effective in one culture, when used in another culture may result in different responses. Marketers targeting the 'old' Eastern Europe used to select a regiocentric approach without differentiating for the various countries in the area, although the cultures are very different. While the Polish like to show off, responses by the Romanians to status advertising were negative (Lascu et al. 1996). Advertising of one culture often is not understood in another one. The way an Asian perceives and evaluates writing differs significantly from the way a Westerner views writing. Aesthetic expression is different, and so is the use of colors. This is reflected in advertising responses (Schmitt and Pan 1994; Zinkhan 1994).

A consumer's need to conform to cultural values and norms when evaluating products is likely to depend on how the product is used and this will be reflected in responses to products. One cannot assume that the same set of values will influence two different groups of consumers' responses for the same marketing stimuli. This is particularly important for market research across countries. We cannot assume that causes for behavior in one country are the same as in another (Lowe and Corkindale 1998; Zhang and Gelb 1996).

Culture related communication styles influence interpersonal communication and mass communication (advertising). They also influence packaging design. Lianne Weitzel (1999) demonstrated that there are differences between the packaging of seven different countries, from which packaging was analysed (the Netherlands, Germany, UK, Spain, USA, Japan and Thailand). They differ both in three-dimensional design and in the way they communicate through graphical design. Culture appears to be of great influence on the noted differences. Also the category to which a product belongs influences packaging design. Deodorant is communicated differently from soup or cigarettes and that is reflected in the design of the packaging. All factors resulting from the analysis of the packaging of five product categories from seven different countries showed correlations with different Hofstede dimensions.

2.4.6.6. Media usage

Differences between cultures with respect to communication modes are related to media behavior. Individualist cultures are more verbally oriented and they get their information from the press, as opposed to collectivist cultures, being more visually oriented who find their information from TV. Newspaper reading is related to confidence in the press, which correlates positively with power distance (De Mooij 1999:110; De Mooij 2000:90). There are also differences with respect to the time spent watching TV. How people watch TV, alone, in groups, in the family, is related to culture. Green and Langeard (1975) reported large discrepancies in television viewership of two samples of US and French consumers, with 36 percent of the French respondents reporting that they watched television less than one hour per day, as compared with 9 percent of the US respondents. The US sample subscribed to an average of 3.7 magazines per respondent, while the French response showed an average of 2.4 magazine subscriptions per respondent. Several authors found great variability among the use of television, radio and other media across the countries of Europe. Increased variety of media supply (the new media) is likely to lead to divergence.

Differences in newspaper reading are thought to be caused by differences in wealth and education by some authors, while others state that the pattern is not very clear. Countries like Norway, Finland and Sweden rank much higher in newspaper strength than is to be expected by the GNP, whereas in the lower segment Italy, France and Belgium rank lower than expected from the economic indicator (Espe and Seiwert 1986; Gustafsson and Weibull 1997; McCain 1986; Papavassiliou and Stathakopoulos 1997). Krotz and Hasebrink (1998) analysed people-meter data from Germany and the three cultural regions of Switzerland and found substantial differences in television viewing. Chen and Allmon (1998) found noticeable differences between Taiwanese, American and Australian perceptions of the informative quality of radio and billboard advertising.

Domestic use of media by young people is organized according to the family situations that vary considerably across cultures. A European comparison of media usage shows that media life at home fits into differentiated national and cultural patterns. Although generally in all countries children increasingly have television sets in their bedroom, even for those who are equipped with a television in their own room, Flemish and French children watched it there much less often than young Italian or Swedish children. For example, among those 26 percent of Flemish children who had a television set in their bedroom, 18 percent often watched television there; in Sweden where one child out of two had a television in the bedroom, 37 percent always watched it there. In France, watching television still seems very much a family activity, highly likely to take place in the living room. Also the degree to which parents give freedom to their children with respect to what they watch varied enormously (Pasquier et al. 1998).

2.5. CONCLUSIONS

In this chapter we reviewed the literature relevant for our research. First we reviewed the discussion on the feasibility and possibility of standardization of advertising. During the

past half century nothing much has changed in this discussion. Decisions to standardize marketing and/or advertising strategy are producer driven, not consumer driven and are based on belief in convergence of consumer values, not on empirical evidence. What evidence supplied originates from surveys of managers. However, what managers say about what they do often is different from actual practice. In literature we also did not find empirical evidence of the existence of so-called global communities with universal values, although such groups are referred to as self-evident in many articles and textbooks.

Convergence theory was reviewed and we discovered that there is no empirical evidence to support the convergence thesis for consumer behavior. What evidence of convergence available is of convergence of societal variables at the macro level, and mainly related to converging incomes in the developed world.

The third topic to review was culture and values and their importance for advertising and consumer behavior. We defined culture, reviewed available dimensional models of national culture and discussed various aspects of values. Authors are generally in agreement over the fact that values are stable over time.

Finally, the literature dealing with the various elements of consumer behavior was reviewed, as far as relevant for advertising across cultures. Most models and theories of consumer behavior are developed in the United States and are presented in text books as universal and valid for the world. The classic models of consumer behavior do not integrate culture in a way to facilitate understanding of its function. We presented a model of consumer behavior that does integrate culture. Our literature review points at various elements of consumer behavior - intermediary variables, processes and consumer behavior domains - for which evidence is available of variation across cultures. Examples are attitudes, lifestyles, the concepts of self and personality, motivation, emotion, information processing, decision making, consumption and diffusion of innovations. Little evidence was found of culture's influence on variations in product ownership and usage.

An observation resulting from our literature study is that much has been written and researched in the field of global advertising and cross-cultural consumer behavior with little result. Assumptions of converging values, lifestyles and consumer behavior were frequently found, but they were never supported by empirical evidence. A few consumer behavior domains have been studied extensively, while others have been more or less neglected. One of these, consumption, usage and ownership of products and services across cultures will be subject to our study.

CHAPTER 3

ADOPTING A CROSS-CULTURAL RESEARCH METHODOLOGY

Convergence theory proposes that nations along with industrialization and modernization are becoming increasingly alike despite different cultural and historical legacies and diverse political and economic systems (Giddens 1991; Williamson and Fleming 1996). This convergence theory usually is the argument for international companies to standardize operations, products, marketing and advertising across national borders. The purpose of our study is to test whether the convergence theory is true or false in an absolute sense. Convergence may take place at the macro level, but not at the micro level. Economic and political systems (macro level) may converge, but consumer behavior (micro level) may not converge or may even diverge. If it is proven that there is no convergence of consumer behavior, companies should change their decisions for current and future strategies. Finding explanations and predictors for the future is one of the purposes of our study. Secondary data of a large area of consumption and consumer behavior are analysed. The results are presented and discussed in chapter four. In this chapter comparative research is reviewed. Methodology and limitations are described. We also point at a few specific problems of comparative research and describe methods used in our research.

3.1. METHODOLOGY

The theoretical value of cross-cultural research is the generalization of findings and constructs across cultures, or the attempts to invalidate a theory or "behavioral law" as culture-specific (Van Raaij 1978:693). To understand the problems of cross-cultural research we studied various aspects of methodology in literature, which are summarized in this section. Discussed are problems of comparative research in general, the level of analysis and data types, the macro-micro dichotomy, variables for cross-cultural research and the problem of interdependence of variables.

3.1.1. Cross-cultural comparative research

In the academic domain cross-cultural studies of consumer behavior do not have a long history. Academic writers tend to point at the lack of structure for understanding consumer behavior across cultures. Dunn (1965) is one of the first authors to state that there is surprisingly little cross-cultural research by US corporations in view of the rapidly mounting promotional budgets in many countries. This lack of perceived need for cross-cultural research is likely to be caused by the fact that most studies of consumer behavior originated in the United States. In the majority of marketing and consumer behavior studies published in North America and Europe, culture is implicitly considered to be a constant, and the interpretation and discussion of the studies' results tend to reflect the dominant norms, values and processes of the researchers' origin (Costa and

Bamossy 1995). Methods, scales and constructs developed in a North American or European context are adapted where appropriate for use with other samples (Douglas and Craig 1997).

We have found several statements about the lack of theory as an impediment for understanding culture's influence. Douglas and Craig (1997) describe different streams of research of cross-cultural consumer behavior and point at the lack of a conceptual framework. One stream of research, parallel to that in psychology, has focused on examining the universality of consumer models. Another has focused on comparison of different aspects of consumer attitudes and behavior such as values, attitudes and cognitions, information seeking and decision-making in different cultural contexts. A third stream of research focuses on comparing similarities and differences of consumer attitudes and behavior. For this, a comparative approach has typically been adopted, where the country is used as the basic unit of analysis. Some studies have focused on identifying global market segments based on demographic characteristics, such as global teenagers, women worldwide or elite consumers. Others have examined the extent to which behavior patterns are converging in areas such as food consumption, and whether panregional segments can be identified based on usage behavior and preferences. Few of these studies have, however, developed a conceptual framework to understand the link between cultural context and consumer behavior, and hence to interpret findings.

“Lacking is a strong conceptual framework, clearly articulating how and why one might expect to find differences or similarities across countries. This problem is common to other social sciences and stems at least in part from the ambiguity surrounding the term ‘culture’ as well as the complexity of macro-cultural influences. As a result, findings tend to be fragmentary and difficult to generalize beyond the immediate scope of a given study. Consequently, it is difficult to integrate findings and build them into a coherent body of knowledge relating to cross-cultural consumer behavior” (Douglas and Craig 1997: 384).

Yet another problem is that of the interdisciplinary approach. Psychologists focus on the individual as their unit of analysis. In communication we have to study various levels of aggregation: Relationships, organizations, institutions, even whole cultures (Rogers and Chaffee 1993). Indeed, cross-cultural research spans several social science disciplines. Most relevant here are the fields of anthropology, sociology and psychology that study respectively cultural, societal and social structural and individual behaviors (Venkatesh 1995). In the field of consumer behavior cross-cultural researchers typically have followed the approaches of psychologists and to a much lesser extent of sociologists. They tend to test monocultural concepts in multicultural settings. Their bias in favor of psychology stems from the dominance of consumer psychology in American academe.

The type of studies that cross-cultural consumer researchers undertake can more accurately be described as cross-national comparisons. Such studies are common in economics and the policy sciences. Examples include standard economic studies involving different national economies, World Bank reports and multinational investments reports in which the focus may be on such variables as gross national product (GNP), sales and turnover, disposable income, and so on. These variables are presumably objective measures that need no cross-cultural translation.

Next to the before-mentioned 'objective' data, few studies use data from survey research, probably because much of this research is proprietary and not available to academic researchers. Criticism on [social] survey research across countries and different time periods comes from Scheuch (1996), who states that often percentage points for each response possibility are treated as evidence, for example the Reader's Digest studies on consumers in Europe and the Shell International youth studies. Scheuch also states that surveys cannot be replicated: "Decades of survey research should have taught the social science community that many of the percentages reported cannot be replicated. They were the property of a moment in time only." Our findings do not confirm this criticism. Our study demonstrates that data based on samples of both social survey research (e.g. Eurobarometer) and commercial survey research (e.g. EMS and Reader's Digest) even when executed by different research companies, do show great similarities and consistency over time.

Another warning by Scheuch is not to treat national cultures, representing countries, as black boxes. For many differences, particularly with respect to eating habits, other than cultural variables may be explanators. Historical aspects often play a role. "One needs a great store of descriptive knowledge before one can use nation names as explanans in comparative work." Our argument is that Hofstede and researchers like Schwartz have delivered such explanations and so have large value studies such as the World Values Survey and the Eurobarometer surveys, also operating at country-level.

Choosing the relevant unit of analysis in cross-cultural research is often a matter of discussion. Douglas and Craig (1997:385) state that "in any research design, a first priority is to define the relevant unit of analysis or cultural group to be studied. Here, an important consideration is that there should be a high degree of homogeneity in attitudes and behavior among members of the group. A unit of analysis can be defined as 'people who are domestic speakers of a domestic common distinct language and belong to the same state or contact group. In most studies, nation-states are the units of analysis. According to Inkeles (1998:44) nation-states seem the most appropriate sociopolitical units of analysis because every aspect of the socio-cultural system is represented in nation-states. Nations, whatever their size, are the units used in reporting most social data.

To conclude: In literature, few studies are found measuring convergence or divergence of consumption or consumer behavior. Studies found compare countries on specific aspects of consumer behavior. Most studies try to find homogeneous target groups across borders, or groups of countries clustered according to country characteristics assumed to be unifying factors. A possible explanation of the limited number of cross-cultural studies of consumer behavior are that (1) focus has been more on the similarities than on the differences and the - mostly American and individualist - researchers are inclined to perceive more similarities than differences; (2) until recently, culture was seen as a 'fuzzy', not quantifiable concept; (3) the lack of consumer behavior data in the public domain.

3.1.2. Variables in cross-cultural consumer research

In this section we review literature on methods, criteria and variables used for segmenting markets and clustering countries. Because of assumed homogenization and

the resulting wish to standardize strategies, much research has focused on the similarities. A number of scholars have suggested the possibility of identifying one or more well-defined customer groups or segments across countries that are similar and thus represent a homogeneous market, making standardized marketing and advertising feasible. More than one single dimension should then be found to classify countries to single out different homogeneous target groups (Helsen et al. 1993; Jain 1989; Papavassiliou and Stathakopoulos 1997; Sethi 1970; Sriram and Gopalakrishna 1991).

The simplest way to cluster countries is by geographic region or by criteria of economic development. Sethi (1971) is one of the first to do this. He states that “in international marketing, different countries are grouped on the basis of geographical proximity. This simple approach is of doubtful value because it assumes that adjoining countries have similar cultural, religious, socioeconomic, and political characteristics, as well as similar marketing and distribution networks. The approach does not consider different determinants of buying decisions and buying processes.”

The most used variable to cluster countries is national wealth or GNP per capita. Other variables used for cross-country analysis generally are indirect measures of societal development and wealth: Education, urbanization and composite consumption variables. Increasingly cultural variables are used.

3.1.2.1. National income

Already in 1936, McGarry, in the very first issue of the *Journal of Marketing* (July 1936) expressed doubts about the explanatory influence of income differences. Yet, most cross-cultural consumer research uses macro-economic environmental indicators of economic development to find similarities in consumer behavior or explanations for the differences. Most characteristics used for comparison are macro-environmental and focused on measuring the level of economic development. International segmentation approaches either classify countries on a single dimension (e.g. per capita Gross National Product) or on multiple socioeconomic, political, and cultural criteria such as those available from the World Bank. Thus, countries tend to be clustered according to resource development, economic and demographic mobilization and societal development such as urbanization and literacy. Other factors are political system and/or stability, geographic region and/or proximity, and energy consumption. In some studies, these economic development factors are computed by factor analysis from a large number of phenomena related to economic development. Examples of variables used are: electricity production, urbanization (number of cities with a population over 100,000), school enrolment per capita, imports and exports per GNP, number of air passengers/km and volume of air cargo, life expectancy, literacy, percentage of population in agriculture, average work week, percentage employed in service, age profile, language, consumer price index, unemployment, government spending per capita, physicians/capita, political stability, manufacturing percentage of GNP, and private spending (percentage of GNP) (Craig et al 1996; Goodnow and Hansz 1972; Jaffe 1974; Liander et al. 1967; Ramond 1973; Sethi 1971; Sethi and Curry 1973 & 1974; Sheth and Lutz 1973).

Examples of macro-economic development variables measuring consumption differences used in comparative studies are per capita ownership of cars, motor gasoline consumption, radios, television sets, telephones (owned per 1.000 population), energy consumption, hospital beds, foreign visitors per capita, tourists expenditure per capita,

newspaper circulation and other aspects of media availability (Helsen et al., 1993; Jaffe 1974; McLauchlin 1993; Szymanski et al. 1993).

Not only are most of these measures of consumption highly correlated with each other, they also are highly correlated with measures of per capita GNP. So the factors mentioned before are basically a function of economic development and they are an indirect measurement of national wealth. GNP/capita is a useful measure of purchasing power, but a partial one.

An example of a more refined approach to country segmentation by income is by Oyewole (1998) who uses as consumption variables household consumption patterns based on the International Comparison Program (ICP), summarized into six main groups, namely foods, beverages, tobacco, consumer durable goods, consumer non-durable goods and services.

Our conclusion is that income at country level (GNP/capita), although an important variable to measure economic development, by itself does not explain differences in consumption or consumer behavior. Most variables used by researchers to measure economic development are interdependent and as such do not add much to GNP/capita. Sriram and Gopalakrishna (1991) agree and state:

“While many attempts have been made to unearth groups of homogeneous countries, economic characteristics are often used to identify groups of countries that are potential candidates for a standardized approach. The underlying premiss of many studies is that economic similarity makes standardized approaches possible. But other variables also play a role: Huszagh et al (1986 in: Sriram and Gopalakrishna 1991) found, for example, that there was a considerable difference in product acceptability even between five countries that were the members of the same economic cluster. It seems that economic similarity may be a necessary, but not sufficient, condition for the application of global strategy” (Sriram and Gopalakrishna 1991:140)

3.1.2.2. Indirect measures of societal development

Another aspect of income is that it represents other variables that may be of more influence on purchasing power. Different income levels generally also represent different education levels and different habits of magazine reading and TV watching, differences that are important for marketing communication (Wierenga et al. 1996). Education also influences income, yet income cannot be measured by education levels. Abrahamson and Inglehart (1995:84) warn against the use of education as a variable for measuring economic development: “We need to distinguish between two potential influences of education: (1) that education indoctrinates people to learn specific values; (2) that education is a strong indicator of whether one was raised by a prosperous or underprivileged family.”

Another macro-environmental variable that cannot be used to measure societal development directly is urbanization. Höllinger and Haller (1996) analysed social relationships between parents and children, brothers and sisters and friends. They found no relationship between urbanization and social ties of kin. A supposed association between a higher degree of urbanization and a declining frequency of contact with relatives could not be upheld in several cases.

“The size of a settlement, measured by the number of inhabitants of an administrative unit, is only one aspect of urbanization. In this context another factor seems to be important. Seven countries studied (Australia, US, UK, Germany, Austria, Hungary and Italy) differ more in the prevailing types of housing, and thus in types of settlement than in the degree of urbanization. Several sources of information disclose that approximately 80 percent of Americans, Australians and British have their own houses (one-family dwellings or semi-detached houses). In Austria this proportion is 57 percent, in West Germany 46 percent, and in Italy only 36 percent. The housing individualism in Britain and in the countries of the New World is an expression of the individualistic lifestyle in general” (Höllinger and Haller 1996: 157).

To measure development or developmental aspects of consumption such as materialism, modernity, innovativeness or patterns of media usage, several researchers use a combination of consumption variables (e.g. ownership of a number of durable products). Composite indicators used to study patterns of media use in Europe by McCain (1986) are the following: TV saturation, viewing minutes, daily TV reach, access to color TV, more than one TV, VCR penetration, average cost of video cassette, VCR index (=cost divided by GNP/cap), foreign TV share, radio reach, listening minutes, car radios, telephone access, newspapers, cable penetration, access to Teletext, total population in millions, total number of TV households, GNP/cap, license fee for radio and TV. Most of these indicators are interdependent and together they basically measure economic development. Ger and Belk (1995) measured the degree of materialism on scales including 20 products and services (e.g. house, car, air conditioning, VCR, color TV, air travel, computer), of which the respondents had to indicate whether they thought of each item as a luxury or a necessity. Ownership of the combination of TV, stereo, VCR, CD player and PC were considered to be the world standard package, used as indicator for the degree of materialism. The variables used for calculating modernity by Roth (1995) were GNP/capita, possession of autos, televisions, birthrate, population growth, people per dwelling, and percent employed in agriculture. The more autos and televisions per capita, the lower the birthrate, population growth, and percent employed in agriculture, and the fewer people per dwelling, the higher a region was rated on the modernity or socioeconomic level. Lynn and Gelb (1996) used the combination of another set of products as indicator of innovativeness: cordless telephone, telephone answering machine, home computer, microwave, compact disc player, video camera and satellite dish.

An alternative approach to understand ownership patterns is a study by Medina et al. (1996). They found similarities in acquisition patterns between Monterey, Mexico and Perth, Australia with the following underlying phenomena. (1) Products are inherently associated with each other, and thus follow a certain ‘sensical’ order of acquisition. For example, while people buy clothes washers and dryers because they are complementary appliances, it makes more sense to buy a washer first, and then a dryer. (2) There also may exist an underlying phenomenon unrelated to the inherent association that may exist between products. For example, people buy a television set not because they have previously acquired a radio but because they commonly enjoy entertainment and/or they share the need for being informed. Differences in ownership levels across countries were attributed to geographic, economic, demographic and cultural differences such as food preparation habits.

Some variables used for comparison or segmentation reflect ethnocentric bias. An example is the use of “need for convenience” as a variable. Luqmani et al. (1994) used this need for convenience as a variable to segment markets worldwide. A convenience orientation was defined as the value placed on and the active search for products and services that provide personal comfort and/or save time in performing various activities. The authors viewed segmentation of international markets according to the convenience orientation as promising because convenience-oriented consumption is on the rise worldwide. Product examples were fax machines and food processors. The problem of this approach is that the usage environment of the two products selected as indicators varies across countries. The authors state that in the United States fax machines used to be business machines but were becoming increasingly popular in the homes, assuming this to be a universal development. This was much earlier the case in the Scandinavian countries, so in fact the United States could be lagging. Compare this with lagging computer ownership in Germany, where these machines are mainly perceived to be business machines, while in the United States computers are “home PCs”. Another example is ownership of food processors. One may wonder if these are real ‘convenience’ products. In many countries they are used to prepare complicated home meals, in contrast to ready-bought meals.

3.1.2.3. Cultural values

Some studies include both economic development variables and variables measuring value differences. Dunn (1976) is one of the first to use a mix of those derived from factor analysis of environmental variables considered to be applicable to Europe. These are (1) Level of education. (2) Attitudes toward risk taking, achievement, work, wealth and monetary gain. (3) Experience and competence of personnel in foreign agency/subsidiary. (4) Degree of nationalism in country and attitudes toward the United States. (5) Rate of economic growth of country, per capita income and distribution of income. (6) Eating patterns and customs. (7) Attitudes toward authority and social class structure. (8) Independence of media from government control and availability of satisfactory media.

Increasingly variables measuring value differences or cultural variables are included in comparative cross-country studies. Usually cultural variables are added to economic variables. Sriram and Gopalakrishna (1991) used economic variables, cultural variables (e.g. Hofstede’s dimensions of national culture) and media availability/usage variables to analyse the possibilities of standardizing advertising. Economic development variables used are: Male and female life expectancy, average manufacturing working week, telephones in use per 100 inhabitants, percentage urban population, percentage annual inflation rate, per capita GNP, percentage literacy (15 years and older), and percentage population growth rate. Media variables are: paper circulation/1,000 population, televisions/1,000, radios/1,000, television advertising spending per capita, radio advertising spending per capita, outdoor advertising spending per capita, and cinema advertising spending per capita. In this study four factors emerged from factor analysis. These collectively explained over 66 percent of the total variance. Later in our study we will see that media use is linked with Hofstede’s cultural dimensions, so the variables used are interdependent.

Malhotra et al. (1998) state that “the important role cultural factors play in shaping the marketing environment in any market is unquestionable. Cultural influences are prime determinants of the consumer’s behavior, lifestyle, and consumption patterns. Thus, cultural factors are argued to be excellent grounds for segmenting the market.” The authors suggest clustering cultures in Europe and Asia according to Hofstede’s dimensions of national culture. Thus, in Europe, three clusters can be distinguished: (1) UK, Germany, Ireland, Italy, Switzerland and Austria (PDI-, UAI +/-, MAS +). (2) Belgium, France, Greece, Portugal, Spain and Turkey (PDI+, UAI+, IDV +/-, MAS +). (3) Denmark, Sweden, Finland, The Netherlands and Norway (PDI-, UAI-, IDV, MAS +). What the authors do not say, is that the clusters of dimensions will have to vary according to the product category involved, as other authors have pointed out.

Some authors express concern for the use of Hofstede’s cultural variables, particularly when using them with survey results such as of the Reader’s Digest Surveys: “At an operational level, the two constructs are measured using data collected with different instruments from different samples.” (Lynn and Gelb 1996). Our findings do not support this concern. We will see that data from different samples (e.g. EMS of various years) deliver similar results when correlated with the cultural variables. Lynn and Gelb (1996) expressed themselves positively on the utility of Hofstede’s indices: “Hofstede’s value indices have been empirically related to a variety of economic and social variables”. Milner et al. (1993) argued that Hofstede’s indices may also shed light on national differences in consumer behavior.

Our review of cross-cultural studies shows that most of the measurement variables discussed are indirect measures of national income. The underlying assumption is that economic developmental variables are the best to measure consumption differences. Only recently cultural values are included in comparative studies. We found that many of the variables used in cross-cultural research are interdependent. This is one of the problems discussed in the following section.

3.1.3. Level of analysis and data types

Interdependence of variables is a core problem in understanding the relationships between dependent and independent variables used for measuring differences in consumer behavior across nations. We want to understand the factors that influence the dependent variables (i.e. consumption and elements of consumer behavior). Composite economic development variables that include product ownership data are not useful to measure differences in product ownership that may be related to the products of the composite variable, so they cannot be used as a country’s characteristic to measure ownership or usage differences. Composites of media data at macro-level cannot measure differences between countries with respect to, for example newspaper reading or TV viewing. Economic development of a country as measured by GNP per capita, influences infrastructure that in turn influences potential communication behavior. But it does not measure variations in communication behavior across nations. Some differences in shopping behavior can only indirectly be explained by a country’s GNP per capita. Economic development is likely to cause similar levels of consumer expenditures but differences in preferences for type of distribution and type of products cannot be explained by income. For answering the question why in countries of similar development levels different distribution structures have developed and preferences for

different product types, we need other variables, independent from income. Not only do we have to review our variables to be used; we also have to review the level of analysis and data types to be used.

The purpose of our study is to find an explanation for variation of consumer behavior across nations, find generalizations and develop a theory. A theory explains and predicts social phenomena. Explanations must be logically open to extension to other cases to be valid. For this, we will have to understand the factors operating at the level of national systems. This defines our study as a cross-national comparative study. The comparison problems of such studies were analysed by Przeworski and Teune (1970) and Van Raaij (1978 and 1998). We draw from these authors to define levels of analysis and data types.

3.1.3.1. Level of analysis

We want to understand what it is about nations, "collectives" or "systems" that influences phenomena to be explained. We want to understand the characteristics of the systems because of their impact on the behavior of individuals within those systems. An example is the effect of an "authoritarian" culture on the degree of authoritarianism of individuals.

Consumer psychologists generally measure individual behavior within systems. Their measurements are at the individual level. In economic psychology individual behavior is also measured in order to test hypotheses on general phenomena. Individuals are sampled from a population in order to reach conclusions on that population (Van Raaij 1998). In comparative research, even though individuals are observed within systems, their properties, such as age or literacy, are aggregated and treated as system level variables. These variables are also called analytical properties, based on individual properties of the members of a system (e.g. average income). The findings resulting from comparison at system level relate an "average" person within a system to some characteristics of the system. Thus, individual characteristics are aggregated to system-level variables and system means of a dependent variable can be predicted from system means of independent variables on the basis of regression between systems (between-system regression). However, within-system correlations may be different from between-system correlations. So, inferences about individual-level relationships drawn from relationships between aggregated parameters may be fallacious. A classic example was the correlation between blacks and illiteracy between states in the United States while there was only a very weak correlation between blacks and illiteracy within each American state (Przeworski and Teune 1970:59-60).

Przeworski and Teune (1970) specified three types of systemic factors that can explain variation of characteristics of systems: *Diffusion patterns*, *settings* and *context factors*. Often, similarities of countries are explained by proximity of countries. If similarities are found of countries that are not close to each other (such as between the UK and Australia), they are likely to be explained as being based on independent phenomena. However, they may be based on the same phenomenon that results from *diffusion* of a cultural pattern. *Settings* constitute characteristics to which all individuals within a system are exposed. Settings may be historical, institutional, external, behavioral and physical. Historical factors may not only directly affect the behavior of individuals, but may also influence properties of the system that in turn affect individual behavior. Properties of a physical nature can be used when a culture is described in terms

of the influence of physical environment on individuals (e.g. climate). *Context* factors constitute aggregates of individual characteristics. A distinction among context factors is "structural" versus "population" variables. Structural contexts can be viewed as aggregates of individual relations within a system. Examples are class structure, division of labor or communication flow. Population contexts constitute aggregates of individual characteristics, whether they are predispositions or behavioral. For example "Syrian students are more authoritarian than American students". Such observations are expressed either as means or as proportions of populations in which the individual is the unit of measurement.

In many cases common historical learning is the best factor to explain variance. But problems of determining whether what is observed is caused by history or is a functional relationship are frequent. The problem is known in anthropology as "Galton's problem". A classical controversy of this nature concerns the meaning of the Weberian hypothesis relating Protestant values to capitalist orientations. Is it a "functional" relationship between protestant values and entrepreneurship or is it based on common historical learning? (Przeworski and Teune 1970:51-56).

Although our unit of analysis is the nation state, the choice of which nations to compare can influence the validity of our findings and reduce the possibility to generalize our findings and develop a theory. How do we get subclasses of cultures for which valid comparison is possible? And if we want to generalize a finding, how do we get two or more cultures that are not simply two or more illustrations of the same case? Evolutionary theory states that only cultures in the same stage of differentiation can be meaningfully compared (Van Raaij 1987:699). Scheuch points at a similar comparison problem. "Comparisons that include both modern and developing countries produce differences that are very hard to interpret - if they make sense at all. An example: in youth surveys one observes young people in developing countries reacting with high degrees of optimism that are factually completely inappropriate - such as in India. By way of contrast, young people in Sweden or in the Netherlands exude gloom in the wake of incomparably greater opportunity. Such examples should not be read as a "no" to comparative survey research but it points to a need for intensive consideration of intervening and contextual factors before differences between countries can be explained" (Scheuch 1996:68).

Such considerations have influenced our choice of variables and selection of groups of countries. We will, for example analyse differences both between countries of similar and of dissimilar economic development (see sections 3.2.2 and 3.3).

3.1.3.2. Data types

Van Raaij (1998:337) also analyses the relationship between the individual and the collective and adds a *time* dimension. "In a cross-sectional study we collect data on individual or collective properties at one point in time; in a time-series approach we collect data at a number of points in time, either at the individual level or at the collective level. In a panel study, we monitor a number of individuals or households over a period of time. The other time-series approach is to have repeated samples and to develop a series of collective properties from these samples".

Van Raaij (1998) distinguishes four types of data.

Type 1 data are the common type of data collected in economic psychology. In order to test a hypothesis, data are collected from a sample of the relevant population or collective. The basic characteristic of *Type 1* data is the parallel meaning of the relationship at the individual and the aggregate level, which allows us to predict.

For *Type 2* data we need at least to compare two collectives, for instance the degree of integration of precincts, with the hypothesis that we expect a higher degree of integration in rural precincts as compared with inner-city precincts. Prediction at the individual level is no longer possible; we now predict the integration of a precinct based on the level of urbanization, in our example.

The time dimension enters in *Type 3* data. Here, we collect data of individuals at different points in time. This allows us to study sequential processes, such as vacation decision-making or travel behavior.

Type 4 data are at the aggregate level, repeated observations over time. The Index of Consumer Sentiment (ICS) is an example of this type of data. The ICS is computed from quarterly sample data in the USA and used to predict discretionary expenditure, credit and saving. Each sample is drawn from the population independent of earlier samples. Causal effects can be tested at the aggregate level, for instance an increase of unemployment over time (Van Raaij 1998:337).

Van Raaij depicts the four Data Types as follows:

Level	Cross-section		Time-series
Individual (micro)	1. Survey data of individual respondents ↓ A	→ B	3. Panel data of individual respondents ↓ D
Collective/system (macro)	2. Structural properties of collectives	→ C	4. Indexes, summary statistics at different time points

Source: Van Raaij (1998:337)

Van Raaij states that in aggregate time series measures of attitudes have been found to be significant predictors of consumer expenditure for durable goods. He found that type 4 data show the predictive value of the expectation.

Van Raaij's typology fits the data types proposed to use for our study. We use analytical properties (GNP/cap) and population properties (cultural values) to compare data at the collective (= system) level from repeated samples (e.g. EMS). We use type 2 and type 4 data of Van Raaij's typology.

3.1.3.3. Macro- and micro-level data

Data can be distinguished between macro- and micro-level. In chapter two (pages 23-24) we summarize several descriptions of the macro- and micro dichotomy. Our definition of macro-level data is "data representing measurements of advancement of countries at the aggregate level, such as GNP per capita, education and measures of technological advancement. These are statistical indicators of a country's economical development that often are also composites or summaries of other phenomena. Examples are numbers of telephone main lines, cars per 1,000 population or Internet hosts per 10,000 population.

Our definition of micro-level data is "data reflecting consumer choice or preferences for one way of behavior over others." Examples are usage of telephone main lines (e.g. local or international calls), numbers of cars per family or use of the Internet for leisure or business. Most micro-level data are retrieved from consumer surveys. While most analytical properties such as GNP/cap or cars per 1,000 population are viewed as macro-level data, some are considered to be micro-level data because they reflect choice. An example is the percent of household consumption spent on food or leisure. We consider these data to be measurements of choice of consumers at the national level.

3.2. CHOICE OF METHODOLOGY

The purpose of our research is to examine whether countries converge or diverge with respect to consumer behavior and in case of non-convergence, to find explanations and predictors for differences across nations. Multinational and global companies have the choice to standardize or differentiate their marketing and/or advertising across nations or clusters of nations in regions. Thus, the logical conclusion is to select as units of analysis nations and use variables of national income and national culture. Our study targets "systems" at national level. We will distinguish between developed and developing nations, so various groups of countries will be subject to cross-country comparison. We will compare countries in groups that are economically heterogeneous and groups that are economically homogeneous, worldwide and of closer proximity (Europe). The best way to measure convergence-divergence is to analyse data over time. Another one is to analyse the same data both worldwide and in more homogeneous groups.

In literature we distinguished a number of elements of consumer behavior that are likely to be explained by different independent variables. We also assume that different product categories are to be explained by different independent variables. Because of the many different product categories and elements of consumer behavior we decided not to select a few exemplary elements of consumer behavior or sample product categories, but use a maximum of available data to find evidence of convergence or divergence. If we would focus on only a few consumption domains, according to Inkeles (1998:48) "any single instance of alleged convergence may simply represent the workings of chance". Consequently, a large volume of data from various sources is analysed.

As we have to work with data in the public domain, the limitations to depth and width of this study are in the availability of the data. Another limitation is in the reliability of the data. The further back in time, the less sophisticated data tend to be. Also, databases tend to include changes in methods of data collection over time. For example, Euromonitor data can only be compared after 1992, because of a change in data collection in that year.

3.2.1. Sources

Data from a number of sources are analysed. The sources can be distinguished in three categories:

1. Comparative statistics on sales of products in units, volume or value per capita, or ownership per 1,000 population, worldwide and in Europe (Examples are data from Euromonitor reports, data from World Bank Reports and from UN Statistical Yearbooks).
2. Published data on product or media ownership and usage, related to attitudes and

values in Europe only, derived from survey data. (Examples are the Reader's Digest Surveys among European consumers and EMS, the European media and Marketing Surveys).

3. Published data of value and attitude studies across nations also derived from survey research. (Examples are the World Values Survey and Eurobarometer).

3.2.2. Groups of countries

We compare both countries of varying developmental levels and countries of similar development. Because of the assumed convergence in homogeneous areas, if data are available, calculations will be done for several areas in order to see if relationships vary by area. Four groups of countries are used as samples of countries for calculations.

Group one ("Worldwide 44") is a collection of 44 countries worldwide, spread over the continents, of which for a number of product areas data are available over time. The 44 countries are the following: Argentina, Australia, Austria, Belgium, Brazil, Canada, Chile, Colombia, Costa Rica, Denmark, Ecuador, El Salvador, Finland, France, Germany, Greece, India, Indonesia, Ireland, Israel, Italy, Japan, Korea, Malaysia, Mexico, the Netherlands, New Zealand, Norway, Pakistan, Panama, Peru, Philippines, Portugal, Singapore, South Africa, Spain, Sweden, Switzerland, Thailand, Turkey, Uruguay, United Kingdom, USA, Venezuela.

Group two ("Developed 26") consists of 26 developed economies worldwide. These are the top 25 economies of 1998 (excluding Liechtenstein, Luxembourg, Bermuda, Cayman Islands, Iceland, Monaco, Brunei, Hong Kong, United Arab Emirates, Slovenia, Malta, Antigua and Barbuda) plus Venezuela. The 26 countries consist of the 25 economies with in 1998 a GNP/capita over US\$ 7,979 or GNP/capita at PPP up till US\$ 12,270 (Korea, Rep). This group includes only one country in Latin America (Argentina). Venezuela (GNP/cap US\$ 3,500 or GNP/capita at PPP = US\$ 8,190) is not included in the 25 top economies in 1998, but it was until 1988, when Korea took its place. So, Venezuela is included for comparison purposes over time. The 26 countries are the following: Argentina, Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Japan, Korea, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, United Kingdom, USA, Venezuela.

Group three ("OECD 20") is a group of countries that have been part of the OECD (Organization for Economic Co-operation and Development) since 1969. The 20 countries are the following: Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, USA. This group was mainly used in our test phase.

Group four ("Europe 15") consists of 13 members of the European Union plus Norway and Switzerland. These are the countries covered by the EMS surveys of 1997 and 1999. The countries are Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and United Kingdom. When Eurostat data are used, we can only include the 13 EU countries (excluding Norway and Switzerland) of this group.

3.2.3. Measuring convergence-divergence

For measuring convergence or divergence, the coefficients of variation (the ratio of the standard deviation to the mean) are computed and compared over time. If no time-series are available we compare between heterogeneous and homogeneous economic regions (if worldwide data are available). The coefficient of variation (CV) is explained in Williamson and Fleming (1996:349-350), who prefer the coefficient of variation rather than “the more common alternatives such as the standard deviation or variance because the coefficient of variation is adjusted for shifts in the mean (i.e., a 10-point spread is likely to have a different interpretation around a mean of 150 than around a mean of 15). The greater the decrease in the coefficient of variation over a specified period of time, the greater the convergence”. When data are available for different time periods, we also present a measure of the mean convergence per year.

Williamson and Fleming (1996:354) express the mean convergence per year symbolically as follows:

$$MC/year = \frac{(CV_{t_1} - CV_{t_2})}{CV_{t_1}} \times 100 / (t_2 - t_1)$$

where MC/year = mean convergence per year, CV_{t_1} = coefficient of variation at the earlier date, CV_{t_2} = coefficient of variation at the later date, t_1 = the earlier date, and t_2 = the later date. Implicit in this statistic is the simplifying assumption that any ten-, or twenty-, or thirty-year period is equivalent to another. Some such statistic is needed when comparing convergence trends for different length time spans, but clearly there will be at least some variation in the rate of convergence from one period to another.

3.2.4. Measuring relationships

Pearson product-moment correlation analysis is conducted to show the relationships between the independent variables and data on consumption and consumer behavior, all at national level.

Regression analysis is conducted to add information. In all calculations GNP/capita ("Income" or "INC") and cultural variables (Hofstede's country scores) are used. In some cases, if relevant, others are added, such as climate or population density. Correlation analysis is one-tailed. Significance levels are indicated by * $p < .05$; ** $p < .01$; and *** $p < .005$. In some cases we add ^{ns} (nearly significant) when $p < .053$.

One remark concerns the fact that surveys tend to use questions with answer categories using ordinal scales. In some cases, the information contained in the frequency distributions is reduced to a single number. For this, the mean answer scores are used and correlated with the independent variables. Statistically this is not correct and results must be noted as indicative. Hofstede (1984: 51) also uses mean scores in product moment correlations, rather than the median as central tendency “because it loses the least information, is easier to compute and plays a role in all parametric statistical calculations, such as product moment correlations. However, it formally presupposes interval scales that we do not have. The median is the theoretically more correct measure, but for short scales with many cases per answer category it approaches the mean closely.” .. “In a random sample of 100 five point frequency distributions, the median could be shown never to differ more than .10 points from the mean; the mean difference between the two

was .02 points (the median lower)” (Hofstede 1980: 89).

Multiple linear regression analysis is done stepwise. The coefficient of determination or R^2 is the indicator of the percentage of variance explained. This sample R^2 tends to be an optimistic estimate of how well the model fits the population. The model usually does not fit the population as well as it fits the sample from which it is derived. The statistic adjusted R^2 attempts to correct R^2 to more closely reflect the goodness of fit in the model of the population. The adjusted R^2 does not necessarily increase as additional variables are added to an equation (Norusis 1990: 269). Particularly when numbers of variables are increased, analysis of the adjusted R^2 is of importance. In our case, the number of independent variables is always the same: 5, and only in a few cases a sixth variable is introduced. As a result, the differences between R^2 and adjusted R^2 are always of similar magnitude. Analysis of a random sample of 100 calculations (stepwise regression) shows that the average difference between adjusted R^2 and R^2 is .024, with a maximum of .062 and a minimum of .004. For reasons of consistency and clarity in presentation, it was preferred to use non-adjusted R^2 in all tables.

In this section we discussed our choice of methodology: Sources, how to group countries, how to measure convergence-divergence and the type of statistical analysis. In the following section we discuss our choice of independent variables.

3.3. CHOICE OF INDEPENDENT VARIABLES

The following variables have been considered for inclusion in our analysis: income (GNP/capita or GNP/capita at Purchasing Power Parity), Hofstede’s five dimensions of national culture (PDI, IDV, UAI, MAS and LTO), climate (CLI), urbanization (URB) and population density (PDN). Before defining and discussing the variables, we analyse their interdependence. In preliminary statistical analysis, we tested the variables for a few product categories. Because of the assumed influence of climate on consumption (Parker 1997) we tested the role of climate in explaining variance of food products in order to decide whether to include this characteristic as an independent variable in all our calculations. We also tested the two socio-demographic variables urbanization and population density because we considered using them as many other researchers do so. The variables are defined in this section and the choice of variables is discussed. In table 3.13 at the end of this chapter (page 101) we present the data for all variables considered for 44 countries.

3.3.1. Interdependence of variables

In tables 3.1-3.3 the interrelationships between income, the cultural variables, climate and the socio-demographic variables are shown for 44 countries worldwide, for the group worldwide 26 and for the 15 countries in Europe. The most significant correlations are worldwide between PDI and IDV ($r = -.66^{***}$), PDI and GNP/cap ($r = -.60^{***}$), and IDV and GNP/cap ($r = .69^{***}$). In the group Developed 26 we see similar interdependence between GNP/cap, PDI and IDV. This is not so in the group Europe 15. The only important significant correlation in Europe is between PDI and UAI ($r = .76^{***}$). This relationship can be explained historically: the configuration PDI+/UAI+ reflects the values of the former Roman empire (Hofstede 1991:135). The effect of this interdependence is that in some cases the two dimensions serve alternately as explaining variables. Yet in some cases, both dimensions have clearly distinct functions. In Europe, there is no significant relationship between individualism and income. This may be caused by the diminishing income differences in Europe.

Table 3.1. Interrelationships variables Worldwide 44 (LTO = 27)

	PDI	IDV	MAS	UAI	LTO	CLI	GNP95	URB	PDN
PDI		-.66***	.11	.21	.33*	-.69***	-.60***	-.32*	.14
IDV	-.66***		.05	-.38***	-.35*	.76***	.69***	.40**	-.17
MAS	.11	.05		.05	.18	-.27*	.08	.04	.05
UAI	.21	-.38***	.05		.16	-.22	-.28*	-.13	-.41***
LTO	.33*	-.35*	.18	.16		-.47**	-.14	.02	.21
CLI	-.69***	.76***	-.27*	-.22	-.47**		.71***	.35**	-.19
GNP95	-.60***	.69***	.08	-.28*	-.14	.71***		.56***	.29
URB	-.32*	.40**	.04	-.13	.02	.35**	.56***		.30
PDN	.14	-.17	.05	-.41***	.21	-.19	.29	.30	

Table 3.2 Interrelationship variables Developed 26 (LTO = 22)

	PDI	IDV	MAS	UAI	LTO	CLI	GNP95	URB	PDN
PDI		-.58***	.12	.41*	.35	-.52***	-.31	.12	.35*
IDV	-.58***		-.07	-.40*	-.53***	.58***	.41*	.06	-.38*
MAS	.12	-.07		.25	.27	-.49***	.03	-.04	-.01
UAI	.41*	-.40*	.25		.21	-.28	-.34*	-.30	-.40*
LTO	.35	-.53***	.27	.21		-.54***	-.06	.22	.28
CLI	-.52***	.58***	-.49***	-.28	-.54***		.38*	-.22	-.42*
GNP95	-.31	.41*	.03	-.34*	-.06	.38*		.01	.16
URB	.12	.06	-.04	-.30	.22	-.22	.01		.35*
PDN	.35*	-.38*	-.01	-.40*	.28	-.42*	.16	.35*	

Table 3.3 Interrelationships variables Europe 15

	PDI	IDV	MAS	UAI	LTO	CLI	GNP95	URB	PDN
PDI		-.23	-.01	.76***	.06	-.51*	-.40	.01	.20
IDV	-.23		.05	-.58*	-.09	.42	.39	.74***	.41
MAS	-.01	.05		.25	.06	-.54*	-.00	-.18	.18
UAI	.76***	-.58*	.25		.09	-.66***	-.30	-.32	.31
LTO	.06	-.09	.06	.09		-.32	-.40	.09	.31
CLI	-.51*	.42	-.54*	-.66***	-.32		.35	.34	-.26
GNP95	-.40	.39	-.00	-.30	-.40	.35		.28	.12
URB	.01	.74***	-.18	-.32	.09	.34	.28		.50*
PDN	.20	.41	.18	.13	.31	-.26	.12	.50*	

The correlations between the cultural variables power distance, individualism and income can be explained. Hofstede (1991:31) states that higher education levels lead to smaller power distance. As higher education levels are related to income, the logical relationship is that small power distance is related to higher income.

There is a hierarchical relationship between climate, individualism and wealth: in the colder climates more individualism is found, individualism leads to wealth and wealth, in turn leads to more individualism. (Hofstede 1991; Kim 1994).

According to Hofstede's (1991:53) findings nearly all wealthy countries score high on individualism while nearly all poor countries score low. There is a causal relationship between wealth and individualism: national wealth drives individualism. When a country's wealth increases, its citizens have access to resources which allow them to do their 'own thing', a characteristic of individualist societies (Hofstede 1991:76).

3.3.2. Income

The assumed strongest influence on consumer behavior is income. The amount of disposable income is expected to determine buying behavior once the basic needs are fulfilled. This sounds logical, yet what must be considered to be basic needs, is not the same all over the world. In affluent societies, basic needs may include television-watching capability in the own home, in others it is just limited to food and shelter.

A commonly used measure to compare wealth is the *Gross Domestic Product* or the similar measure *Gross National Product*. There are however some problems when comparing different countries using this information. *First*, for comparison the data must be converted into a common currency. The US\$ is commonly used for this purpose. The fluctuations in the exchange rates often disturb the picture. A *second* problem with the conventional GDP calculations is that it includes all efforts in a country. That does however not necessarily reflect the exact welfare of the community.

In an effort to improve the comparability, the United Nations and the World Bank developed a method to calculate a "real" GDP on an internationally comparable scale. Originally this "new" GDP was called "ICP", named after the UN International Comparison Program (De Mooij 1994:143). Later it was called "GNP measured at PPP" (Purchasing Power Parity). The World Bank publishes the data in the annual World Development Reports. The World Bank definition of GNP measured at PPP is GNP converted to US dollars by the purchasing power parity (PPP) exchange rate. At the PPP rate, one dollar has the same purchasing power over domestic GNP that the US dollar has over US GNP; dollars converted by this method are sometimes called international dollars (Technical Notes World Development Report 1998/99).

Because differences between countries with respect to Purchasing Power Parity are expected to better explain product consumption than GNP/capita, PPP data of the relevant years should ideally be used in this study. However, these data are only available from 1990 onwards. Income per capita at PPP and GNP/capita are closely related. This is demonstrated by the correlations between GNP and PPP over time, as presented in tables 3.4 and 3.5. Because of this close relationship, it was decided to use only GNP/capita for calculating the relationship between national wealth and consumption. For calculations

with data of a specific year, GNP/capita of that year is used and the abbreviation “INC” is used for GNP/capita of any relevant year.

Table 3.4: Relationships GNP/capita and PPP/capita by year (44 countries worldwide)

	GNP97	GNP95	GNP94	GNP93	GNP92	GNP91	GNP90	GNP89
PPP 97	.95***							
PPP 95		.95***						
PPP 94			.96***					
PPP 93				.95***				
PPP 92					.95***			
PPP 91						.95***		
PPP 90							.92***	
PPP 89								.93***

Table 3.5: Relationships GNP/capita and PPP/capita by year (15 countries, Europe)

	GNP97	GNP95	GNP94	GNP93	GNP92	GNP91	GNP90	GNP89
PPP 97	.94***							
PPP 95		.94***						
PPP 94			.95***					
PPP 93				.94***				
PPP 92					.90***			
PPP 91						.91***		
PPP 90							.96***	
PPP 89								.95***

Over time there is also a relationship between the rate of convergence of GNP/capita and national income at purchasing power parity, but convergence of GNP/capita at purchasing power parity is stronger than of GNP/capita. While in Europe in 1998, the coefficient of variation for income at PPP reached .15 as compared with .23 in 1990, the lowest coefficient of variation for GNP/capita was .30 in 1998 as compared with .37 in 1990 and .41 in 1960.

3.3.3. Cultural variables and Climate

As meteorological climate is viewed as a control mechanism of culture (Geertz 1973) and a strong influence on behavior (Parker 1997), in this section we review our choice of cultural variables and the relationship between the cultural variables and climate.

There are few studies that have defined and quantified cultural differences in such a way that they can be used as cultural variables for comparative analysis of consumer behavior. The best available is Hofstede’s model of dimensions of culture. To compare national cultures, Hofstede (1991) distinguishes five dimensions: Power Distance (PDI), Individualism vs Collectivism (IDV), Masculinity vs Femininity (MAS), Uncertainty Avoidance (UAI) and Long Term Orientation (LTO). The model is described in chapter 2, pages 33-38.

Although the model originally was used to explain differences in work related values, it can be applied to consumption-related values and motives (De Mooij 1998a). Although other comparative studies have resulted in dimensions of culture (e.g. Schwartz, Trompenaars), the Hofstede dimensions were proved to be the most robust in the replications by other scholars. For Europe recent country scores were found by including

Hofstede's Value Questionnaire 1994 in the EMS survey of 1997. Comparison between Hofstede's IBM scores and the EMS scores shows that the similarities are more robust than the differences (Hofstede 2001). Table 3.6 compares the results of product moment correlations between a number of food/beverages categories and a few data related to passenger cars: ownership of one car, new car registrations and car bought new. All data are of 1997. Food data are from Euromonitor 1997, in volume per capita. Car data are from EMS 97. EIDV, EMAS, EUAI and LTO are the scores for individualism, masculinity, uncertainty avoidance and long-term orientation that resulted from Hofstede's questions (VSM94) in the questionnaire of EMS 1997 (see table 2.3, page 37).

Table 3.6: Product moment correlations various products and Hofstede's IBM/EMS scores

	PDI	IDV	EIDV	MAS	EMAS	UAI	EUAI	LTO
Ice cream	-.57*	.45*	.44	-.49*	-.63**	-.76***	-.84***	-.20
Milk	-.40	.06	.22	-.36	-.57*	-.51*	-.58*	-.21
Jams/preserves	-.31	.09	.23	-.71***	-.63**	-.46*	-.72***	-.17
Fish	.51*	-.74***	-.18	-.38	.01	.50*	.23	.00
Frozen Food	-.33	.45*	.72***	-.22	-.23	-.69***	-.57*	-.35
Biscuits	-.03	.57*	.66***	.11	.04	-.44*	-.14	.08
Mineral water	.56*	-.10	-.36	.57*	.70***	.73***	.76***	.05
Soft drinks	.18	.21	-.20	.78***	.57*	.38	.57*	.11
Fruit juice	-.47*	.42	-.04	-.39	-.59**	-.48*	-.60**	-.09
One car	-.58*	-.05	.09	-.63**	-.82***	-.53*	-.77***	-.04
New car regs	-.08	.10	-.36	.74***	.54	.25	.44*	.06
Car bought new	.57*	-.42	-.45*	.46*	.64***	.80***	.84***	.21

Our findings are that similar dimensions explain variance and the correlations have the same directions. The difference is in the level of significance. From this, it is concluded that, for consistency reasons, the best option is to consistently use Hofstede's IBM country-scores. Because there are few IBM scores for Europe for the fifth dimension, the EMS LTO scores will be used in correlation analysis. In regression analysis, LTO scores will only be included for Europe. For the other country groups not all countries are covered, so LTO scores are not included in regression analysis, unless our correlation results indicate that LTO may be a strong predictor. In such cases the results are only relevant for a smaller number of countries.

Climate (e.g. tropical, polar, temperature, high-altitude) is typically defined as "average meteorological conditions specific to a geographic region over a period of several years or decades". The earth's climates originate from solar radiation that varies in relation to one's absolute latitude from the equator. No two countries have identical climates. A large portion of countries, however, have similar climates across broad classifications: e.g. mostly desert or tropical (Parker 1997:32-34). Geographical latitude is an unambiguous measure of a country's geographical position and a crude measure of climate. At face value, average temperature may be a better indication, but in some countries extreme temperatures may vary widely between low and mountainous countries. Another problem is the 'average' character of the data, which makes them not very credible for large countries like the US, Russia and China. According to Parker, solar climate (by us used in the abbreviation "CLI" = absolute latitude squared, to account for the earth's curve), generally explains the largest variances in behavior. Parker found that solar climate has statistically equal or greater explanatory power than income per capita for a variety of behaviors that are typically thought of as being "development driven". He found significant correlations between climate and for example consumption per capita of milk and coffee, percent of households in Europe owning a microwave

oven, personal stereo and personal computer, daily newspaper circulation per capita, telephones per capita, and percent of homes in Europe owning a video camera.” According to Parker, in 1994, solar climate alone explained some 60 percent of the variance of income per capita across countries.

Climate is likely to have a direct and indirect influence on consumption. Directly it may influence consumption of beverages, food products and energy consumption. Indirectly it is likely to influence other behavior because of the relationship between climate and culture. Various definitions of culture include the influence of climate on culture. Both Hofstede (1984; 1991) and Geertz (1973:45) include the control mechanism of culture in their definitions. Geertz argued that what distinguishes men from nonmen is the fact that “a marginal genetic change of some sort rendered him capable of producing and carrying culture and thenceforth his form of adaptive response to environmental pressures was almost exclusively cultural rather than genetic. As he spread over the globe, he wore furs in cold climates and loincloths (or nothing at all) in warm ones; he didn’t alter his innate mode of response to environmental temperature. Culture, rather than being added on, so to speak, to a finished or virtually finished animal, was ingredient, and centrally ingredient, in the production of animal itself.” Geertz (1973:49) concluded: “Most bluntly, [the development of mankind] suggests that there is no such thing as a human nature independent of culture. We are, in sum, incomplete or unfinished animals who complete or finish ourselves through culture - and not through culture in general but through highly particular forms of it.” Parker (1997:38) stated that physiological factors, and particularly climate are the most influential on behavior. As climate varies across the globe it affects differences in behavior. According to Parker (1997:14), “climate affects resources and temperature that affect natural vegetation that in turn affects dietary preferences and consumption patterns. Although economic, demographic and cultural variables, if added together may explain more than 100 percent of the variance of certain behaviors, both are driven by unidentified exogenous variables. Climate may well be the source of a hierarchy of human generated differences.”

Hofstede acknowledged the relationship between climate and culture (1991:76) in particular with respect to power distance and individualism/collectivism. Geographical latitude is the first predictor for power distance and - after national wealth - the predictor for individualism. Next to the interdependence with income, worldwide CLI is significantly correlated with PDI ($r = -.69^{***}$) and IDV ($r = .76^{***}$). In the group Developed 26, CLI is also significantly correlated with PDI ($r = -.52^{***}$) and IDV ($r = .58^{***}$). In Europe significant correlations are with PDI ($r = -.52^*$), MAS ($r = -.54^*$) and UAI ($r = -.54^{***}$), see tables 3.1, 3.2 and 3.3 (page 87). Because of this interdependence, solar climate (CLI) is only used as independent variable in this study if relevant for specific product categories, such as food.

Our findings indicate that climate directly influences the quantity and types of certain food products people consume. In cold climates people need a higher energy intake and in hot climates people need more liquid intake. However, over time, with economic development, other variables explain variance better. The relationship between the amount of food consumed (calories per day per capita) is more significantly related to income than to climate (table 3.7). Equally, INC and IDV play a role. There is a significant correlation between calorie intake and urbanization, which may be due to the relationship between income and urbanization. In Europe however, only masculinity explains variance of calorie intake.

Table 3.7: Product moment correlations calories/day/capita, 8 variables

	CLI	INC	PDN	URB	PDI	IDV	MAS	UAI	LTO	Pred.	R ²
Worldwide	.71***	.77***	-.03	.44***	-.56***	.75***	.07	-.07	-.17	INC	.60
										IDV	.66
										UAI	.72
Europe 15	-.26	.26	.32	.24	.05	.23	.55*	.11	-.12	MAS	.30

Because of the interdependency of the variables, in particular the correlation between climate and income worldwide ($r = .71***$) and between climate and UAI in Europe ($r = -.66***$), climate often is a predictor if included in regression analysis. But often relationships with other, related variables explain variance better. Do people consume milk or ice cream for energy intake? Pasta or bread? Fresh food or frozen or processed food? According to Geertz's definition of culture climate is one of the influences on the development of mankind, but only one, for during the development process, humans have adapted in different ways to several other environmental conditions. Different cultures have reacted to technological developments in different ways, have developed patterns of behavior that cannot be explained directly by climatic differences. If we want to understand the differences of today, we must understand the various hierarchies of influences resulting from the past that drive our current consumption behavior.

This hierarchy concept may imply that some consumption habits - such as eating and drinking - may be directly related to climate while others may be influenced only indirectly. Over time, climatic differences have led to differences in human behavior and attitudes that have become part of the society people belong to, which in turn influences their consumption patterns. Thus a second phase in the hierarchy is when the social environment causes behavioral differences. The further a society is developed with respect to industrialization, modernization or globalization, the greater the influence of social, psychological or cultural variables will be on national or local behavior. Historical learning has caused the influence of climate of the past to remain in the collective memory. An example is how, despite the ubiquitous refrigerator, people in warm climates still do not trust fresh milk.

Climate may often explain variance because of its indirect influence on development, but income and the cultural factors are more meaningful for explaining variance. This made us decide not to include climate in the equations, only if relevant for the product category. Examples of such categories are food and energy consumption.

3.3.4. Socio-demographic indicators

According to Inglehart (1990, 1996, 1997), economic development is linked to a syndrome of changes that include not only industrialization, but also urbanization, mass education, occupational specialization, bureaucratization, and communications development that in turn are linked with still broader cultural, social, and political changes. These changes tend to be summarized in the concept of modernization with its promise of predictive power. Modernization theory implied that once a society entered the trajectory of industrialization, certain types of cultural and political change were likely to take place. Höllinger and Haller (1996) stated that such variables as urbanization, mobility, and sociocultural family patterns can explain international differences in social networks, but also that different aspects of family structures do not necessarily follow one single pattern.

Because of the presumed predictive character of variables related to industrialization, and their potential use for explaining differences in consumer behavior, we considered including two such variables in our calculations: Population density and Urbanization. To test the usefulness of the variables, calculations were done for data in the communication technology area and a few food categories. For our preliminary analysis data on infrastructure of the World Bank Report 1998/1999 were used and applied to two groups: 45 countries worldwide¹, 20 developed countries worldwide ("OECD 20") and "Europe 15". Nine independent variables were used. Income (INC) is GNP per capita at PPP, 1995. Product moment correlations and predictors derived from stepwise regression analysis are presented in table 3.8 and 3.9 Definitions of product data are the following.

1. Telephone main lines /1,000 population, 1996: "all telephone lines that connect a customer's equipment to the public switched telephone network".
2. Mobile phones /1,000 population, 1996: "refers to users of portable telephones subscribing to an automatic public mobile telephone service using cellular technology that provides access to the public switched telephone network, per thousand people".
3. Personal computers /1,000 population, 1996: "self-contained computers designed to be used by a single person, per thousand people".
4. Internet hosts /10,000 population, July 1997: "the number of computers/10,000 people, directly connected to the worldwide network of interconnected computer systems".

Population density (PDN) is defined as "midyear population divided by land area" (Technical Notes World Development Report 1998/99). Population density was expected to influence various habits and product ownership, such as housing, the use of cable vs satellite television and mobile phones. To test this, PDN was correlated with data of the communication technology area, which resulted in only one significant correlation between PDN and mobile phone ownership in Europe ($r = -.53^*$), see table 3.8. In the food category, significant correlations were found between population density and volume sales of milk ($r = -.62^{**}$) and soft drinks ($r = .59^{**}$) (table 3.10). However, in both examples, correlations with other variables were much more significant.

There is interdependence between population density and uncertainty avoidance. Worldwide and in the developed group of countries, PDN correlates significantly with UAI ($r = -.41^{***}$ and $r = -.40^*$). Because of the interdependence with other variables, the use of population density as an independent variable throughout the study was rejected.

¹ In our first experimental calculations we selected 45 countries. Later, Guatemala was dropped as too few consumption data are available for this country.

Only in a few, specific cases, it is used.

Table 3.8 Telephone main lines and mobile phones											
	CLI	INC	PDN	URB	PDI	IDV	MAS	UAI	LTO ¹⁾	Pred.	R ²
Telephone main lines /1,000 population											
45 ctr	.79***	.94***	.15	.50***	-.67***	.77***	-.10	-.27*	-.06	INC	.89
										CLI	.92
20 ctr	.51*	.76***	-.06	.33	-.47*	.61***	-.08	-.54**	-.16	INC	.57
										MAS (-)	.68
15 ctr	.58*	.64***	-.02	.41	-.38	.48	-.40	-.58*	-.69***	INC	.41
										MAS (-)	.68
Mobile phones /1,000 population											
45 ctr	.66***	.71***	.10	.34*	-.60***	.58***	-.22	-.43***	.02	INC	.50
										MAS (-)	.56
										UAI (-)	.61
20 ctr	.67***	.36	-.30	.11	-.50*	.25	-.31	-.54**	-.01	CLI	.45
15 ctr	.84***	.12	-.53*	.05	-.49*	.17	-.61**	-.60**	-.25	CLI	.70
										PDN (-)	.81
										UAI (-)	.73
1)LTO= Only Hofstede scores: 16 countries in worldwide data, EMS LTO data used for Europe15											
Sources: World Bank Report 1998/99 and Hofstede (1991)											

Table 3.9 Computers and the Internet											
	CLI	INC	PDN	URB	PDI	IDV	MAS	UAI	LTO ¹⁾	Pred.	R ²
Personal computers /1,000 population											
45 ctr	.65***	.88***	.15	.40***	-.45***	.76***	-.09	.45***	-.20	INC	.77
										UAI (-)	.83
										PDN (-)	.84
20 ctr	.49*	.81***	.03	.32	-.58***	.67***	-.05	.66***	-.32	INC	.66
										UAI (-)	.79
15 ctr	.48*	.76***	.12	.30	-.49*	.43	-.15	-.56*	-.50*	INC	.58
										UAI (-)	.73
Internet hosts/10,000 population											
45 ctr	.66***	.66***	.06	.30*	-.59***	.65***	-.25	-.48***	-.32	CLI	.44
										UAI (-)	.55
20 ctr	.76***	.43*	-.34	.12	-.51**	.44*	-.40*	-.57***	-.27	CLI	.58
15 ctr	.88***	.20	-.34	.07	-.45*	.18	-.56*	-.47*	-.36	CLI	.77
1)LTO= Only Hofstede scores: 16 countries in worldwide data, EMS LTO data used for Europe15											
Sources: World Bank Report 1998/99 and Hofstede (1991)											

Table 3.10: Product moment correlations food and drinks and 9 variables, Europe									
	CLI	INC	PDN	URB	PDI	IDV	MAS	UAI	LTO
Ice cream	.92***	.32	-.36	.25	-.57*	.45*	-.49*	-.76***	-.20
Milk	.68***	-.12	-.62**	-.09	-.40	.06	-.36	-.51*	-.21
Jams	.85***	.14	-.50*	.19	-.31	.09	-.71***	-.46*	-.17
Min water	-.64***	.20	.33	-.02	.56*	-.10	.57*	.73***	.05
Soft drink	-.53*	.40	.59**	.18	.18	.21	.78***	.38	.11
Fr juice	.62**	.49*	.25	.62**	-.47*	.42	-.39	-.48*	-.09

For *urbanization* measurements, "urban population as a percent of total population" is used. The World Bank annual reports define urban population as "the share of the population living in areas defined as urban in each country". The fact that each different country decides on the definition of "urban" doesn't make this variable a very consistent one. Yet, urbanization was expected to explain variance of housing, ownership of private gardens, pet ownership and food habits. The degree of urbanization changed during the past decades, but more in the developing world than in the developed world. In the tables 3.11 and 3.12 we show the relationships between urbanization, income, climate and population density in a thirty-year time period.

Table 3.11: Product moment correlations urbanization, wealth & climate for 46 countries				
	Income 1985	Income 1997	Climate	Population density
URB 1965	.52***		.34*	.35**
URB 1980	.51***		.39***	.32*
URB 1997		.59***	.34**	.30*

Table 3.12: Product moment correlations urbanization, wealth & climate for Europe 15				
	Income 1985	Income 1997	Climate	Population density
URB 1965	.17		.02	.63**
URB 1980	.35		-.67***	-.18
URB 1997		.16	-.51*	.05

Urbanization worldwide is linked with income, climate and population density. These relationships appear to be rather stable over time. For the 15 countries in Europe, we see different relationships: there is no significant correlation between urbanization and income. While in 1965 the most populated countries were also the most urbanized, this changed in the next 30 years. During those years, the countries in the South of Europe have urbanized more than the North. In the tables 3.1, 3.2, and 3.3 (page 87) we presented the interrelationship between urbanization, income and the cultural variables. Worldwide, urbanization correlates significantly with individualism, climate and GNP/capita. In Europe, the correlation with individualism is very significant. It supports the statement by Höllinger and Haller (1996) that the type of housing in Britain and in the countries of the New World (leading to high levels of urbanization) is an expression of the individualistic lifestyle in general. In our preliminary calculations we did not find meaningful significant correlations between urbanization and food consumption (only for fruit juice, but the equally significant correlation with climate indicates climate to be a better explaining variable). Neither did we find many relationships between urbanization and communication technology products. If significant correlations were found, other variables were better predictors. Because of the strong interdependence of urbanization and climate, income and individualism, urbanization is not used as independent variable in this study.

As a result of our preliminary calculations we decided to use six independent variables to reduce the problem of interdependence of variables. Throughout our study we use GNP/capita of the relevant year and the five cultural dimensions. Only in a few cases other variables are added. Even then, the six variables to be used are interdependent in some cases. For understanding the separate roles of each variable, we introduced the hierarchy concept.

3.4. HIERARCHIES AND PRODUCT CONSTELLATIONS

In this section the hierarchies of importance of variables are discussed and the necessity to add additional variables when products are related. Generally, the use of interdependent variables in regression analysis is to be avoided. Some of the six independent variables to be used are interdependent, but this varies by region. Because of the interdependence of some of the variables, we have to understand the hierarchy in which they operate. Also, in some cases, additional variables must be introduced because of relationships between or complementarity of products. We call these relationships product constellations.

3.4.1. Hierarchies

A few examples serve to explain the hierarchy concept. Data of two food categories and two beverages are used to explain the role and hierarchy of the different variables: Milk, Ice cream, Mineral water and Soft drinks (table 3.10, page 94). In many cases, the correlation between climate and consumption of food & beverages is significant. Apart from soft drinks, the correlation with climate is the most significant one of all variables. This relationship may in most cases be a historical one. Milk, for example, cannot be kept in warm climates. As a result, historically people have not consumed milk to the degree it was consumed in cold climates. Also, a fresh milk industry has not developed as compared with the countries with a cold climate. In the modern, industrialized world, it now is possible to also produce and keep fresh milk in warm climates. However, milk drinking has or has not become part of people's daily habits. In the collective memory of people, an attitude towards milk exists based on the belief that it cannot be trusted, because it is so perishable. This distrust in food has become a cultural factor, it is linked with uncertainty avoidance (see also chapter five page 172). It extends to ice cream and other milk related products. In cold climates, milk has been an energy provider, in particular combined with sweet food products such as jams and preserves. Related to this is the function of ice cream. It basically is sweet milk, and thus has an energy function and not a refreshment function.

If we add climate to our six variables in regression analysis (stepwise) for milk, climate is the only explaining variable, it explains 46 percent of variance (table 3.10, page 94). When climate is included in regression analysis for ice cream, climate also explains a large percent of variance (84 percent). If we exclude climate, uncertainty avoidance becomes the explaining variable, it explains 57 percent of variance. Mineral water can be seen as a thirst quencher and should logically be related to climate. It is indeed significantly correlated with climate ($r = -.64^{***}$), but other variables appear to be better predictors. In regression analysis, uncertainty avoidance explains 53 percent of variance ($r = .73^{***}$), income explains an additional 22 percent and masculinity explains another 9 percent of variance. Climate is correlated with soft drink consumption ($r = -.53^*$). In regression analysis including climate, masculinity explains 60 percent of variance, income explains an additional 13 percent and climate explains another 10 percent. In chapter four we will go into more detail explaining the relationships between cultural variables and the selected food and drink products. Here we conclude that for food and drink products there is likely to be a hierarchy in explaining variables. Historically climate influences variance in food consumption, but this influence is replaced by cultural variables. This sort of analysis will help understand unexpected functions of specific food products.

For other product categories we find different hierarchies. An example is the Internet. Data in table 3.9 (page 94) show that the main predictor for Internet penetration is climate. This asks for more analysis than the conclusion that in cold climates people will communicate more via the Internet than in warm climates. Climate only indirectly explains variance. In 1997, usage of Internet still largely depended on computer ownership. With computer ownership included as variable, worldwide the first predictor is personal computers/1,000 ($R^2 = .61$). The second predictor is MAS (-) ($R^2 = .66$). For the 20 high-income countries, when computer ownership is included, the predictor remains climate. Also for Europe 15, climate remains the predictor. Variance in ownership of personal computers in 1996 was mainly explained by income. In Europe income explains 58 percent of variance of computer ownership while uncertainty avoidance (weak), an indicator of innovativeness, explains an additional 15 percent of variance. From these relationships we conclude that the hierarchy for Internet penetration is from climate to wealth, to computer ownership to Internet penetration. The relationship climate-wealth is one that goes far back in history. Cold climate has contributed to smaller power distance and individualism (Hofstede 1991: 44, 76) and the combination has historically contributed to wealth. The relationship wealth-computers is more recent and the relationship computers-Internet is likely to be temporary. New means to access the Internet can replace the computer for this function.

3.4.2. Product constellations

In our example of the Internet hierarchy we found a strong relationship between computer ownership and Internet penetration. No Internet without computer (access to the Internet by mobile phone may change this link). We use the concept "product constellation" for this phenomenon.

Assael (1998: 446) mentions the concept of product constellations with respect to symbolic interactionism. This "recognizes the interaction between individuals and the symbols in their environment. It means that consumers buy products for their symbolic value in enhancing their self-concept. It also means that consumers tend to buy *product constellations*, that is, complementary groups of products that are related to each other because of their symbolic association." We extend this concept of product constellations to products that are related and complementary with respect to usage. Complementary products are items that go with other products: A silk necktie goes with an expensive suit (Keegan et al. 1992:521). A video recorder goes with a television set. Not only complementarity of pure usage is relevant, but also the fact that similar values or value domains explain variance of the items of one product constellation.

Mobile phones and main telephone lines belong to one product constellation (see table 3.8, page 94). Worldwide, penetration of mobile phones is linked with income, low masculinity and weak uncertainty avoidance, the combination of cultural dimensions reflecting innovativeness. When, additionally, the number of telephone main lines per 1,000 population is used as a variable, this becomes the main predictor. So a better explanation is that people who are already used to telephones, will also want to have a mobile phone. Worldwide, the first predictor is telephone lines ($R^2 = .57$); second predictor is uncertainty avoidance (weak) ($R^2 = .63$).

Some products or services belong to specific product constellations. To understand differences in consumption, ownership or usage, the related products must be taken into

account. Examples are adoption of mobile phones and usage of Internet. Both are linked with ownership of other modern technology. Differences in usage of existing infrastructure in the developed world may be a matter of culture. To find which cultural variables are the best predictors will be subject to our research.

3.5. DATA AND DATA SOURCES

Subject to our research are secondary data of consumption, ownership and usage of products and services and elements of consumer behavior including all sorts of values, attitudes and behavior, as described in our literature review in chapter two. We have searched the Public Domain for this type of data. Data are at the national, aggregate level from the following surveys and reports:

The Reader's Digest Surveys, studies of the lifestyles, consumer spending habits and attitudes of people of 17 European countries, published in 1970 and 1991. The data of the survey 1970 were the results of a probability sample representative of the national population aged 18 and over. Comparable sample surveys were conducted in 16 western European countries in early 1969. Approximately 24,000 personal interviews were involved. Eurodata 1991 was based on comparable sample surveys conducted in the early summer (May/June) of 1990. Approximately 22,500 personal interviews were involved. The study was commissioned by The Reader's Digest Association, Inc. in co-operation with its editions and offices in Europe. With the exception of Sweden it was conducted by the Gallup affiliated Companies and Institutes in Europe and was co-ordinated by Gallup, London. Probability samples were employed in each of the 17 countries, representative of the population aged 18 and over, living in private households. Reader's Digest Association Limited, London.

The European Media and Marketing Survey (EMS) Conducted by InterView International, Amsterdam, the Netherlands. A European "industry" survey, which collects three broad, types of data in seventeen European countries simultaneously: 1. advertising effect data based on corporate and brand management. 2. media data. 3. classification data, covering the respondent in both his business and personal environment. 1995, 1997 and 1999. The data are drawn from random digit dialing samples. The universe is main income earners in the top 20% of households by household income within each of the 16 countries surveyed. An estimated population of almost 40 million people (18 years or older) in the EU (excluding Greece) and Switzerland and Norway. EMS 1996 achieved 16,823 interviews and 8,221 self-completion questionnaires. EMS 1997 achieved 17,844 telephone interviews and 7,711 postal questionnaires. In total in 1996/1997 (report 1997) 34,667 telephone interviews and 15,940 postal questionnaires were completed. Reports are available to subscribers only.

Consumer Europe 1997, a compendium of pan-European market information on sales in value and volume of a large number of products, and Consumer International 1997, by Euromonitor PLC, London.

Eurobarometer, (1) Reports of 1990, 1993, 1995, 1997, 1998 and 1999, including data on attitudes in general and toward the European Union; (2) "Measuring the Information Society 1997"; (3) "The Young Europeans 1997"; (4) "Trend Variables 1974-1994", November 1994. The standard Eurobarometer reports cover the population of the respective nationalities of the European Union Member States, aged 15 years and over, resident in each of the Member States. The basic sample design applied in all Member States is a multi-stage, random (probability) one. The number of interviews for the Report 53 (October 2000) was 16,078. The results of Eurobarometer studies are reported

in the form of tables, datafiles and analyses. The results are published on the Internet server of the European Commission: <http://europa.eu.int/comm/dg10/epo>.

Eurostat Reports: (1) Annual Reports 1995, 1996, 1997, 1998/99, including demographic data and data on consumption. Data cover the member states of the European Union. (2) Social Indicators report 1960-1978 and (3) Family Budgets 1979 and 1988. Office for official publications of the European Communities, Luxembourg.

OECD Economic Surveys of various years, including socio-economic and demographic data and ownership of durables. OECD in Figures. 1996. Internet: www.oecd.org

World Bank Publications (1) World Development Reports of 1978 - 2000, including economic data and data on infrastructure; (2) World Tables, 1979/80 and 1995

UN Statistical Yearbooks of 1951, 1961, 1970, 1971, 1976, 1977 and 1997, including economic data and data on media and car ownership.

World Values Survey, data in: Inglehart et al. (1998) "Human values and beliefs": comparative data on values.

"National Cultures of the World, A Statistical Reference" Parker, P (1997): Data on climate.

Food for Thought, provided by Unilever Food and Beverages, Rotterdam. Data on food consumption in Europe. 1985, 1990, 1992, 1997.

M&M Europe: data on TV viewing and press readership worldwide, various years.

McCann-Erickson. The Insider's Report by Robert J. Coen. June 1997. Data on adspend and media. Internet: www.McCann.com

WARC Adspend databank: data on advertising expenditures

Starch INRA Hooper and IAA Worldwide Advertising Expenditures 1989 and 1993

Asian Marketing and Advertising, media data in Asia.

Data from the UN Statistical Yearbooks, from the World Bank Development Reports and from Eurostat are macro-level statistics. Data of these reports can be compared over time. Data of the two Reader's Digest surveys and EMS are based on consumer interviews, as are the Eurobarometer data and the World Values Survey. They measure what people say they do. The two Reader's Digest Surveys have asked similar questions in 1970 and 1991. EMS, partly sponsored by the Reader's Digest, includes some of the same questions, but the target is different: only the 20 percent high income groups of countries. As a result, not all data can be compared over time. Euromonitor measures sales. For most product categories sales volume data per capita (units, kilograms or liters) are published, in some cases only in value per capita. Because of price fluctuations across markets, the latter data cannot be compared across countries. Also, sales data of durables cannot be used, as only sales for one year are measured from which no ownership data can be derived. Another limitation of Euromonitor data is the fact that for some countries where no data are available, predictions are made based on sales in comparable countries. This is not a big problem when the countries compared are culturally similar, such as Switzerland and Austria. Yet, this practice is also followed for Belgium and the Netherlands, which are culturally different. This results in seemingly biased data for some product categories (e.g. cosmetics). Euromonitor data cannot be used for time series. A telephone conversation with Euromonitor's statistician (Ms G. Brown) on November 19, 1999, revealed that data earlier than 1992 are statistically not comparable with data after 1992 because of a change in measurement system. Another limitation to these data is in the high costs and unavailability in public libraries. More detailed information on data, such as sources, questions underlying the data, answer categories, are included by category in the relevant appendices.

3.6. CONCLUSIONS

This chapter reviews the literature with respect to cross cultural research and methodology. The methodological approaches to comparative research are reviewed. Levels of analysis and data types are described. The methodology selected for our study is described as well as the variables to be used and their interdependence. Several problems of analysis are discussed and sources used are listed.

Conclusions are the following: (1) Differences in consumption between countries can be explained and predicted by a number of independent variables. (2) Climate and income are powerful predictors for differences in consumption and product ownership worldwide, but cultural differences are more meaningful predictors. We decided to include income throughout our analysis. Climate is only included if it is assumed to have relevance, for example in the analysis of food products and beverages. (3) Urbanization and population density are too much interdependent with income and climate to serve as proper independent variables. They are not included in further analysis. (4) The variables selected for our study are income and Hofstede's five cultural variables. (5) Although the six variables are all relevant, sometimes an additional variable is even more relevant and is added to the equation.

Two concepts relevant for our study are described: Hierarchies of explaining variables and product constellations. Because of the interdependence of some of the variables, the hierarchy in which they operate must be understood to use the explanatory power of each variable for various product categories. Some products are related to each other with respect to usage and product values. We adapted the product constellation concept to understand the relationships.

Table 3.13 Data of nine independent variables for 44 countries

Country	INC	CLI	PDN	URB	PDI	IDV	MAS	UAI	LTO
Argentina (ARG)	8.57	1521	13	89	49	46	56	86	
Australia (AUL)	20.54	784	2	85	36	90	61	51	31
Austria (AUT)	27.98	2209	97	56	11	55	79	70	30
Belgium (BEL)	26.42	2601	310	97	65	75	54	94	25
Brazil (BRA)	4.72	256	19	80	69	38	49	76	65
Canada (CAN)	19.29	2809	3	77	39	80	52	48	23
Chile (CHL)	5.02	1296	19	84	63	23	28	86	
Colombia (COL)	2.28	36	35	74	67	13	64	80	
Costa Rica (COS)	2.64	100	66	50	35	15	21	86	
Denmark (DEN)	32.50	3134	123	85	18	74	16	23	46
Ecuador (ECA)	1.59	4	41	60	78	8	63	67	
El Salvador (SAL)	1.81	169	273	46	66	19	40	94	
Finland (FIN)	24.08	3844	17	64	33	63	26	59	41
France (FRA)	26.05	2116	106	75	68	71	43	86	39
Germany (GER)	28.26	2601	234	87	35	67	66	65	31
Great Britain (GRB)	20.71	2809	243	89	35	89	66	35	25
Greece (GRE)	12.01	1444	81	60	60	35	57	112	
India (IND)	0.39	441	313	27	77	48	56	40	61
Indonesia (IDO)	1.11	25	107	37	78	14	46	48	
Ireland (IRE)	18.28	2704	52	58	28	70	68	35	43
Israel (ISR)	15.81	1024	269	91	13	54	47	81	
Italy (ITA)	20.12	1764	195	67	50	76	70	75	34
Japan (JPN)	37.85	1369	333	78	54	46	95	92	80
Korea, Rep. (KOR)	10.55	1296	456	83	60	18	39	85	75
Malaysia (MAL)	4.68	16	61	55	104	26	50	36	
Mexico (MEX)	3.68	576	48	74	81	30	69	82	
Netherlands (NET)	25.82	2704	456	89	38	80	14	53	44
New Zealand (NZL)	16.48	1681	13	86	22	79	58	49	30
Norway (NOR)	36.09	4096	14	74	31	69	8	50	44
Pakistan (PAK)	0.49	841	169	35	55	14	50	70	0
Panama (PAN)	3.08	81	35	54	95	11	44	86	
Peru (PER)	2.46	100	19	72	64	16	42	87	
Philippines (PHI)	1.22	121	236	56	94	32	64	44	19
Portugal (POR)	10.45	1521	108	37	63	27	31	104	30
Singapore (SIN)	32.94	1	4896	100	74	20	48	8	48
South Africa (SAF)	3.40	900	30	50	49	65	63	49	
Spain (SPA)	14.51	1600	79	77	57	51	42	86	
Sweden (SWE)	26.22	3481	21	83	31	71	5	29	33
Switzerland (SWI)	44.32	2209	178	62	34	68	70	58	40
Thailand (THA)	2.80	169	116	21	64	20	34	64	56
Turkey (TUR)	3.13	1521	80	72	66	37	20	85	
USA (USA)	28.74	1936	29	77	40	91	62	46	29
Uruguay (URU)	6.02	1156	18	91	61	36	38	100	
Venezuela (VEN)	3.45	81	25	86	81	12	73	76	

Income = GNP/cap 1997; CLI = squared absolute latitude; PDN = population divided by land area; URB = urban population as % of total population.

Sources: INC, PDN, URB: World Development Report 1998/1999; CLI: Parker, 1997; PDI, IDV, MAS, UAI, LTO: Hofstede, G. 1991; LTO scores Countries in Europe: EMS97

CHAPTER 4

CONVERGENCE - DIVERGENCE

This chapter provides evidence of convergence, stability or divergence. Time-series data demonstrate that at macro level and at micro level, both convergence and divergence take place, but to varying degrees in different regions. In Europe, nearly as many cases of divergence as of convergence are found. If convergence takes place, it generally is a slow process. A general finding is that worldwide there is more heterogeneity than in Europe, although also in Europe for most aspects of consumption variance is found.

In literature we found that the convergence thesis generally is formulated at the macro level, and deals with aspects of national income, infrastructure and education levels of countries, facilitating possession of the communication means such as telephone lines, television sets, newspapers, computers and passenger cars. We also find convergence at the macro level. Penetration of the communication means of the “new economy” for example converges, but it is restricted to the developed world. What is more interesting to the players in the new economy than penetration of the means of the new economy is how they are used, what people do with them. We find that convergence of ownership of products does not necessarily mean convergence of usage. People may own modern technology, but they do not use it the same way across countries. We find that the new media, such as the Internet, - by many assumed to lead to convergence of habits and values - are generally adopted for doing the very things one is used to do. So, although convergence takes place at macro-level, substantial differences exist at micro-level. For example, the total number of cars per 1,000 population may converge, but the distribution across the population, numbers owned per household, or ownership of type of car diverge. Also behavior of the group of business people, part of the top 20 percent incomes of Europe, by theorists thought to be a homogeneous target group for certain luxury articles, varies considerably across countries.

Such findings are included in this chapter. Examples of socio-economic variables are described, and specific (product) areas are covered: communication and technology, the media, the structure of private consumption, food and beverages, consumer electronics, personal and household products, and finance. The findings of convergence or divergence are described by product category and relationships with national income and culture are presented. These are in more detail in the tables in the appendix. For readability sake we did not include all tables in the text of this chapter, so for detailed tables we refer to the appendix.

4.1. THE MACRO-LEVEL: SOCIO-ECONOMIC VARIABLES

Examples of socio-economic variables selected are those mentioned by the various authors suggesting convergence (Inkeles 1998; Inglehart 1997; Jain 1987; Kerr et al.

1998; Mühlbacher 1999; Peterson and Malhotra 2000): GNP per capita, urbanization, education and health. To this we add female share of labor force and housing because they are aspects of consumer behavior.

Convergence-divergence is measured for three groups of countries: worldwide 44, developed 26, and Europe 15. National income, measured by GNP per capita, is compared from 1960 to 1998 (data UN Statistical Yearbooks and World Bank Development Reports). Urbanization is compared from 1965 to 1995 (data World Bank Development Reports). Data on education are for the period 1960-1996 (data World Bank Development Reports). Other demographic data are on housing and working women, drawn from various reports, such as the Eurostat Year Books and the Reader's Digest Reports.

Table 4.1. presents the percents mean convergence per year for a number of socio-economic variables per group of countries.

Table 4.1. Mean convergence per year (%) for selected socio-economic variables			
	Worldwide 44	Developed 26	Europe 15
GNP per capita	0	.73	.96
Urbanization	.98	1.15	1.04
Secondary education	1.72	1.43	2.27
Tertiary education	1.05	.99	1.00
Female share of labor force	1.79	1.79	1.87

Our findings show that at macro-level convergence takes place in each of the country groups, except for income worldwide. The pace of convergence varies between regions while for most macro variables, the fastest convergence has taken place in Europe. Fastest convergence is of secondary education in Europe. Worldwide education converges faster than in the 26 developed countries.

4.1.1. National income

Of the countries in our analysis, in 1998 the country with the highest GNP per capita was Switzerland with US\$ 40,080 and the lowest was India with US\$ 430. In 1960 this was US\$ 1,560 and US\$ 73. The gap has not narrowed. Worldwide there is no convergence of GNP per capita, but in the developed world, incomes are converging, both among industrialized countries worldwide and in Europe (table A1, page 235). This is consistent with findings by Sarkar (1999:504) that economies of the developed world are converging, while in the developing areas incomes do not converge, or are even diverging.

For 44 countries worldwide, the coefficient of variation is .83 in 1960 and .84 in 1998, so the differences are more or less stable. For the group of 26 developed countries worldwide, the coefficient of variation is .58 in 1960 and .42 in 1998. Mean convergence is .73 percent per year. For Europe 15, the coefficient of variation is .41 in 1960 and .30 in 1998. Mean convergence is .96 percent per year. Although convergence has taken place, and mostly in Europe, there still are differences and these differences are related to Hofstede's cultural dimensions.

In the group worldwide 44 (table A2, page 235) the differences in income are consistently, negatively correlated with power distance (1960: $r = -.59^{***}$; 1998: $r = -$

.62***), positively with individualism (1960: $r = .77^{***}$; 1998: $r = .72^{***}$), and negatively with uncertainty avoidance (1960: $r = -.35^*$; 1998: $r = -.33^*$). This is the configuration of dimensions of economic development. In the developed world we find similar, but weaker correlations (table A3, page 236). In Europe (table A4), the correlations have become less significant as the region has become increasingly homogeneous with respect to national income. The correlations with individualism (1960: $r = .59^*$; 1998: $r = .45^*$) and uncertainty avoidance (1960: $r = -.51^*$; 1998: $r = -.44^{ns}$) become less significant over time. In the new millennium, Europe is an area that with respect to income can be viewed as increasingly homogeneous.

4.1.2. Urbanization

With respect to urbanization, countries converge faster than with respect to income and only worldwide urbanization is related to income. Between 1965 and 1995 (Table A5, page 236) the coefficients of variation show a mean decrease per year of .98 percent for the group worldwide 44, 1.15 percent for developed 26, and 1.04 percent for Europe. For each of our groups of countries, the most significant correlations are with different variables (table A6, page 237). Worldwide, between 40 percent (in 1970) and 19 percent (in 1995) of variance of urbanization is explained by GNP per capita. In the group developed 26, between 1965 and 1980, variance is explained by uncertainty avoidance. In 1995, urbanization is not linked with income or culture anymore. In Europe, individualism explains between 52 and 63 percent of variance between 1965 and 1995. Thus, in Europe, the economically homogeneous area, the degree of urbanization can only be explained by culture.

4.1.3. Education

With respect to secondary education, worldwide (44 countries), convergence is substantial until 1980, but after that year it stops (table A7, page 237). There still are differences between countries, and these remain stable. A threshold of convergence has been reached at a coefficient of variation of .35. Between 1960 and 1980 mean convergence per year is 1.72 percent.

In the group developed 26 mean convergence per year between 1960 and 1980 is lower: 1.43 percent per year. For this group, the coefficient of variation is .35 in 1960 and .18 in 1985. It remains at that level until 1996.

For Europe 15 convergence continues and the mean convergence per year for the period 1960-1996 is 2.27 percent. The coefficient of variation is .33 in 1960 and .06 in 1996. In the developed areas, as compared with worldwide data, convergence is persistent and Europe is a truly homogeneous area.

Convergence also takes place with respect to tertiary education (table A7, page 237). For the group worldwide 44, between 1965 and 1993, mean convergence per year is 1.05 percent; for the group developed 26 it is .99 percent; for Europe 15, mean convergence per year is one percent.

In the three groups of countries, GNP per capita consistently explains variance of education levels (tables A8, A9 and A10, page 238-239). Wealth is the driver for education. Only in Europe the relationship disappears after 1990. This may imply that in the developed world, increased wealth will not necessarily lead to better levels of education in all nations.

4.1.4. Health

We had wished to analyse worldwide data on health. Examples of data available are numbers of doctors or nurses per population, but data are not consistent over time. Data definitions change from “population per physician” to “physicians per 1,000 population” and to “percent of total population with access to health care” or “health care expenditure”, including both private and government expenditure. Thus comparison over time is difficult. If we take the number of doctors per 1,000 people from the OECD Economic Surveys (21 developed countries), the coefficient of variation is increasing, rather than decreasing over time (in 1969 .25 and in 1995 .33), which suggests divergence, with a mean divergence of .93 percent per year (table A11, page 239).

In the section “structure of consumption”, in this chapter (pages 123-129) we present data on the percent of total consumption spent on health care from various sources. For the three groups of countries, data from World Bank reports show divergence between 1980 and 1998 (table A57, page 258). In Europe, however, according to data from Eurostat, between 1986 and 1996, convergence takes place at .98 percent per year (table A64, page 262)¹. But data from the UN Statistical Yearbooks for a group of 33 countries worldwide show divergence. For a group of 21 countries worldwide a longer time span is available, from 1950 to 1994. In this time span the mean divergence is .73 percent per year. In a group of 16 developed countries worldwide, between 1950 and 1994, the mean divergence per year is .77 percent (tables A59-A60, page 259). In this group, eleven countries in Europe are included. Between 1950 and 1997 for these eleven countries, the mean divergence is .72 percent per year.

Other comparative data on health expenditure in Europe, published by Eurostat are “Total health expenditure as a proportion of GNP”. Data for the years 1986-1996 correlate with income only, until 1993 (r varies between .58* and .61*). Over time the positive relationship with uncertainty avoidance becomes more significant. In 1995 and 1996, there is no significant correlation between income and medical care expenditures as a percent of GNP, but there are significant positive correlations with UAI (1995: $r = .47^*$ and 1996: $r = .47^*$). The coefficients of variation are stable during the 10 years, they vary between .13 and .11, but the differences between countries represent substantial differences in expenditures. While in 1996 in France, the percent of GNP spent on health care is 9.6 and in Portugal 8.2, in the UK it is 6.9 and in Denmark 6.4 percent.

The various data provide evidence that - in contrast to the other macro variables, expenditures on medical care have not converged with converging incomes. The

¹ The discrepancy may be due to different measurements. World bank and UN data are of the percent expenditure on medical care of total consumption and include private and government health expenditures, such as those provided by national health plans, while Eurostat includes only private expenditures. For comparison the World bank and UN data give the better picture.

differences can only be explained by culture. In the time period of 47 years between 42 percent and 57 percent of variance is explained by uncertainty avoidance. Expenditure on medical care is related to uncertainty avoidance, and so is people's perceived health. Perception of health, and how this relates to consumption and behavior is further analysed in chapter five (page 175).

4.1.5. Housing

The type of house people live in and ownership of private gardens, influence sales of a number of products. If, for example, in a country people have relatively few private gardens, penetration of lawn mowers will be low, but also other habits will vary. The differences between countries with respect to type of house people live in, and private gardens owned, are relatively stable (table A12, page 240). The coefficient of variation for living in a one family house (in 13 countries in Europe) are small (in 1981 .04 and in 1991 .06), the coefficients of variation for living in a more family house remain large (1981: .80; 1991: .84). The latter can be explained by the small differences in individualism in this group of 13 countries where only a few countries can be defined as collectivist. Homogeneity with respect to people living in one family houses does not mean that the type of houses are similar. EMS99 data show that in Europe, variance between countries with respect to type of house is large. In particular large differences are found between countries with respect to people living in semi-detached houses and living in apartments. According to Eurostat, in 1995, in Spain 63 percent, and in Italy 61 percent of the population lived in flats as compared to 3 percent in Ireland, 10 percent in the UK and 14 percent in Belgium.

Living in a more family house is a characteristic of collectivist cultures; there are significant negative correlations with individualism, but the correlations become less significant over time (1981: $r = -.88^{***}$; 1991: $r = -.53^*$) (table A13, page 240). Living in an apartment is the urbanized alternative of the more family house. In 1999 individualism explains 38 percent of variance of living in an apartment.

The differences in ownership of private gardens are stable. Data that can be compared are of the Reader's Digest surveys of 1970 and 1991. Coefficients of variation for ownership of private gardens are .46 in 1970 and .43 in 1991 (table A12, page 240). In Europe, ownership of private gardens correlates significantly with individualism (1970: $r = .74^{***}$; 1991: $r = .72^{***}$). We have not found more recent comparable data. EMS99 data on living in detached and semi-detached houses may provide a substitute: From the combined data we calculate a coefficient of variation of .26. The combined data of detached/semi-detached house also correlate with individualism ($r = .45^*$). However, a detached/semi-detached house in a collectivist culture does not necessarily have a private garden, in the sense of a private garden in individualist cultures. In Spain, for example, the backyard of a one family house often is not used as garden, but for storing bicycles and the like. If there are gardens, many are communal gardens, not private. If we look at the percent living in an apartment (which definitely does not connect to a garden) we see a negative correlation with individualism ($r = -.62^{**}$), which may be evidence of the continuity of the relationship between individualism and ownership of private gardens. Having a private garden is part of individualist societies: In collectivist cultures people get together in public places such as parks and bars and keep the home for the family only. This is confirmed by comparative data on number of cafés per million population (data Hotrec 1997, in: Sociaal Cultureel Planbureau 2000),

that show a negative correlation with individualism ($r = -.55^*$).

4.1.6. Women: Work and Education

“Housewives” used to be a category to be targeted by companies because of the sole involvement in the household by a majority of women. In the developed world, from the economic point of view, women could afford to stay home and dedicate themselves solely to doing household chores and raising children. In the developing world, working was a necessity for women and it was facilitated by the existence of an extended family where the children were taken care of. In the developed economies, increased education levels made women look for work outside the home. In the old sense, the housewife does not exist anymore. Increasingly, women have entered the labor force. The percent working women (“female share of labor force”, data World Bank) of countries has converged between 1970 and 1995. Mean convergence per year between 1970 and 1998 is 1.79 percent for the group worldwide 44; in the group developed 26, it also is 1.79 percent; in Europe, mean convergence per year is highest: 1.87 percent per year. In the group worldwide 44, the coefficient of variation decreases from .28 in 1970 to .14 in 1998. In the group developed 26 the decrease is from .20 in 1970 to .10 in 1998. In Europe the decrease is from .21 in 1970 to .10 in 1998 (table A14, page 240). It looks like a ceiling has been reached with a maximum homogeneity in Europe.

If we look at part-time work by women in Europe, the differences are larger. In 1995, the coefficient of variation is .47 and the mean convergence per year between 1986 and 1995 is 1.79 percent (table A16, page 241). The differences with respect to men working part-time are also large, but decreasing. The coefficient of variation is .74 in 1986 and .56 in 1995. Mean convergence per year is 2.7 percent. Convergence of women’s participation in the labor force may be partly due to convergence of women’s education. The differences between the countries of Europe with respect to the percent women in higher education are small. The coefficient of variation is .12 in 1986 and only .10 in 1995 (table A16, page 241).

Worldwide, in the developed world, and in Europe, until 1998, variance of women’s share of the labor force, is explained by income (table A15, page 241). In order to become wealthy, women have to work. In turn, wealth leads to higher levels of education that lead to a greater drive for women to enter the labor force. With the turn from industrialism to post-industrialism predictors have become low masculinity and individualism in the industrialized world. In Europe equality between men and women with respect to part-time work and degree of higher education is a characteristic of feminine cultures. In general, working part-time is still a luxury for women in Europe: GNP per capita explains variance of the degree of part-time work, but between 1986 and 1995 the percent variance explained decreases (table A17, page 241). Table 4.2 illustrates the change.

Working part-time by men appears to be part of the quality of life: Variance is explained by low masculinity (1986: $R^2 = .57$; 1995: $R^2 = .40$). In 1996, in the Netherlands 17 percent of working males worked part-time and in Denmark 10.8 percent, as compared to 8.1 percent in the UK and 3.1 percent in Italy.

Table 4.2. Europe: Part-time work: males and females

Year	% women working part-time		% men working part-time			
	Predictor	R ²	Predictor 1	R ²	Predictor 2	R ²
1986	INC	.50	MAS (-)	.57	IDV	.71
1991	INC	.40	MAS (-)	.40		
1995	INC	.39	MAS (-)	.40	UAI (-)	.58

Source: Eurostat Annual Yearbooks

Low masculinity also explains variance of the percent women in higher education between 1986 and 1991 (1986: $R^2 = .31$; 1991: $R^2 = .33$). In 1995, GNP per capita explains variance, but negatively ($R^2 = .36$). Obviously, in the lower income countries in Europe, women have started to make up for their lag in higher education (table A17, page 241).

So, initially, the participation of women in the labor force is an economic necessity. With increased wealth, it becomes a luxury and finally, in the postindustrial world, it becomes a spiritual and economic necessity, part of the quality of life. The predictor now is low masculinity. It looks like the feminine cultures have a competitive advantage in the post-industrial world, because of the skill to extend their quality of life values to the work place, instead of viewing the two as mutually exclusive.

4.2. COMMUNICATION AND TECHNOLOGY

In cross-cultural research the variables used as a developmental characteristic of countries tend to be degree of penetration of means of communication and technology, next to GNP per capita, although they are strongly related (e.g. Craig et al. 1996; Helsen et al 1993; Jaffe 1974; Liander et al. 1967; McLauchlin 1993; Oyewole 1998; Ramond 1973; Sethi 1971; Sethi and Curry 1973; Sheth and Lutz 1973; Sriram and Gopalakrishna 1991; Szymanski et al. 1993).

A country's infrastructure for transport, technology and communication depends on a country's wealth. If there is no infrastructure, e.g. roads, cable, telephone infrastructure, if there is no penetration of communication means such as television sets and newspapers, if there is little travel and communication, distribution of knowledge is limited. So it is fair to assume that the number of telephone main lines per 1,000 population, the number of cars, but also numbers of television sets and newspapers per 1,000 population, are linked with national income. To a certain point. If eventually every family is able to own one television set and one car, the question is what the choices will be when one becomes richer. At the macro-level, for four product categories (telephone main lines, passenger cars, television sets and newspapers per 1,000 population), for a thirty-year period, we calculated convergence, for the groups worldwide 44, Developed 26 and for Europe 15. We also analyse the relationships between ownership of these products and income and the cultural variables, at macro level and at micro level.

Fastest convergence in Europe is for ownership of television sets, while circulation of newspapers slightly diverges. In most cases, if convergence takes place, it is a slow process and convergence is strongest for product categories that are related to economic development.

Table 4.3. Convergence or divergence per year (%), selected variables at macro level

	Worldwide 44	Developed 26/20	Europe 15
Telephone main lines/1,000 population	1.34	1.98	2.19
Passenger cars per 1,000 population	1.17	1.71	1.83
Television sets per 1,000 population	1.81	1.65	3.18
Newspapers per 1,000 population	.29	.23	- .08

4.2.1. Telephone main lines

In 1966, in Spain, there were 96 telephones per 1,000 people and in 1997 there were 403 telephone main lines per 1,000 people. In the Netherlands the numbers increased from 200 per 1,000 people to 564 per 1,000 and in Switzerland, the richest country of Europe, the numbers increased from 394 per 1,000 people in 1966 to 661 in 1997. In Bolivia there were only 7 telephones per 1,000 people in 1966, which increased to 69 per 1,000 people in 1997. With converging incomes, infrastructure also converges, which is reflected by the convergence of countries with respect to telephone main lines in all three country groups between 1966 and 1998 (table A18, page 242). During this time-span, national income explains between 90 and 56 percent of variance. In 1980, in all three groups, culture emerges as an explaining variable next to income. In the two groups worldwide individualism is a second predictor. In Europe, in 1980 weak uncertainty avoidance is the second predictor and from 1990 onwards femininity is an additional explaining variable. In the feminine cultures, a good infrastructure is viewed as important for the quality of life. Both uncertainty avoidance and low masculinity play a role in understanding differences in use of telephone lines and new developments in the category (table A19, page 242). Table 4.4. illustrates the increasing influence of culture over time.

Table 4.4. Telephone main lines per 1,000 inhabitants: Growing influence of culture

Year	Predictor 1	R ²	Predictor 2	R ²	Predictor 3	R ²
<u>Worldwide 44</u>						
1970	INC	.90				
1980	INC	.85	IDV	.88		
1990	INC	.79	IDV	.83		
1996	INC	.78	IDV	.83	MAS (-)	.85
1998	INC	.85	MAS (-)	.87	IDV	.89
<u>Developed 26</u>						
1970	INC	.83				
1980	INC	.69	IDV	.75		
1990	INC	.72	MAS (-)	.79		
1996	INC	.47	IDV	.59	MAS (-)	.68
1998	INC	.63	MAS (-)	.72	IDV	.76
<u>Europe 15</u>						
1970	INC	.74				
1980	INC	.72	UAI (-)	.83		
1990	INC	.73	MAS (-)	.85		
1996	INC	.56	MAS (-)	.71		
1998	INC	.72	MAS (-)	.87		

Analysis of EMS99 data makes us conclude that in line with telephone main lines, also mobile phone ownership is a matter of quality of life (table A20, page 243). In Europe low masculinity explains 42 percent of variance. There is a significant correlation between penetration of telephone main lines and mobile phones (worldwide 44: $r = .78^{***}$; developed 26: $r = .49^*$; Europe: $r = .48^*$, see table A91, page 275). This contradicts the general expectation that mobile phones will penetrate faster in countries where the infrastructure of main telephone lines is weak. In contrast: New technology makes people do more of what they used to do.

How people use the phone also varies across cultures. From EMS data we find that Europe is a homogeneous area with respect to telephone penetration ($CV = .03$), but there is still heterogeneity with respect to ownership of two or three telephone lines (CV s are .38 and .63). The degree to which the phone is used, for example for international telephone calls, varies and the differences correlate negatively with uncertainty avoidance. Variance between countries with respect to the total number of international calls, as reported in EMS99, is explained by weak uncertainty avoidance ($R^2 = .40$). GNP per capita explains an additional 18 percent.

Analysis of the number of telephones owned in the EMS99 population of top 20 income households in Europe shows that having "only one" telephone correlates negatively with income, while ownership of two or three telephones correlates positively with income. Income is the predictor.

4.2.2. Passenger cars

In 1960 the numbers of passenger cars per 1,000 population varied from 344 in the United States to 160 in Sweden, 45 in the Netherlands, 9 in Spain and 5 in Japan. In 1997 there were 489¹ passenger cars per 1,000 people in the United States, 418 in Sweden, 372 in the Netherlands, 389 in Spain and 373 in Japan.

For the group of 44 countries worldwide the coefficient of variation for passenger cars per 1,000 population decreased from 1.39 in 1960 to .79 in 1997. Mean convergence is 1.17 percent per year. For the group of 26 developed countries worldwide the coefficient of variation decreased from 1.01 in 1960 to .37 in 1997. Mean convergence is 1.71 percent per year. For Europe 15 the coefficient of variation decreased from 56 percent in 1960 to 18 percent in 1997. Mean convergence per year is 1.83 percent (table A21, page 243).

Although in Europe convergence has taken place with respect to car ownership at national level, in 1997 there still are differences, but they are small and are not related to income or culture. Worldwide, GNP per capita is the driver of car ownership (table A22, page 243). In the developed world, the influence of income decreases (1960: $r = .90^{***}$; 1997: $r = .52^{***}$). In Europe a significant relationship with income disappears altogether after 1990 (1960: $r = .89^{***}$, 1997: $r = .40$). Between 1980 and 1997, individualism explains between 71% and 80% of variance worldwide and in the group developed 26 between 62% and 76% (table A22, page 243). In Europe the relationship with individualism disappears in 1990 (1960: $r = .54^*$; 1997: $r = .26$). In 1990, the correlation

¹ This number seems low, possibly because many utility cars may not be registered as passenger cars.

with uncertainty avoidance turns from negative (innovatorship) to positive. While the adoption of new technology is first driven by weak uncertainty avoidance, later different cultural loadings become manifest. With respect to cars, it is high masculinity, combined with strong uncertainty avoidance.

When ownership of a passenger car changes from a luxury to a commodity, its cultural loading becomes more manifest. This is demonstrated by the differences at micro-level in Europe. While at macro-level (cars per 1,000 population), Europe has become more or less homogeneous, the same region appears to be quite heterogeneous with respect to data at micro level, such as the number of cars owned by families, the type of car owned, preference for new versus second hand cars, and attitudes and behavior with respect to cars, such as interest in the technological aspects of cars and buying decision making. Of the respondents of EMS 1999, 12.4 percent of the Italians and 8.5 percent of the British say they own three cars, as compared to 2.3 percent of the Danes, 2 percent of the Finns and 2.4 percent of the Dutch.

The coefficients of variation for ownership of one car, calculated from data of the Reader's Digest surveys, have become smaller between 1970 and 1991 (1970 .24 and 1991 .14) (table A23, page 244). Mean convergence per year between 1970 and 1991 is 1.98 percent. Mean convergence per year of ownership of two cars in the same time-span is smaller: 1.04 percent. Data for ownership of three or more cars are available from EMS, representing the top 20 percent income levels. Among these groups, between 1995 and 1999, ownership of one car and three cars diverge, while the differences between countries with respect to ownership of two cars are stable (table A23). Ownership of four cars converges, but differences remain: In 1999, the coefficient of variation is .55. Table 4.5 shows the means of convergence and divergence per year for passenger cars at micro level for the period 1970-1991 and 1995-1999. The changes are explained by correlation and regression analysis with income and the cultural variables (tables A25 and A26, page 245).

Table 4.5. Convergence and divergence passenger cars at micro level, Europe 15				
	1970-1991		1995-1999	
	Convergence (%)	Divergence (%)	Convergence (%)	Divergence (%)
One car	1.98			2.00
Two cars	1.04		0	
Three cars				1.74
Four cars			2.54	
Saloon type		2.52	8.37	
Station wagon	1.00			0.74
Sports car		1.84	3.72	
Main car bought new	0.99	0.10		
Second car bought new			0	
No knowledge engine size	0.33		0	
Partner involved			0	

In 1970, the predictor for ownership of one car and two cars is GNP per capita ($R^2 = .80$ and $R^2 = .32$). But this relationship is only temporary. When cars are introduced, income and individualism are the major drivers. Initially, mainly people in the richer countries can afford to own a car. The more developed a country becomes, the more cars per 1,000 population. In 1994 there is a turning point: Income does not influence car ownership anymore. The relationship between individualism and car ownership becomes weaker over time. The negative relationship with uncertainty avoidance is stable over

time (1970: $r = -.63^{**}$; 1991: $r = -.45^{*}$; 1999: $r = -.50^{*}$). Weak uncertainty avoidance goes with innovativeness, the inclination to embrace new products. Cars at that time were a relatively new phenomenon. Eventually, when everybody has a car, economic influences disappear for car ownership in general, but cultural influences become more manifest. At the micro level these are the predictors for differences in preferences and usage of cars.

4.2.2.1. Number of cars owned

When in all countries most families own one or more cars, cultural values explain the differences in numbers of cars owned. In the masculine cultures, for example Italy, Germany and the UK, there are more families with two cars than in the feminine cultures such as the Netherlands and the Scandinavian countries. It may well be that in such cultures people think one car is enough, although one can afford to own two. Two calculations from EMS data give evidence of the negative correlation between ownership of “only” one car and masculinity. The percent answers “one car owned” (1995: $r = -.52^{*}$; 1997: $r = -.63^{**}$; 1999: $r = -.61^{**}$), and the percent answers “no second car” to the question which type of second car owned in 1997 ($r = -.63^{**}$), 40 percent of variance is explained by femininity and an additional 35 percent by small power distance (table A24, page 244). This is the configuration of dimensions related to low status needs. Another explanation may be that families are smaller or there may be more one person households. This appears not to be of influence. The correlation between the percent one person households and ownership of (only) one car (EMS99) is negative ($-.63^{**}$). According to the positive relationship with both masculinity and power distance, ownership of more than one car is a matter of status. This is confirmed by the relationship with masculinity. There is a significant correlation between masculinity and new car registrations, as reported by Euromonitor ($r = .74^{***}$), 55 percent of variance is explained by masculinity (table A24, page 244).

Another striking difference between ownership of one car versus two or three cars is the change of direction of the correlation with uncertainty avoidance. While ownership of one car is negatively correlated with uncertainty avoidance (1997: $r = -.50^{*}$), ownership of three cars is positively correlated with uncertainty avoidance (1997: $r = .63^{**}$). Surprisingly, ownership of four cars is negatively correlated with income (1997: $r = -.61^{**}$). This may be explained by the fact that the target of EMS is the top 20 income group of countries. In the countries with a lower GNP per capita, income differences may be larger and the wealthy group of people is likely to be wealthier than the same group in countries of higher GNP per capita. This is explained by the correlation between GNP per capita and low power distance, making cultures more egalitarian.

4.2.2.2. Type of car owned

Ownership of the saloon type car diverges between 1970 and 1991. The mean divergence per year is 2.52 percent. Also sports car ownership diverges between 1970 and 1991. The coefficient of variation is .59 in 1970 and .96 in 1991 (table A23, page 244). Mean divergence per year is 1.84 percent. For the period 1995-1999 the coefficients of variation derived from the EMS data show more convergence than divergence for the different car types. Ownership of the saloon type converges at 8.37

percent per year, ownership of the station wagon type diverges slightly at .74 percent per year, and ownership of sports cars converges at 3.72 percent per year. Ownership of the hatchback type converges at 4.65 percent per year. Table A27, (page 246) shows the results of correlation and regression analysis of types of cars, income and the cultural variables. No clear pattern can be derived from the results, except the relationship between national wealth and ownership of the modern station wagon/estate car.

4.2.2.3. Preference of new cars over second hand cars

A difference that regardless of income has been consistent during the past 30 years, is whether people prefer to buy their car new or second hand. Of the respondents of EMS 1999, 42.4 percent of the Italians, 33.8 percent of the Spanish and 36.9 percent of the Belgians report having bought their car new, as compared with only 7.5 percent of the Swedes and 13.6 percent of the Dutch. Consistently, the cultures of strong uncertainty avoidance prefer to buy their car new, while members of weak uncertainty avoidance cultures buy second hand cars.

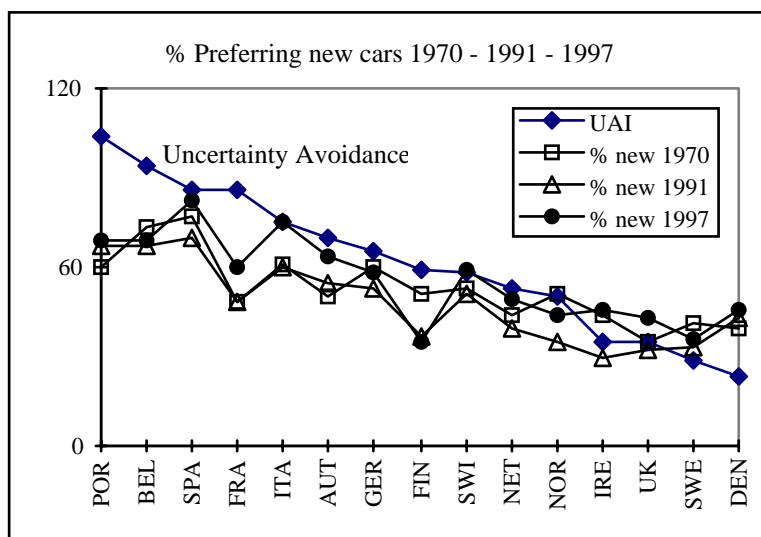


Figure 4.1. Preference of new cars, Europe 15. Sources: Reader's Digest and EMS

Between 1970 and 1991, preference of new cars diverges. The coefficient of variation is .23 in 1970 and .29 in 1991. Data from EMS confirm the pattern. The coefficients of variation are stable between 1995 and 1999, both for the main car bought new and the second car bought new. And the correlations with uncertainty avoidance have remained the same. For the main car bought new, the percents variance explained by uncertainty avoidance are 63 percent in 1970 and 73 percent in 1991. In 1995 66 percent is explained by uncertainty avoidance, in 1997 63 percent and in 1999 53 percent (table A26, page 245). Figure 4.1 is a visual correlation of new car preference against uncertainty avoidance and demonstrates the stable pattern of this relationship. In this figure the X-axis shows the countries, the Y-axis the position of countries on the uncertainty avoidance index.

4.2.2.4. Attitudes to technology and buying influence

To complete the evidence of stability in attitudes to cars, two findings are described with respect to attitudes to technology and influence on buying cars: knowledge of the engine size of cars and involvement of the partner in choice of model and make of car.

Both the Reader's Digest surveys and EMS ask questions about the engine size of the car owned by respondents. The answers "don't know" can be viewed as a measurement of little interest in the engine size. The differences between countries to this respect are large. Of the respondents of EMS 1999, 30.6 percent of the Swedes don't know the engine size of their car as compared with 2.6 percent of the British. The coefficients of variation between countries with respect to "no knowledge of the engine size of the main car" are .87 in 1970, .81 in 1991, .80 in 1995, .87 in 1997 and .80 in 1999. From 1995 onwards there are significant, negative correlations between "no knowledge of engine size" and masculinity (1995: $r = -.51^*$; 1997: $r = -.57^*$; 1999: $r = -.50^*$). In the feminine cultures there is less interest in technology than in the masculine cultures (table A26, page 245).

Also in the feminine cultures the decision-making process for car buying is different from the masculine cultures. The EMS surveys ask who was involved in choosing the make and model to buy of the main and second car. Answer categories are "you", "your partner", "another household member", "your employer/business partner", "someone else". The answers "your partner" correlate negatively with masculinity. The coefficients of variation are stable in the period 1995-1999 (.26). The three years show significant, negative correlations between influence of the partner in the choice of car and masculinity, and variance is explained by low masculinity (1995: $R^2 = .50$; 1997: $R^2 = .37$; 1999: $R^2 = .35$) (table A26, page 245).

4.2.3. Television

In 1960 Spain had 8 TV sets and 90 radio receivers per 1,000 population. Portugal had 5 TV sets and 95 radios. In 1995, both in Spain and Portugal the number of TV sets exceeded the number of radios. In 1960 Sweden had 156 TV sets and 367 radios per 1,000 population and Germany 83 TV sets and 287 radios. In 1995, both in Sweden and Germany the number of radios was nearly double the number of TV sets. In Sweden, the number of radios per 1,000 population was 882 and the number of TV sets per 1,000 population was 478. In Germany the number of radios was 944 against 564 TV sets. In Europe, countries had converged with respect to ownership of TV sets and diverged with respect to ownership of radio receivers.

The number of television sets per 1,000 population has converged both worldwide and in the developed world (table A28, page 246). For 44 countries worldwide the coefficient of variation decreased from 1.51 in 1960 to .50 in 1998. For the group of 26 developed countries worldwide the coefficient of variation decreased from 1.21 in 1960 to .28 in 1998. For Europe 15 the coefficient of variation decreased from 1.00 in 1960 to .11 in 1998. Worldwide mean convergence per year is 1.76 percent. In the group developed 26 mean convergence per year is 2.02 percent and in Europe it is 2.43 percent. With a coefficient of variation of only .11, Europe can be considered to be homogenous with respect to television sets per 1,000 inhabitants. This homogeneity at macro level

masks heterogeneity at micro level, where with respect to numbers of televisions in households, type of television set or viewing time, there is much more variance.

EMS provides data on number of television sets and wide screen TV sets owned. The data concern the wealthy 20 percent of populations in Europe but may be indicative for national differences. In 1999 the coefficient of variation for ownership of one TV set is .33; for two TV sets it is .18; for three TV sets it is .43. The coefficient of variation for wide screen TV is .42 (table A30, page 247). Income and culture explain variance.

4.2.3.1. Income and culture to explain variance

First the influence of income and culture data is analysed at macro level: The number of television sets per 1,000 population (table A29, page 247). Both in the group worldwide 44 and developed 26 the number of television sets per 1,000 population is related to income. In 1960 this relationship is not as strong as after 1970. In the group worldwide 44 between 1970 and 1998 a large percent of variance is explained by GNP per capita (1970: $R^2 = .88$; 1998: $R^2 = .59$). The second predictor is individualism, which in 1970 adds only 2% to the percent variance explained, but this increases over time. In 1998 also uncertainty avoidance adds to the explanation. In the group Developed 26 the relationship with GNP per capita is weaker, but the influence of individualism remains strong. In 1998 the correlation between TV sets per 1,000 population and GNP per capita is less significant ($r = .57^{***}$) than the correlation with individualism ($r = .67^{***}$). Individualism is the only predictor and explains nearly half of variance ($R^2 = .45$). In Europe, the more homogeneous region with respect to individualism, GNP per capita is the variable that explains the differences, but the relationship disappears in 1994. After that year there are no more relationships with income or culture.

From the relationships at macro level we conclude that a television set first is an object for the rich world. When eventually, everyone can afford to own a TV set, no more relationships with either income or culture are found. Television has become an integral part of life everywhere. But it has not brought the predicted global village (McLuhan 1964) and usage has not homogenized. The frequency of watching, and the programs are culture bound. The role of television in social life varies, as described in chapter 2 (page 71). In 1997 (EMS data), 30 percent of the (20 percent wealthy) Europeans did not understand any foreign language well enough to watch TV-news in another language and 70 percent use only one language at work. EMS reports that in 1997, 54 percent of Europeans rarely or never watch the news in a foreign language and 75 percent rarely or never watch soaps in a foreign language.

4.2.3.2. Numbers of TV sets and VCR penetration

TV ownership may have converged at macro level, but analysis at micro level shows a different picture. Although Europe is economically a relatively homogeneous area, countries still vary with respect to wealth. In Europe in 1999, among EMS respondents (top 20 percent income households), in the richer countries people think one television set is enough, while in the lower income countries they own more television sets per family. With respect to ownership of one TV set, 55 percent of variance is explained by GNP per capita, while the relationship between ownership of two and three or more TV sets is reverse: 44 percent of variance of two TV sets owned and 40 percent of variance of three or more TV sets owned is explained by lower levels of GNP per

capita (table A31, page 248). An explanation may be conspicuous consumption of the 20 percent wealthy people in the lower income countries. This does not explain the differences in ownership of wide screen television sets. Of respondents of EMS in 1999, 16.5 percent of the French, 13 percent of the Spanish, 6.7 percent of the Dutch and only 4.6 percent of the Danish report to have a wide screen television set. The differences do not correlate with income, but they correlate positively with uncertainty avoidance ($r = .63^{**}$) and with masculinity ($r = .45^{*}$). Strong uncertainty avoidance includes values related to the need for quality. The configuration uncertainty avoidance-masculinity is similar to the configuration that explains heavy viewing in a group of 19 countries worldwide¹ (table A33, page 248). Naturally, heavy viewers benefit more from higher quality viewing than light viewers and this works also at the country-level.

An example of another culture-related aspect of television in Europe, is access to television channels at work, which appears to be part of the quality of life, as concluded from the negative correlation with masculinity (1997: $r = -.75^{***}$; 1999: $r = -.74^{***}$). A similar correlation is found with VCR penetration. Also VCRs are used to improve the quality of life by controlling one's time. Worldwide, 40 percent of variance of VCR penetration is explained by income. In the group developed 26, 29 percent of variance is explained by long term orientation. An additional 22 percent is explained by low masculinity. In Europe 39 percent of variance is explained by low masculinity (table A29, page 247).

4.2.3.3. Viewing time

There have been and still are differences in viewing time between countries, and these are related to income and culture. Data on viewing time across countries are not abundant. Some have been published in the Journal "Media and Marketing Europe" in the past years, some in other publications, such as data by the IP International Media Committee, for 19 countries worldwide for 1993, 1994, 1995 and 1999. For Europe, the earliest data are of the Reader's Digest Surveys of 1970 and 1991. The measurement is viewing time per day in minutes ("daily viewing minutes"). Between 1993 and 1995, the differences between the 19 countries converge (table A32, page 248). The coefficient of variation is .21 in 1993, in 1994 it is .20 and in 1995 it is .19. Also in Europe there is some convergence. Between 1970 and 1991 convergence takes place, with a mean convergence per year of 1.97 percent. After 1993 the differences are stable or diverge slightly (table A32). The coefficients of variation are .17 in 1994, 1995 and 1996, in 1997 and 1998 they are .18. Heavy viewing at national level is related to the configuration of high masculinity and large power distance, which can be concluded from data for 19 countries between 1993 and 1995. In 1993, masculinity explains 40 percent of variance of daily viewing minutes. An additional 25 percent is explained by large power distance. In 1994, 24 percent of variance is explained by large power distance, an additional 20 percent by masculinity, while weak uncertainty avoidance explains another additional 19 percent. Similar results are found for 1995 (table A33, page 248). In Europe, in 1970 and 1991, the cultural connection with daily viewing minutes is individualism. From 1993 onwards, the configuration of dimensions to explain viewing is first the configuration high masculinity and large power distance (as in the group of 19 countries worldwide). Later, around 40 percent of variance is

¹ The configuration is masculinity/large power distance. In Europe, power distance is strongly correlated to uncertainty avoidance.

explained by lower GNP per capita. In Europe, TV viewing is the poorer countries' entertainment.

There also are differences between countries with respect to the percents "heavy viewing". Both the Reader's Digest surveys and EMS compare heavy and light viewing. For 1970 we selected as characteristic of heavy viewing "adults watching TV 21-28 hrs per week". In 1991 the measure is viewing 21-27 hrs per week, and in 1999, it is 21-30 average hours per week. The coefficient of variation in 1970 is .69; in 1991 and 1999 it is .36. So, with respect to heavy viewing, differences between countries are larger than for total viewing minutes. This measure of heavy viewing is mainly related to lower GNP per capita. So the lower income countries have a relatively higher share of heavy viewers. Data from EMS 1999 demonstrate that Portugal has a relatively large percent of heavy viewers: 49.4 percent watches between 11 and 30 hours per week. The percents in countries with a masculine culture are also higher: In the United Kingdom 57.9 percent and in Germany: 46.2 percent, as compared to the feminine cultures Sweden with 35.9 percent and the Netherlands with 38.8 percent.

4.2.4. Radio

Between 1960 and 1997 the numbers of radio receivers per 1,000 population in the group of countries worldwide 44 have converged by .82 percent per year and in the group developed 26 by 1.03 percent per year (table A34, page 249). In Europe a slight divergence is found: 22 percent per year. Until 1985 income is the explaining variable for differences in radios per 1,000 population. In all three groups around 1985 this influence of income disappears and individualism becomes the explaining variable (table A35, page 249).

In individualist cultures everybody has his/her own radio or even more than one, while in collectivist cultures one radio per household may be enough. In the individualist cultures people want to listen to their own music and programs, alone. In the collectivist cultures television may have replaced radios. In Spain and Portugal there are nearly twice as many TV sets as radios. The best explanation is the difference between individualist and collectivist cultures with respect to verbal and visual orientation. Television is more visual and radio is verbal. Figure 4.2. illustrates the increasing relationship between radio ownership and individualism for 18 countries worldwide. For these 18 countries, the significance of the correlation between radio ownership increases between 1960 and 1995. In 1960 $r = .57^{**}$, in 1980 $r = .64^{***}$ and in 1995 $r = .68^{***}$.

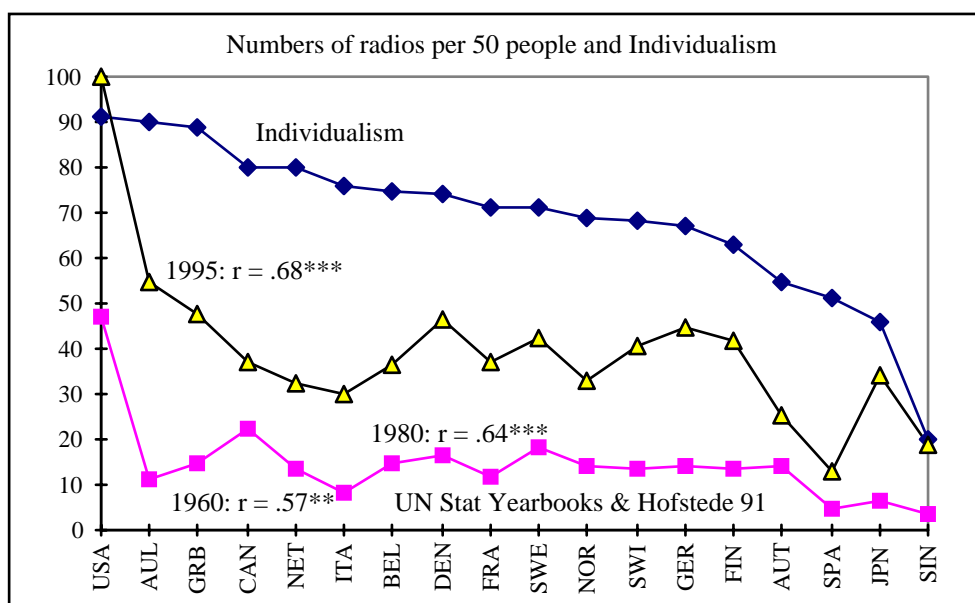


Figure 4.2: Radio penetration and individualism.

4.2.5. The press

In this section on the press, newspapers and books are covered. For magazine consumption no time series are available, although data on advertising expenditure in magazines, in section 4.2.6, are indicative.

4.2.5.1. Newspapers

Data on newspaper circulation (copies/1,000 population) are available for a long time period (United Nations Statistical Yearbooks and World Bank Development Reports). The availability of newspapers and press worldwide is a function of wealth: The richer countries are, the more press media available. When we look at circulation data of (daily) newspapers, the coefficients of variation show stable differences between countries, but this varies across the three country clusters. Table A36 (page 250) includes data from 1950 to 1996. In the worldwide 44 group the coefficients of variation converge between 1950 and 1960, but remain around .78 after 1960. In the group developed 26, after 1960, differences in newspaper circulation also remain similar and the coefficients of variation vary between .48 and .51. In the group Europe 15 newspaper circulation across countries diverges slightly, with a mean divergence per year of .08 percent. The changes in newspaper circulation over the years are influenced by two developments: (1) increased wealth leads to more newspapers in the developing countries; (2) increased importance of television leads to a decrease of newspapers in the developed countries.

A few examples of numbers of newspapers per 1,000 population of 1950, 1980 and 1996, are presented in table 4.6. We see that in some countries (e.g. Belgium), the number of newspapers is steadily decreasing, while in others, it first increases, and (with increased television availability) decreases (e.g. Mexico). In other countries (e.g. Norway), there is a steady increase.

Table 4.6. Numbers of newspapers per 1,000 people in selected countries, 1950-1996

	1950	1980	1996
Australia	455	323	297
USA	357	273	212
Belgium	331	232	160
Denmark	414	366	311
Mexico	46	124	97
Norway	415	463	593

Increasing numbers of television channels, which had the same impact in all countries, likely caused a general decline in newspaper circulation in the period 1980-1985. After that period, the normal pattern resumes. Figure 4.3. illustrates the stability of newspaper circulation over time. In this figure the rankings of twenty-five countries worldwide follows the differences in 1994. The lines of the earlier years follow the same trend. The chart visualizes the fact that in some countries (e.g. Venezuela and Singapore), economic development has increased newspaper circulation. All over, newspaper readership may have declined as a result of television, but the differences between countries have remained the same.

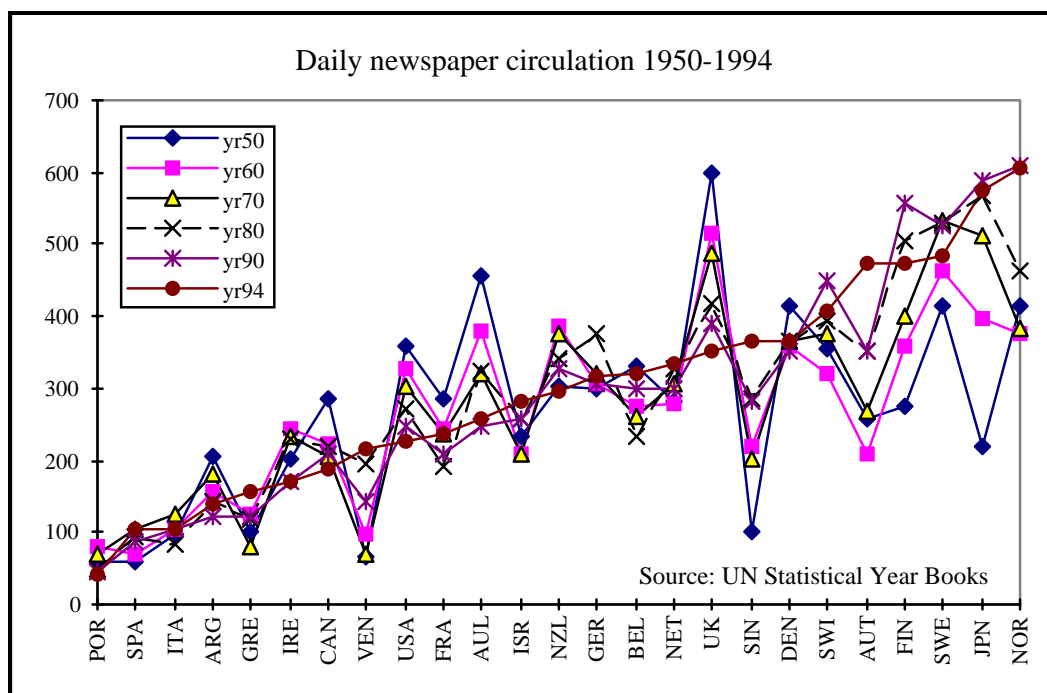


Figure 4.3. Daily newspaper circulation 1950 - 1994

Correlations between income, culture and circulation of daily newspapers worldwide demonstrate the relationship between newspapers and national income. Worldwide this relationship is stable (table A37, page 250). This stability of income's influence is also found in the group Developed 26 (table A38, page 250). In the more homogeneous group of countries of Europe, the influence of income is decreasing, and we see an increasing influence of culture. In Europe, already in 1960, weak uncertainty avoidance starts to explain part of the variance between countries (table A39, page 251). In 1975, 51 percent of variance is explained by weak uncertainty avoidance. In 1980, 49

percent is explained by weak uncertainty avoidance, and in 1996 34 percent¹.

More important to advertisers than circulation is readership, because circulation data are generally provided by the publishers and tend to be biased. Comparative readership data are not easy to collect. We use two producer independent measures, both data of 1996: Number of copies sold in 1996, published by Euromonitor (36 countries worldwide) and the measurement “read yesterday”, published by McCann Erickson (31 countries worldwide). The coefficient of variation for copies sold worldwide, is .72 and for the group developed 26 it is .54. The coefficient of variation for “read yesterday” for the group of 31 countries worldwide is .38 and for 25 developed countries it is .31 (table A40, page 251). So, although data are from different sources and based on different measurements, they are indicative for considerable differences across countries, also across the developed countries. The cultural explanation is by the degree of power distance and uncertainty avoidance: In the cultures of small power distance and/or weak uncertainty avoidance people tend to read more newspapers than in the large power distance/strong uncertainty avoidance cultures (tables A41 and A42, page 251). Figure 4.4. illustrates the correlation between newspaper readership and power distance for 20 countries worldwide.

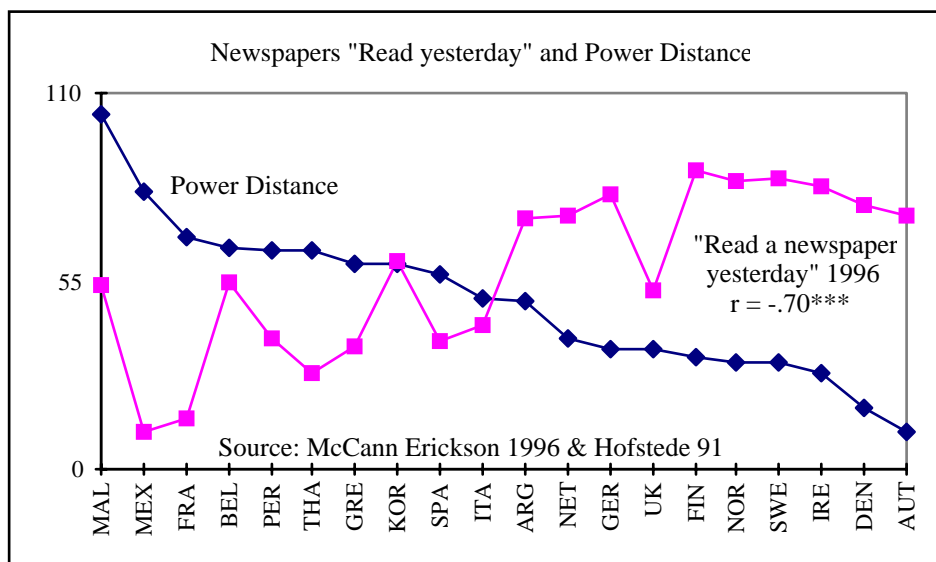


Figure 4.4. Newspaper readership and power distance

Newspaper readership is related to the degree of trust in the press, which is positively correlated with power distance. High levels of trust in authorities and the press go along with lower levels of newspaper consumption. See also chapter 5, page 174.

For Europe more data are available: Data of press consumption of 1993, 1994 and 1996 and measurements of “read yesterday” of 1991 (Reader’s Digest) and 1996 (McCann). Examples of differences in percents “read a newspaper yesterday” in 1997 are Finland: 87 percent, Germany: 80.6 percent, the Netherlands: 74.5 percent, Italy: 42.5 percent and Spain: 37.6 percent. Press (newspapers and magazines) consumption diverges between 1993 and 1996. Mean divergence per year is 4.08 percent. Mean

¹ In Europe, uncertainty avoidance is strongly correlated with power distance, which is the variable to explain differences in Newspaper readership. Alternating correlations are found between newspapers and power distance or uncertainty avoidance.

divergence per year of newspaper reading between 1991 and 1996 is 3.03 percent (table A43, page 252). Other data to calculate convergence-divergence of newspaper readership are by Eurobarometer: The percents of people who read the news in the newspaper everyday. In 1999 the percents respondents who say they read the news in the newspaper everyday vary enormously: Finland: 74 percent, Sweden: 73 percent, the Netherlands: 59 percent, Germany: 58 percent, France and Italy: 33 percent, Spain: 26 percent and Portugal: 18 percent. The coefficients of variation for this measurement remain more or less the same between 1995 and 1998: .37 and .38 (table A44, page 252). The three types of data measuring newspaper readership in Europe consistently demonstrate the relationship between newspaper readership and power distance. The percent variance explained varies between 44 percent and 69 percent (table A45, page 252).

As the differences in newspaper readership between countries in Europe have existed for more than half a century, they are unlikely to disappear. Television is likely to remain a more important medium in the collectivist cultures than the press. Newspapers are only one type of press media. Differences with respect to the other printed media, magazines and books, are mainly related to individualism-collectivism.

4.2.5.2. Book readership

Also book and magazine readership is related to culture. Data from the Reader's Digest Surveys show that heavy book reading diverges between 1970 and 1991 (table A46, page 252). Mean divergence per year is 1.12 percent. The cultural explanation is individualism, which explains 33 percent of variance in 1970 and 52 percent in 1991 (table A47, page 253). Unfortunately, we were unable to find more recent data on book readership. Table 4.7 summarizes the means of divergence for print consumption and readership.

Table 4.7. Print consumption and readership in Europe: divergence	
	Mean divergence per year (%)
Press consumption, Europe 15 (1991-1996)	4.08
Newspapers "read yesterday", Europe 15 (1991-1996)	3.03
Reading the news in the newspapers every day, Europe 13 (1995-1998)	0.66
Heavy book reading, Europe 15 (1970-1991)	1.12

Eurobarometer also provides data on book reading (percents answers "read book last week") for Europe in 1992, that correlate with IDV ($r = .81^{***}$). IDV explains 65% of variance (table A47, page 253). Readership of magazines is combined with newspaper readership. The percent answers "read magazine or newspaper last week" correlates with IDV ($r = .73^{**}$) and negatively with UAI ($r = -.78^{***}$), UAI (-) explains 60 percent of variance. Separate data on magazine readership are not available, but differences with respect to advertising expenditures in magazines are indicative. Between 1988 and 1998, in Europe, variance in advertising expenditures in magazines is explained by individualism (table A54, page 256).

4.2.6. Advertising expenditures

Total advertising expenditure per capita is an indicator of wealth. With converging incomes, advertising expenditures also converge. Between 1981 and 1995 (table A48,

page 253) in the group worldwide 44 mean convergence per year is 1.72 percent, in the group developed 26 mean convergence per year is 2.59 percent, and in Europe mean convergence per year is 2.04 percent. Correlations between GNP/capita and adspend/capita demonstrate that advertising expenditures are mainly related to GNP per capita, which explains worldwide between 74 and 88 percent of variance, in the group developed 26 between 55 and 72 percent, and in Europe between 56 and 77 percent (table A49, page 253).

Convergence of total advertising expenditures per capita is a macro phenomenon. At the micro level, the distribution of advertising expenditures over the media, there is more variety in convergence-divergence. If we look at the percents distribution of measured media, there is convergence with respect to advertising on television, but much less with respect to advertising in magazines and newspapers. Worldwide, differences between countries with respect to adspend in newspapers are more or less stable between 1988 and 1998. Adspend in magazines, television and radio converges. Mean convergence per year for the three media is .84 percent for magazines, 2.44 percent for television and 1.74 percent for radio (table A50, page 254). In the group developed 26, we see a similar development: The percent adspend in newspapers varies by year and diverges slightly. Adspend in magazines, television and radio converges. Mean convergence per year is 1.23 percent for magazines, 3.32 percent for television and 2.53 percent for radio (table A51, page 254). In Europe differences in adspend in newspapers are more or less stable. Adspend in magazines, television and radio converges. Mean convergence per year for magazines is 2.48 percent, for television it is 3.96 percent and for radio it is 4.49 percent (table A52, page 254). Overall, adspend on television converges fastest. Adspend in newspapers varies by year and convergence or divergence rates are so small that differences may be considered to be stable. In table 4.8 the convergence rates are summarized.

Table 4.8. Mean convergence - divergence per year (%) of adspend and by media. 1988-1998			
	Worldwide 44	Developed 26	Europe 15
Total adspend/capita: convergence	1.72	2.59	2.04
Newspapers: stability	0.84	0.93	0.23
Magazines: convergence	0.84	1.23	2.48
Television: convergence	2.44	3.32	3.96
Radio: convergence	1.74	2.53	4.49

The shares of total display advertising expenditure in newspapers, in magazines, and on television for the groups worldwide 44, developed 26, and Europe 15, reflect the differences in media usage and confirm findings of reading and viewing of newspapers and television. For calculation of convergence we used data between 1988 and 1998 of one source only. For understanding relationships with income and culture we also include earlier data for newspapers and television. So for newspapers and television, data of 1981 (Starch Inra Hooper) are included, which is not done for magazines and radio as these are not available.

Variance of adspend in newspapers in the three country groups is mostly explained by weak uncertainty avoidance (R^2 varies between a highest 73 percent in Europe and a lowest 37 percent worldwide) (table A53, page 255). This is consistent with our findings of readership of newspapers. Worldwide and in the group developed 26 a share of variance is also explained by low masculinity. This seems logical, as it is opposed to the relationship between viewing time and masculinity. People can spend their time only

once: Reading or viewing.

Worldwide between 23 and 40 percent of variance of adspend in magazines is explained by individualism. We have no comparative data on magazine reading, but it is likely to be similar to book reading, which also is correlated with individualism. In the group developed 26 no meaningful relationships are found between adspend in magazines and culture or income. In Europe positive correlations are found between adspend in magazines, power distance and uncertainty avoidance. In Europe the two dimensions are correlated with each other, which explains the alternating influence of the one or the other dimension. Between 28 and 50 percent of variance is explained by either power distance or uncertainty avoidance (table A54, page 256).

In line with TV viewing, adspend on television correlates negatively with GNP per capita, and a large share of variance is explained by lower incomes. Also in line with findings of TV viewing, an additional share of variance is explained by masculinity (table A55, page 257). Finally, radio is the most culture-free and not income related medium. Only in Europe (table A56, page 258), we find a negative correlation with individualism, but this is decreasing.

A few conclusions from the findings are that in the developed world along with converging incomes, the influence of income on newspaper circulation decreases much stronger than worldwide. The influence of culture increases with the decrease of the influence of income. While worldwide, adspend in magazines is correlated with individualism, in Europe, individualism plays a secondary role from 1993 onwards. At that time in Europe commercial television became important. In the more collectivist cultures television may have taken over the role of magazines while the individualist cultures remained more loyal to magazines. Television is also likely to have taken over the role of radio, in view of the disappearing influence of individualism. Interestingly, adspend on television and in magazines is positively correlated with power distance. Both media are 'people media'. Many magazines discuss people, particularly important people such as stars and politicians, those who have an outstanding role in society ("proper place in society").

4.3. THE STRUCTURE OF PRIVATE CONSUMPTION

Various publications¹ include data on the breakdown by purpose of private household consumption, or “structure of private consumption”. Published data are the percentages of total private consumption of a number of categories: Food; clothing/footwear; fuel & power; health care; transport & communications; leisure; furniture & household equipment. “Food” includes all food purchases for household consumption as well as alcohol and tobacco. “Clothing and footwear” include purchases of new and used clothing and footwear and repair services. “Fuel and power” include gross rents, fuel and electricity. “Health care” or “medical care” includes private medical and health expenses². “Transport and communications” cover all personal costs of transport, telephones, and the like. “Leisure” includes entertainment, recreational and cultural services, but not eating out. The category “furniture, furnishings and household equipment” is only available for Europe (Eurostat).

From the World Bank reports we use data of 1980 and 1998 for 37 countries worldwide³, developed 26 and Europe 15. These data are used for convergence-divergence calculations only (table A57, page 258). Correlation and regression analysis delivers similar results as from the UN data. From the UN Statistical Yearbook 1997, data for 33 countries⁴ worldwide can be compared for 1986 and 1994. For only 21 countries⁵ worldwide, data can be compared for a period of nearly 45 years (1950-1994). From these 21 countries worldwide, a group of 16 developed countries⁶ is derived. For Europe, time-series from the Eurostat Yearbooks 1997 and 1998/99 are used for the period 1986-1996, for 13 countries⁷. Table 4.9 presents an inventory of the rates of convergence or divergence per year of the various categories.

The summary of convergence-divergence in table 4.9. demonstrates that data of the different sources vary. World Bank data result in convergence only for food worldwide and divergence of all other categories in all three country groups. The other sources show more variety in convergence-divergence, but in several cases the percents are so small, that we better can conclude that there is stability. The percents of household consumption spent on transport and communications of the UN data converge in all regions.

¹ Among others: Eurostat reports, World Bank Development and Economic Indicators Reports; UN Statistical Yearbooks.

² In section 4.1.4. we already noted that the data on medical or health care vary in different sources. Eurostat only includes private expenditures, while other sources also include government sponsored national health care expenditures.

³ Worldwide 44 minus Colombia, Costa Rica, El Salvador, India, Malaysia, South Africa, Thailand.

⁴ Australia, Austria, Belgium, Canada, Colombia, Denmark, Ecuador, Finland, France, Germany, Greece, India, Ireland, Israel, Italy, Japan, Korea, Mexico, Netherlands, Norway, New Zealand, Peru, Philippines, Portugal, South Africa, Singapore, Spain, Sweden, Switzerland, Thailand, UK, USA, Venezuela.

⁵ Australia, Austria, Belgium, Canada, Denmark, Ecuador, Finland, France, Greece, Ireland, Italy, Japan, Korea, Netherlands, Norway, Peru, South Africa, Sweden, Thailand, UK, USA.

⁶ Australia, Austria, Belgium, Canada, Denmark, Finland, France, Ireland, Italy, Japan, Korea, Netherlands, Norway, Sweden, UK, USA

⁷ Europe 15 minus Norway and Switzerland

Table 4.9. Structure of consumption: mean convergence or divergence per year (%)

	Worldwide 37		Developed 26		Europe 15			
	1980-1998		1980-1998		1980-1998			
	Conv.	Diverg.	Conv.	Diverg.	Conv.	Div.		
Data World Bank Development Reports								
Food	1.90		0.72			0.99		
Clothing & Footw.	Stability		1.68		Stability			
Fuel & Power	4.40		4.82			4.58		
Health	3.27		4.66			5.16		
Transport & Com.	2.87		3.85			4.62		
Education	3.03		3.55			5.17		
Data UN Statistical Yearbooks and Eurostat (Europe 13)								
	Worldwide 33		Worldwide 21		Developed 16		Europe 13	
	1986-1994		1950-1994		1950-1994		1986-1996	
	Conv.	Diverg.	Conv.	Diverg.	Conv.	Diverg.	Conv.	Div.
Food & Drink		1.59		0.91		0.59		0.76
Clothing & Footw.		2.02		0.23	0.10			0.87
Fuel & Power		1.77		0.27	0.44			0.88
Health care	0.20			0.73		0.77		0.98
Transport & Com.	0.44		1.48		1.60			0.70
Leisure	0.35			1.71 ¹⁾		0.65 ¹⁾		1.35
Furniture & Hsh. Eq								0.57
¹⁾ 1986-1994								

¹⁾ 1986-1994

We did correlation and regression analysis only on the UN and Eurostat data. Climate is included in the calculations with food and fuel & power, because of the assumption that in cold climates people spend more on food (as energy provider) and energy than in warmer climates. According to Engel's law, with increased wealth the percent spent on food is expected to decrease: The lower the income, the higher the percent spent on food. Generally speaking this appears to be true. What is not included in the theory is the fact that the differences remain stable, so there is no convergence between countries. With respect to fuel & power, both income and climate are expected to have explaining power. In cold climates the percent spent on fuel and power is expected to be higher, thus leading to variance between countries in a group with very different climates. There is indeed, a relationship with climate, but in most cases income is overriding. The percent spent on fuel & power was expected to converge with converging incomes. This assumption is not correct. With increased wealth, people buy more energy consuming machinery, so with increased wealth, energy consumption diverges. The developments are described and explained by category.

4.3.1. Food

Engel's laws (Czinkota and Ronkainen 1988:72) provide some generalizations about consumers' spending patterns. They state that as a family's income increases, the percentage spent on housing will be roughly constant and the amount saved or spent on other purchases will increase. Thus, with increased wealth, the percent of food expenditure of total household budget should become smaller, and along with converging incomes, convergence should take place with respect to the percent of consumption spent on food. Our findings provide contradictory evidence. The results of the calculations with data from the World Bank demonstrate convergence worldwide and divergence in Europe. The UN data result in divergence worldwide and convergence in

Europe. Time series of Eurostat show convergence in Europe, but only at a small rate and the relationship between food expenditures as percent of private expenditures remain strongly correlated with collectivism. This is illustrated in figure 4.5. It reflects the cultural habit of collectivist cultures, where sharing of food is important. For the collectivist cultures, such as Spain, food has an important function in people's lives. It is an important aspect of socializing.

Even when convergence has taken place, differences remain. In 1994, the coefficients of variation are .42 for the group worldwide 33, .35 for the group worldwide 21 and .31 for the group developed 16 (tables A58-A60, page 259). In Europe, in 1996, the coefficient of variation is .22 (table A64, page 262) and the difference is explained by culture: 62 percent of variance is explained by collectivism (table A65, page 262). In Europe the percent spent on food decreases over time, with increased incomes, but countries vary with respect to the pace of change. Examples are the percents for 1986 and 1995 for selected countries: Denmark: 15.4-14.3; Italy: 20.8-16.3; Finland: 19.3-14.1; UK: 13-10.4.

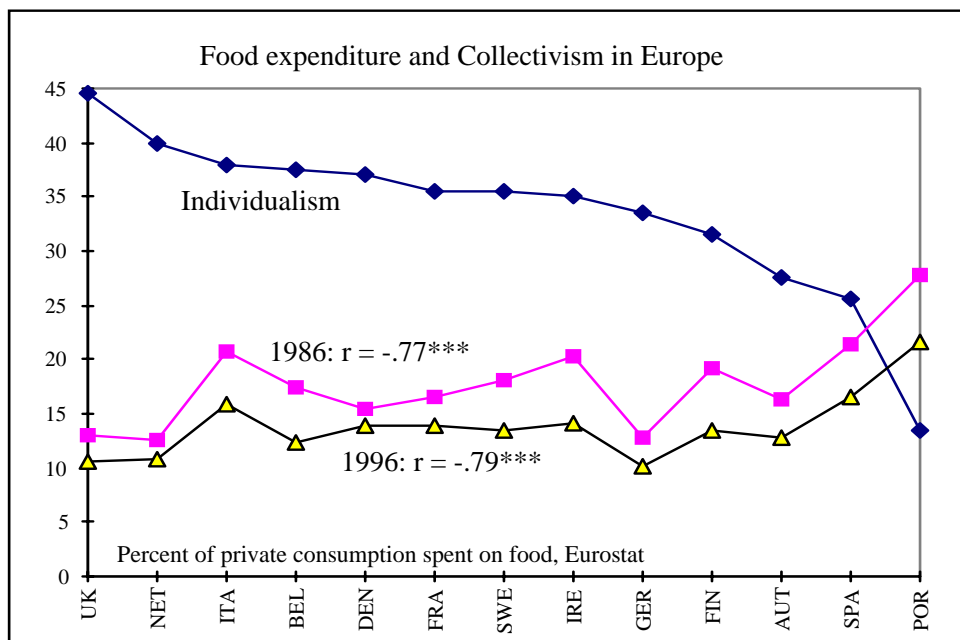


Figure 4.5. The relationship between individualism and food expenditure.

The change in percent of household expenditure on food follows a pattern. Initially, the percent spent on food of total private expenditures is large. With increased wealth, this percent decreases. Over time the influence of collectivism becomes stronger. In the individualist cultures, the percent spent on food decreases. When collectivist cultures become richer, they retain their habits. In the collectivist cultures, food is a more important part of household expenditures than in individualist cultures, because of the important role of food in society. Always having enough food in the home and spending time on cooking is an important value. So, the differences between countries with respect to expenditure on food are expected to remain related to collectivism. From the very slow pace of change, it may be concluded that it will take a long time - if ever - for fast food to be accepted as the main meal in collectivist cultures. Although McDonald's has entered nearly every country in the world, it is not used in the same way everywhere.

4.3.2. Clothing and footwear

The percents of household expenditures on clothing & footwear diverge or are stable in all groups of countries. We conclude that in the developed world the differences are stable over time (tables 4.9 and A58-A60, page 259). Worldwide the percent household expenditure on clothing and footwear is negatively correlated with income (tables A61 and A62, page 260). Not so in Europe, where in the period 1986-1996, between 31 and 44 percent of variance is explained by uncertainty avoidance (table A66, page 263). In Europe the percent household expenditure on clothing and footwear also decreases little over time.

The relationship between uncertainty avoidance and the stable percent of household expenditure on clothing and footwear confirms findings from cross-cultural observations and content analysis of advertising (De Mooij 1998a). In strong uncertainty avoidance cultures, being well groomed, or well dressed, is one way of confronting a threatening world. Expenditures on clothing and footwear were expected to be positively correlated with uncertainty avoidance. This is found to be true by the consistent positive relationship between uncertainty avoidance and the percent expenditure of total private consumption on clothing and footwear. In Europe, also significant negative correlations are found with individualism. This explains that being well dressed also means one wants to reflect well on one's environment and does not want to make one's in-group lose face by being badly dressed (Roland 1988:123). The percent of household expenditure spent on clothing and footwear in 1996 was 7.4 percent both in Spain and in Austria, in the Netherlands it was 5.9 percent and in Sweden 5.3 percent.

4.3.3. Fuel and power

The percent of household consumption spent on fuel and power diverges in all regions except in the group of 16 developed countries, where it can be described as stable (table 4.9 and tables A57-A60 and A64, pages 258/59 and 262). Figure 4.6 illustrates divergence for 14 countries worldwide. For this group of 14 countries worldwide, in 1994 climate explains 67 percent of variance and income explains an additional 17 percent. In 1985, 60 percent of variance is explained by income and in 1950 and 1960 there are no relationships with income or culture. As climate is a constant factor, it cannot be the explaining variable for divergence: climates are not becoming colder. The divergence we see is likely to be the reflection of the increasing gap between the technologically privileged part of the world versus the technologically deprived part, which is mainly related to the increasing income gap.

In Europe the percent spent on rent, fuel and electricity increases over time. Next to income, over time two cultural dimensions become additional explaining variables: Weak uncertainty avoidance and low masculinity (table A68, page 263). This configuration also explains variance of ownership of the electronic means of the new economy (see table A94, page 276). New technology drives energy consumption.

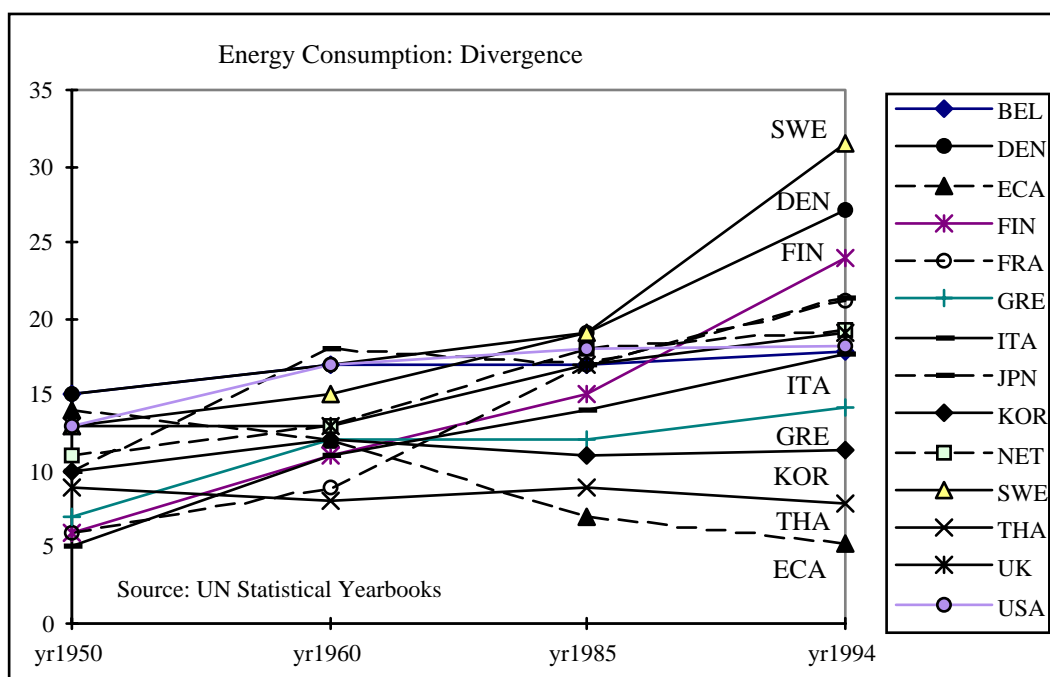


Figure 4.6. Divergence of energy consumption as percent of private consumption.

4.3.4. Health and medical care expenditures

Worldwide, in the time period 1986-1994 the percent of private consumption spent on medical and health care is more or less stable: Mean convergence per year is only .22 percent. Over the longer time period 1950-1994, worldwide and in the group of 16 developed countries worldwide, the percent private expenditure on health care diverges by .77 percent per year. The World Bank data show even stronger divergence between 1980 and 1998: Worldwide 3.27 percent per year, in the group developed 26 4.66 percent per year and in Europe 5.16 percent per year. In Europe, in the shorter period of 1986-1996, we find instead convergence at nearly one percent per year (table 4.9 and tables A57-A60 and A64, pages 258/59 and 262).

Worldwide a weak relationship is found with income. In the groups worldwide no significant relationships are found with culture, but in the group developed 16 we find an increasingly significant relationship with uncertainty avoidance. The correlation coefficient r varies from .45 to .47* (table A63, page 261). For Europe the results of calculations with the Eurostat data on health care as a percent of private consumption also show relationships with uncertainty avoidance, but of less significance. As the countries in Europe vary widely with respect to the contribution to health care by public health services, the data probably do not express the true differences. For the long time period 1950-1997 strong and stable positive relationships between the percent health care expenditure of private consumption and uncertainty avoidance are found for eleven European countries¹ of the group developed 16 (data UN Statistical Yearbooks and the World Bank World Development Indicators report 1999). The percent of variance explained varies between 42 and 57 percent. In 1997, the percent of variance explained by uncertainty avoidance is 53 (table A67, page 263).

¹ Europe 15 minus Germany, Spain, Portugal and Switzerland

4.3.5. Transport and communications

The percent of private consumption spent on transport and communications converges in all four groups of countries analysed, be it stronger in the developed world than in the groups worldwide (table 4.9). In the time period 1950-1994, worldwide, there is a consistent negative correlation with uncertainty avoidance, which explains around 30 percent of variance (table A62, page 260). In the group developed 16, in the early years the correlation with income is strongest, while this influence disappears after 1986. In 1994, 35 percent of variance is explained by weak uncertainty avoidance (table A63, page 261). In Europe, only in the early years relationships exist between income/culture and the percent expenditures on transport and communications. The Eurostat data on travel and communications show only a significant correlation with income in 1970 ($r = .69^*$) and significant negative correlations with long term orientation until 1985. Spending one's money on traveling may contrast with values of thrift. In the later years, there are no significant correlations between income and/or the cultural dimensions and the share of expenditure on transport and communications. The lack of meaningful relationships is likely due to the fact that the data combine travel and telecommunication.

4.3.6. Leisure and entertainment

Worldwide, in the period 1986-1994, the percent of private consumption spent on leisure and entertainment is more or less stable over time (table A58, page 259). In the same period, it diverges in the group worldwide 21 and both in the developed group worldwide 16 and in Europe (table 4.9). In the group worldwide 33, variance is explained by income (26 percent in 1986 and 16 percent in 1994) (table A61, page 260). No significant relationships were found between the percent expenditures on leisure and income or culture for the long-term period in the groups worldwide 21 and developed 16. In Europe, spending money on leisure and entertainment activities is related to small power distance. Consistently, between 48 and 56 percent of variance is explained by small power distance (table A69, page 264). The heavy spenders are Sweden and the United Kingdom with 3.6 percent. The low spenders are Spain and Belgium with 1.7 percent. In cultures of large power distance people are likely to spend more leisure time visiting family and relatives.

4.3.7. Furniture, furnishing and household equipment

Time series data for the percent of private consumption on furniture, furnishing and household equipment are only available for Europe (data Eurostat). Between 1986 and 1996, the percents diverge, with a mean divergence per year of 57 percent (table A64, page 262). Only between 1970 and 1976, a relationship between income and the percent of private consumption spent on furniture is found. With converging incomes, this relationship disappears. Instead, strong uncertainty avoidance explains between 40 percent and 65 percent of variance (table A70, page 264).

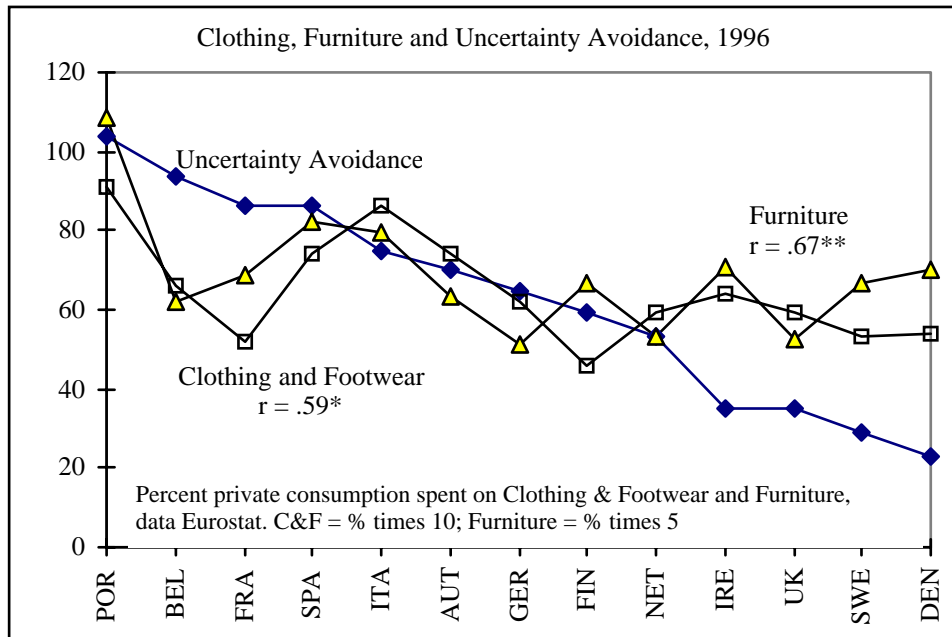


Figure 4.7. Uncertainty avoidance, clothing & footwear and furniture.

In the strong uncertainty avoidance cultures people spend more on furnishings, furniture and household equipment. This relationship is stable over time. In the later years, after 1994, also significant correlations are found with masculinity. Expensive furniture and design household equipment has become a matter of status. This finding explains the Italian and German (strong uncertainty avoidance and masculine cultures) design furniture such as by Rolf Benz, as opposed to the no-nonsense values reflected by the Swedish (weak uncertainty avoidance and feminine culture) IKEA. Figure 4.7 illustrates the relationships between uncertainty avoidance and furniture and with clothing as percent expenditure of private consumption in Europe.

4.4. FOOD, BEVERAGES, ALCOHOL AND CIGARETTES

Too few consistent time series data on food consumption are available in the public domain, to be able to measure convergence or divergence. Only for areas of concern to governments (cigarette and alcohol consumption) time series were found. For some food and beverage categories data from different time periods are available, but the data are from different sources and measured by different methods, so the results of convergence-divergence calculations should only be viewed as indicative. They do, however, give an indication of convergence, stability or divergence. In the food and beverages category there is much less convergence than in the technology category. Even in Europe, the differences with respect to food and beverages are considerable.

4.4.1. Food

Coefficients of variation are calculated for a group of 39 countries worldwide, for the group developed 26 and for Europe 15 (Euromonitor, data of 1996) for eighteen food categories, including staples, such as rice, fish, vegetables and processed food such as ice cream, frozen foods and soup (table A71, page 265). Of all eighteen food categories, the coefficients of variation are smallest in Europe, which demonstrates relative homogeneity as compared with the group of 39 countries worldwide and the group developed 26 worldwide. The average coefficients of variation for the three groups of countries are: Worldwide 39: .92; developed 26: .76; Europe 15: .57. Even in Europe some coefficients of variation are quite large, they vary from .34 for bread and .37 for meat consumption, to 1.22 for chilled desserts.

To understand the role of climatic differences, climate is included in the correlation and regression analysis for all food products. Regression analysis is done with and without climate (see appendix for description of the calculations and tables A72-A81, pages 266-270).

Worldwide (table A72, page 266) climate explains between 20 and 52 percent of variance of consumption of seven of the eighteen food products. It explains variance of consumption of meat (20 percent), liquid milk (49 percent), yogurt (36 percent), cheese (45 percent), canned foods (49 percent), chocolate confectionery (49 percent) and sugar confectionery (52 percent). The direction of the correlations between climate and the seven categories are positive, so more is consumed in the cold climates than in the warm climates. Five of the seven categories can be considered to be energy providers as they contain sugar or milk: Liquid milk, yogurt, cheese, chocolate confectionery and sugar confectionery. When climate is excluded from the equation, individualism (positive) or power distance (negative) tend to become the cultural variables to explain variance. The main cause is probably the strong correlations between climate and individualism ($r = -.73^{***}$) and climate and power distance ($r = -.71^{***}$) for this group of 39 countries. Income and cultural variables explain most of the differences with respect to processed foods. Income explains 13 percent of variance of consumption of chilled desserts and 37 percent of soup. Individualism explains 49 percent of variance of frozen foods, 50 percent of variance of biscuits, and 32 percent of variance of savory snacks. The configuration of small power distance and weak uncertainty avoidance explains variance of ice cream consumption (55 percent and 62 percent).

In the group of 26 developed countries (table A73, page 267) climate plays a lesser role, it explains variance for four categories: Negatively climate explains variance of consumption of fruit (19 percent) and positively liquid milk (35 percent), cheese (28 percent) and sugar confectionery (30 percent). Fruit grows more abundantly in warm climates, which explains high consumption. Milk, cheese and sugar confectioneries are energy providers, which explains high consumption in cold climates. Individualism explains variance of consumption of frozen foods (32 percent), canned foods (18 percent), biscuits (44 percent) and savory snacks (16 percent). Consumption of fish and rice is negatively correlated with individualism, which explains 31 percent of variance of fish consumption and 39 percent of rice consumption. Frozen foods, canned food and savory snacks are the early examples of fast food and eating in-between meals, fitting in the food habits of the individualist world. Variance of ice cream consumption is, as in the group worldwide, explained by small power distance and weak uncertainty avoidance. Small power distance explains 39 percent of variance and weak uncertainty

avoidance explains an additional 15 percent.

In Europe (table A74, page 267) climate explains variance of fruit consumption negatively (32 percent), and positively of liquid milk (46 percent) and ice cream (84 percent). So the colder the climate, the more ice cream consumed. In the 15 countries of Europe there is a significant, negative correlation between climate and uncertainty avoidance ($r = -.66^{***}$) and significant negative correlations between climate and power distance ($r = -.51^*$) and masculinity ($r = -.54^*$). This does not facilitate explanations of variance. The strong influence of climate on ice cream consumption can be explained by viewing ice cream as an energy provider (instead of a cooling mechanism) in cold climates. It is basically sweet milk. Both liquid milk and sugar confectionery are found to be energy providers, as concluded from the relationship with cold climate. Ice cream also is processed food, which may explain the relationship with weak uncertainty avoidance, a cultural dimension that is linked with the need for purity in food. In the group Europe 15 for two categories of processed food, weak uncertainty avoidance explains variance if climate is excluded from regression analysis: Frozen foods ($R^2 = .48$) and savory snacks ($R^2 = .32$).

4.4.1.1. Processed food

For Europe, a few processed food categories are further analysed, compared with non-processed food and compared over time: Liquid milk and ice cream, all sorts of frozen foods, fresh fruit, fish, jams/preserves and packaged biscuits. For these categories, data of different time periods are available. If data are from different sources, convergence cannot be properly calculated and conclusions derived from comparison of coefficients of variation are tentative.

In 1996, the Swedes drank 132 liters of milk per capita, which is twice the volume of the Italians who drank 58.9 liters per capita. The Norwegians, with 141 liters per capita drank twice as much milk as the Belgians who consumed 70.5 liters per capita. For milk, convergence-divergence is calculated from data of the same sources in two different time periods for eight countries in Europe¹. For 1970-1977 data of Eurostat are used and for the period 1985-1997 data from Food for Thought. Milk consumption converges in the period 1970-1977, with a mean convergence per year of 2.74 percent (table A75, page 268). Between 1985 and 1997, in the same eight countries, consumption of milk diverges. Mean divergence per year is .49 percent. Between 1985 and 1997, in the same eight countries, ice cream consumption also diverges at 1.54 percent per year.

Correlation and regression analysis shows a consistent relationship between milk consumption and weak uncertainty avoidance (table A76, page 269). For milk, in the eight countries, between 58 and 77 percent of variance is explained by weak uncertainty avoidance. The fact that fresh milk keeps better in cold climates than in warm ones may be one of the explanations of the relationship with climate, next to the fact that milk provides energy. The fact that milk perishes easily, can be one of the causes for the

¹ Belgium, Denmark, France, Germany, Ireland, Italy, Netherlands, and the UK

relationship with uncertainty avoidance¹. In the warm climates, even now that people have refrigerators that make liquid milk less perishable, public memory is that milk cannot be trusted. This is consistent with the finding that confidence in milk correlates negatively with uncertainty avoidance. Eurobarometer asks questions about confidence in food products, asking whether respondents think food is safe. Food categories included in the question are bread, fresh milk, cheese, canned foods, frozen foods, pre-cooked meals, and other prepackaged products. The percents answer “not safe” correlate positively with uncertainty avoidance. For fresh milk, $r = .71^{***}$, and for frozen foods, $r = .75^{***}$ (this is further discussed in chapter 5, page 172). This attitude to milk may be extended to ice cream, thus explaining the correlations between weak uncertainty avoidance and ice cream consumption.

Consumption of frozen foods also varies considerably across countries in Europe and is negatively correlated with uncertainty avoidance. Although data are from different sources and the results must be viewed as indicative, coefficients of variation were calculated for various types of frozen foods, from the Reader’s Digest surveys, Food for Thought, and Euromonitor, all for 15 countries in Europe. In 1970, coefficients of variation are .67 for frozen fish or meat and .85 for frozen vegetables. The latter decreases to .37 in 1991. The coefficient of variation for “all frozen food” is .33 in 1992 and .31 in 1997. The coefficient of variation for frozen ready meals is .40 in 1991 and 1.06 in 1997 (table A77, page 269). The measurement of 1991 is what people say they buy and in 1997 it is volume sales. In 1996 in Denmark, sales volume of frozen food was 10.4 kilograms per capita, in the United Kingdom it was 30.6, it was 14.5 kilograms in the Netherlands and 10.3 in Spain.

Between 1991 and 1997 consumption of all sorts of frozen food is negatively correlated with uncertainty avoidance. Between 38 and 60 percent of variance is explained by weak uncertainty avoidance (table A78, page 269). We concluded that low confidence in frozen foods is related to the need for purity, a value included in the dimension uncertainty avoidance. This becomes manifest with wealth. Originally consumption of frozen food is related to penetration of deep freezers but this relationship has disappeared. While in 1970 and 1991, significant correlations are found between ownership of deep freezers and consumption of frozen foods, in 1997 we do not find such a correlation (table A79, page 269).

4.4.1.2. Fresh fruit and groceries

In Europe, in 1996, most fresh fruit is consumed in Italy (98 kilograms per capita), Austria is next with 96.8 kilograms per capita and Spain with 78.5. The Danes consume only 54.3 kilograms and in the United Kingdom even less fresh fruit was eaten: 37.7 kilograms per capita. Also fish consumption varies enormously: In Spain 22.3 kilograms per capita and in Austria only 2.7 kilograms per capita. In warm climates, more fresh fruit is consumed than in cold climates. Modern distribution systems may have caused some convergence, but there still are considerable differences. There is relatively little variance of consumption of fresh apples and oranges in 1970, but these data do not represent consumption in volume. Variance is much larger for total fresh fruit

¹ The correlations between ice cream consumption and uncertainty avoidance as presented in table A76 (sourced from Food for Thought), are not very significant, in contrast to the findings from data by Euromonitor in table A74. This may be due to differences in data collection.

consumption in 1992 and 1997. The coefficients of variation for fresh fruit consumption are .42 in 1992 and .37 in 1997, which represent considerable differences (table A80, page 270). In Europe also the coefficients of variation for some grocery products and fish are quite large: Fish: .46; packaged biscuits: .42 in 1992 and .39 in 1997; jams and preserves: .37 in 1992 and .36 in 1997 (table A80, page 270).

Fish consumption is correlated with the cultural configuration of the Mediterranean region: Large power distance, low individualism and strong uncertainty avoidance. Consumption of jams and preserves is correlated with the configuration of dimensions of the northern countries of Europe: small power distance, individualism and weak uncertainty avoidance (table A81, page 270). These consumption habits have been established during the past centuries and are not likely to change fast, if they will ever change. Packaged biscuits represent a type of processed food that varies across countries because of consumption habits. The relationships with the cultural dimensions explain the different habits with respect to biscuit consumption: In the individualist, masculine, strong uncertainty avoidance cultures (Germany, United Kingdom) consumed as in-between meal snacks, while biscuits are consumed as breakfast items in the large power distance cultures.

4.4.2. Beverages

For 38 countries worldwide, developed 26 and Europe 15, consumption data (Euromonitor) are for all soft drinks, carbonated drinks, fruit juices, mineral water, tea, coffee and beer. The coefficients of variation worldwide vary between .58 for soft drinks and 1.34 for tea, the average coefficient of variation is .90. The coefficients of variation in the group developed 26 vary between .37 for soft drinks and 1.32 for tea, the average coefficient of variation is .74. Also in Europe, the coefficient of variation for soft drinks is lowest (.29) and for tea is highest (1.60), the average coefficient of variation is .66 (table A82, page 270). In all three country groups the coefficient of variation for soft drinks is smallest.

In 1996 Americans consumed 273 liters per capita of soft drinks. This is twice as much as the Dutch who drank 133 liters per capita. Germans drank 164 liters per capita, nearly twice as much as the Norwegians who consumed 86.1 liters per capita. The soft drink market is dominated by a small number of global players. It is the most homogenized market with respect to sales volume in the developed world. The soft drink market is dominated by players of Anglo-American origin who during the past 50 years also have dominated the advertising scene in the developed world. While advertising for global brands like Coca-Cola, Pepsi Cola, Fanta, Sprite and 7Up tends to be adapted to local conditions in the developing markets, the developed regions were expected to homogenize and advertising was increasingly standardized in Europe in the past decades¹. Although the differences that have remained in Europe are small, these differences, stable during the past decade, may well be caused by the reflection of

¹ In March 2000, Coca-Cola has changed its strategy from global standardization to local autonomy and decentralized management to place them closer to their local markets. In the Financial Times (WWW.FT.com, 28.03.2000), Douglas Daft, Coca-Cola's CEO was quoted "The world was moving in one direction, and we were moving in another. ... the very forces that were making the world more connected and homogeneous were simultaneously triggering a powerful desire for local autonomy and preservation of unique cultural identity".

masculine values in advertising for the leading soft drink brands. This can be concluded from the correlation between total soft drink consumption and masculinity, which in Europe explains 60 percent of variance (table A83, page 271). Figure 4.8. illustrates the relationship between soft drinks consumption and masculinity in Europe.

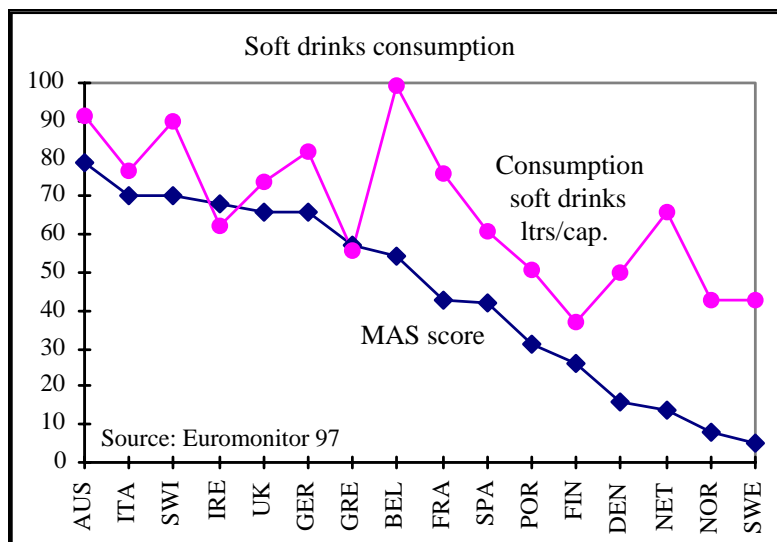


Figure 4.8: Soft drinks consumption in Europe and masculinity

Fruit juice serves as an energy drink (positive relationship with cold climate). Tea is a drink of weak uncertainty avoidance cultures. Worldwide, uncertainty avoidance explains 15 percent of variance; in the group developed 26, it explains 18 percent, and in Europe 29 percent. Although coffee is consumed in the warmer climates, the high volume coffee drinkers are in the cold climates, with the higher incomes (table A83, page 271).

Mineral water consumption varies along with climate and uncertainty avoidance. Mineral water serves as a thirst quencher (negative relationship with climate), but the relationship with culture is stronger. For mineral water consumption worldwide 28 percent of variance is explained by income and an additional 21 percent by strong uncertainty avoidance. The relationships are similar in the group developed 26, but not as significant. In Europe 53 percent of variance is explained by uncertainty avoidance, an additional 22 percent by income and another additional 9 percent by masculinity (table A83, page 271). Soft drinks and mineral water are further analysed in the following sections. Figure 4.9 illustrates the relationship between uncertainty avoidance and consumption of mineral water for 17 countries worldwide.

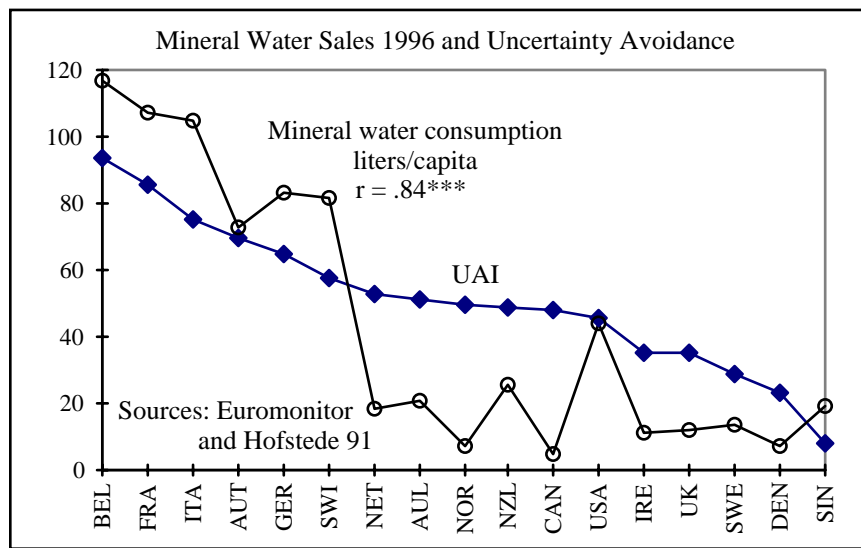


Figure 4.9. Mineral water consumption and uncertainty avoidance.

4.4.2.1. Mineral water and soft drinks in Europe

For mineral water and soft drink consumption in Europe several data are available from different sources. Data from the Reader's Digest surveys and from EMS ask questions about consumption of beverages ("drink taken in the past 7 days" or "normally having in the home"). Answers to these questions lead to smaller variation than volume sales data. Calculations with data from Euromonitor and Food for Thought demonstrate that there are considerable differences in Europe with respect to volumes of mineral water consumed. Coefficients of variation for mineral water consumption vary between .84 and .88 between 1992 and 1997 (table A84, page 272).

The Belgians drink 10 times as much mineral water as the British and 6 times as much as the Dutch, their neighbors in Europe. Although consumption of mineral water has increased everywhere in Europe, our findings indicate that the differences between countries have remained similar since 1970 or have become even stronger. Between 44 and 53 percent of variance is explained by strong uncertainty avoidance. In France, Germany, Italy and Belgium, of strong uncertainty avoidance, people drink increasing volumes of mineral water, as compared to the United Kingdom and Scandinavia, cultures of weak uncertainty avoidance, where people have lesser needs for purity and have different perceptions of what is necessary for their health. These differences cannot be explained by differences in income or quality of tap water. Correlation analysis shows that already in 1970 the need for purity, a value included in Hofstede's dimension uncertainty avoidance, is positively related to mineral water consumption. In 1970, the correlation is significant, but not strong enough to predict differences. In 1991, the relationship becomes stronger. In 1996, the cultural variables become strong predictors, explaining over 50 percent of variance (table A85, page 272). There also is a positive relationship between mineral water drinking and masculinity. This can be explained by the fact that data on total consumption of mineral water include sparkling mineral water and still mineral water. Data from EMS in 1997 show that consumption of sparkling mineral water correlates positively with masculinity, as is the case with soft drinks. There

is no such correlation between still mineral water and masculinity. Sparkling mineral water probably has the same function as soft drinks.

4.4.3. Cigarettes and alcohol

For cigarette consumption in 1996 (Euromonitor data), the coefficient of variation is much larger worldwide (.52) than in Europe (.31). The coefficient of variation for the group developed 26 is .37 (table A118, page 285). Worldwide 34 percent of variance of cigarette consumption is explained by GNP per capita and an additional 13 percent by strong uncertainty avoidance. In the group developed 26, 28 percent of variance is explained by masculinity. In Europe, 45 percent of variance is explained by masculinity and an additional 19 percent by large power distance (table A120, page 286; see also section 4.6.2.1, page 148). The relationship with uncertainty avoidance suggests that smoking is a stress reduction mechanism. The relationships with masculinity and power distance suggest that smoking expresses status. Figure 4.10 illustrates the combined relationship of masculinity and uncertainty avoidance with cigarette smoking for 16 developed countries worldwide. The multiple correlation R^2 is .74.

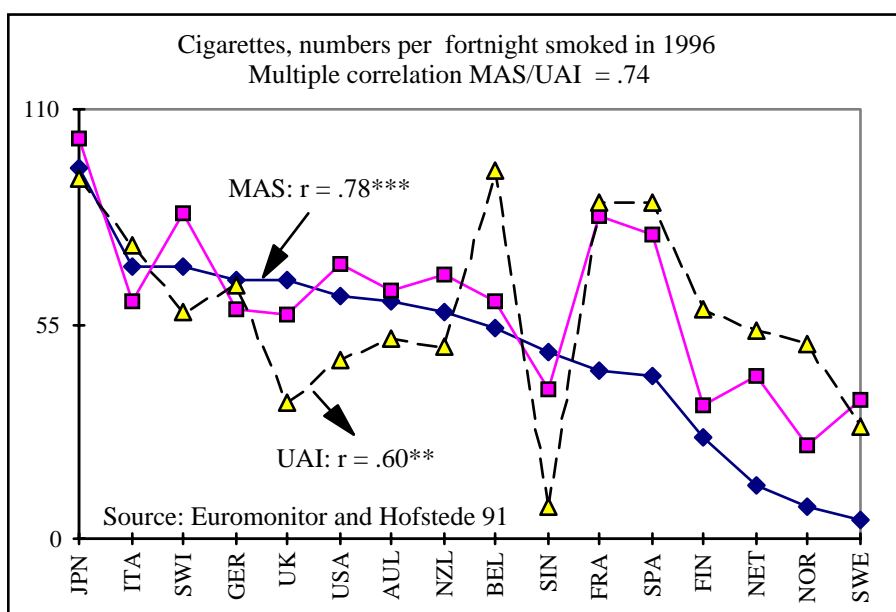


Figure 4.10. Cigarette smoking, masculinity and uncertainty avoidance.

For Europe time series are available from Eurostat. Convergence-divergence is calculated for cigarette and alcohol consumption for 15 countries in Europe, between 1983 and 1996 (table A86, page 273). In Europe the differences between countries with respect to cigarette smoking decrease in the early nineties. They are increasing again towards the end of the millennium. During these 15 years, there is a consistent significant correlation with masculinity; between 30 and 63 percent of variance is explained by masculinity (table A87, page 273). This is consistent with the findings from Euromonitor (table A120, page 286). From the relationship between masculinity and cigarette

smoking, we conclude that cigarette smoking is linked to masculine values¹. In the early eighties, the direction of the correlation with individualism is positive. In 1984 the direction changes to collectivism, although not significant. Because of group processes, in collectivist cultures, cigarette smoking is likely to be more difficult to control. There also is a positive relationship between cigarette smoking and uncertainty avoidance. Cigarettes are likely to be a means for stress-reduction. Over time this relationship may become stronger.

Another point of view is from the trend to reduce smoking: The data show that a number of feminine cultures are most successful in this strategy. During the reported 15 years cigarette consumption has declined in some countries but not in all. The champions of cigarette reduction were three feminine cultures: The Finns reduced smoking by 649 cigarettes per person per year in the 15 year period, the Swedes were second with a reduction by 554 per person per year and the Dutch third with 465 per person per year. In Spain and Portugal smoking increased with 249 and 265 per person per year, although they are feminine cultures. Their high scores on uncertainty avoidance are probably the explanation. In 1983 the heaviest smokers were the Swiss with 2,568 cigarettes per person per year, while the Norwegians were the lightest smokers with 428. In 1997 the Swiss (masculine and of strong uncertainty avoidance) still were the heaviest smokers with 2,061 cigarettes per person per year as compared with the Norwegians who then smoked 619 cigarettes per person.

Alcohol consumption converges in Europe (table A86, page 273). This is due to decreased consumption of wine in the wine growing countries. For example, Portugal and France decreased alcohol consumption from 17.7 liters per person in 1983 to 13.4 and 14.1 in 1995, while the northern countries did not increase consumption. The most significant correlations are with climate: In the warmer countries wine is grown more abundantly than in northern countries (table A.88, page 273). The correlations with climate are presented in the table, but not included in regression analysis. Doing so will obscure other interesting relationships. Strong uncertainty explains between 29 and 53 percent of variance, as in Europe uncertainty avoidance is significantly correlated with climate ($r = -.66^{***}$). Over time, the percent explained by uncertainty avoidance decreases from 53 to 29 and from 1995 onwards uncertainty avoidance is not a predictor. More interesting is the increasingly significant correlation with masculinity, which may indicate that alcohol consumption is a matter of status. Income does not play a role in explaining differences in alcohol consumption.

4.5. CONSUMER ELECTRONICS

In this section a number of products are analysed for which no time series are available, but that can be compared between the groups worldwide, developed 26 and Europe 15. Products covered are (1) The communication means of the new economy: Fax machines, mobile phones, personal computers, and the Internet. (2) Audio: CD players,

¹ This added value is likely to be linked to the category by the cowboy symbol of the leading cigarette brand Marlboro. The past decades, the Marlboro cowboy has been a ubiquitous symbol of cigarette smoking worldwide. This may have conveyed masculine values to the whole category. Also advertising for another global cigarette brand, Camel, reflects masculine values.

Hi-fi systems, and personal stereo or mini disc. (3) Household appliances: Deep freezers, dish washers, and microwave ovens (table 89, page 274).

4.5.1. The communication means of the new economy

The “new economy” is synonymous with economic development in postindustrial societies. The means of the new economy are concentrated in the developed world. In the United States, in 1998, there were 459 personal computers per 1,000 population, in the Netherlands 318, in Spain 145, and in India 2.7. The total number of computers per 1,000 population for our group worldwide 44¹ in 1998 was 7,385. Of this group, 22 countries had more than 100 computers per 1,000 population and in 11 countries there were more than 300 computers per 1,000 population. This means that 90 percent of personal computers is owned by half of our group of 44 countries worldwide and 56 percent is owned by 25 percent of this group. Personal computers are only one of the means, for the others we see the same phenomenon. All new communication means belong to one product constellation which is the driver of the new economy: Main telephone lines, mobile phones, personal computers and the Internet, they are all very significantly correlated between each other (table A91, page 275).

The coefficients of variation for the group of countries worldwide vary between .88 for personal computers in 1998 and 1.53 for Internet hosts per 10,000 population. The average coefficient of variation for the five product categories in 1998 is 1.04 worldwide, .64 in the group developed 26, and .54 in Europe. We find that countries converge with respect to mobile phones and computers between 1996 and 1998. With respect to the Internet convergence is only found in Europe. Worldwide and in the group developed 26 we find divergence (table A90, page 274).

Worldwide income explains between 45 and 84 percent of variance of faxes, mobile phones, cable penetration, PC ownership and the Internet (table A92, page 275). In the group developed 26 income is also the main driver for most of the means of the new economy, but cultural variables also play a role in explaining variance, in particular uncertainty avoidance which explains the degree of innovativeness in accepting new technology (table A93, page 276). In Europe uncertainty avoidance explains variance of ownership of PCs and mobile phones while for the Internet, both uncertainty avoidance and low masculinity explain much of variance (table A94, page 276). Figure 4.11 illustrates the relationship between uncertainty avoidance, computer ownership and the Internet for 18 countries worldwide.

4.5.1.1. The Internet in Europe

The Internet is such a new medium, that time series for a longer period than a few years are not available. In Europe the coefficient of variation for the number of Internet hosts per 10,000 population was .80 in 2000, so with respect to the new economy, Europe is certainly not a homogeneous area (table A90, page 274). The number of Internet hosts per 10,000 population in 2000 correlates negatively with masculinity ($r = -.59^{**}$), low masculinity explains 35 percent of variance (table A94, page 276). Likewise, Internet

¹ Actually 43, data El Salvador not available.

penetration, or “percent access in the Internet in past few weeks”, data by Initiative Media, as published in M&M Europe, also correlates negatively with masculinity, with 49 percent of variance explained (table A95, page 277).

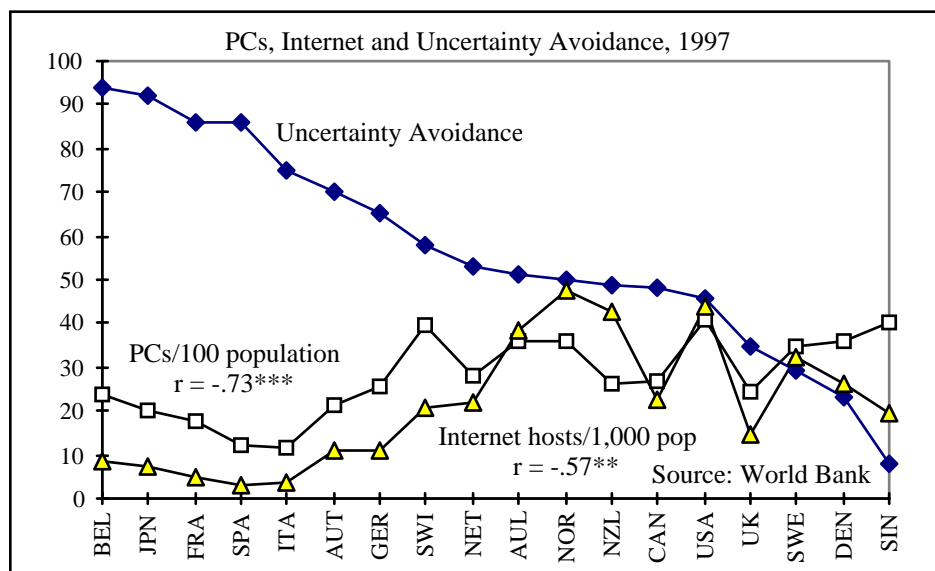


Figure 4.11. PC and Internet penetration and uncertainty avoidance.

The Internet can be used for various applications: For e-mail and communication, for educational and scientific reasons, for business purposes, for leisure and other personal reasons, for banking, for e-commerce and many others. These differences in usage are culture-bound. Eurobarometer measures the information society by asking people their willingness to pay 10 ECU's per month for eleven Internet applications. Six of these are significantly related to the cultural variables: To contact a politician on-line in view of participating in political activities, distance learning applications, information for travel, electronic newspaper, e-mail access, and home banking. The coefficients of variation for these six applications vary between 30 percent for distance learning and 62 percent for e-mail access (table A96, page 277). Of the percents answers to the answer category to contact a politician on-line, 31 percent of variance is explained by low individualism, which fits the need for personal contacts of collectivist cultures. Of the distance learning application 39 percent of variance is explained by weak uncertainty avoidance (table A97, page 277). Low masculinity explains variance of the applications electronic newspaper ($R^2 = .36$), e-mail access ($R^2 = .54$) and home banking ($R^2 = .42$).

Also EMS data on the various applications of the Internet for 1997 and 1999 show that use of the Internet converges, but also that the various applications of the Internet are related to culture. The coefficient of variation for daily use of the Internet for business was 1.28 in 1997 and .55 in 1999. The coefficients of variation for daily use of the Internet for at least one purpose are .42 in 1997 and .41 in 1999 (table A98, page 278). The coefficient of variation for daily use for purchases in 1999 is .95¹. Use of the Internet for three purposes and heavy usage still varies strongly in Europe. Of the EMS respondents, 45.4 percent of the Danes said they used the Internet for three purposes; 33.4 percent of the British and the Dutch and only 16.9 percent of the Spanish gave that

¹ 1999 was the first year when use of the Internet of e-commerce was measured.

same answer. Variance of Internet use for business purposes is explained by power distance and uncertainty avoidance. In 1997, 41 percent of variance is explained by small power distance and in 1999, 76 percent of variance is explained by weak uncertainty avoidance. Small power distance means that values of equality are strong. That is what the Internet stands for: It does not allow for values related to inequality, such as status, power play, settled positions, rigid structures, authority, and the like. In 1997, 57 percent of variance of daily use for leisure is explained by low masculinity, with an additional 14 percent explained by weak uncertainty avoidance. In 1999, 45 percent of variance is explained by low masculinity and an additional 26 percent by weak uncertainty avoidance. Variance of daily use of the Internet for education in 1997 is explained by low masculinity (39 percent) and in 1999 by weak uncertainty avoidance (31 percent). This confirms our findings for use of the Internet for distance learning from Eurobarometer. Between 49 and 78 percent of variance of use of the Internet for e-mail, both daily, once a week and once per month in 1997 and 1999, is explained by uncertainty avoidance. Use of the Internet for e-commerce is in its infancy. GNP per capita explains 34 percent of variance of use for purchases a few times a week while 41 percent of variance of use for that purpose a few times a month, is explained by power distance.

Table 4.10 presents the percents of variance explained by the different dimensions of the various applications of the Internet in 1997 and 1999. If we look at use of the Internet almost daily for the four different purposes in 1997 and 1999, findings are that the predictors for daily use for business are small power distance and weak uncertainty avoidance, the predictors for daily use for education and science are low masculinity and weak uncertainty avoidance, for use for e-mail it is weak uncertainty avoidance and the predictors for use for leisure and personal purposes are low masculinity and weak uncertainty avoidance (tables A99-A104, pages 278-279). In table 4.10 we present for each year the percent explained by the main predictor and the dimension that explains an additional percent of variance (marked by a + sign). If computer ownership is included in the calculations, this is often an explaining variable (see page 275). This demonstrates the dependence of the Internet on computers.

Table 4.10. Use of the Internet for four different purposes; Europe 15, 1997-1999							
	Percents explained: Use of the Internet almost daily for						
	business		education/science		e-mail		leisure, personal reasons
	1997	1999	1997	1999	1997	1999	1997 1999
Power distance (-)	41%						
Masculinity (-)			39%		+13%	57%	45%
Uncertainty Avoidance (-)	+31%	76%		31%	49%	62%	+14% +26%

Thus, after only a decade of Internet existence, in Europe the way it is used appears to vary across countries and variance is only explained by cultural differences. Understanding the differences will make companies more successful in using the Internet.

Because of egalitarian values implicit in the Internet, its use basically does not fit business practices of cultures of large power distance and strong uncertainty avoidance. It does not fit with centralized control, unless a company finds ways to control the Internet, which will be in conflict with its basic philosophy. The Internet also is a basically unstructured means of communications. This is difficult to accept in cultures of strong uncertainty avoidance. The latter will be late adopters of the Internet for regular communication and mail purposes. This explains a relatively low daily use of e-mail in

France and Germany, as compared with the United Kingdom and the Scandinavian countries. Education/science and leisure purposes can be pulled together with respect to the relationship with the configuration low masculinity/weak uncertainty avoidance. The key here is quality of life. In the feminine cultures, people do not restrict their need for quality of life to the private realm of the home. Both time spent in the home and in the office must be quality time as opposed to the performance oriented masculine cultures with a stricter task-orientation in working life. This is reflected in the use of Internet for leisure and personal purposes in the (feminine) Scandinavian countries. In the feminine cultures people also tend to have access to television and Teletext in the office as opposed to the masculine cultures (EMS97). With respect to access to TV channels at work, 56 percent of variance is explained by low masculinity and of the variance of use of Teletext at work, 66 percent is explained by low masculinity. Quality of life is one of the value domains discussed in chapter 5 (page 180/81). That use of the internet appeals more to feminine than to masculine values is supported by the information that in the United States more women than men surf the Internet (Otten 2000).

The cultural relationships found also explain the relatively low penetration of home computers in Japan, high on both masculinity and uncertainty avoidance, but also collectivist, where the private and public domains are more strictly divided than in individualist cultures. Because of low penetration of personal computers in Japan, access to the Internet lagged. In such countries, the Internet is likely to become more representative by introducing new carriers for it, like introducing web technology to the television (Schlegelmilch and Sinkovics 1998) or by offering Internet services by cell phone. When in Japan Netphones (WAP phones) were introduced, the cell phone became the tool of access to the Internet (Kunii 1999:41).

4.5.2. Consumer electronics: Audio

In Europe product ownership of the category audio, for example CD players and hi-fi systems, has converged. The coefficients of variation in 1999 are .14 for CD players and .08 for hi-fi systems (table A105, page 280). Although variance of hi-fi systems is small, the differences are related to income in 1991 and 1995. In 1999 35 percent of variance is explained by masculinity. Also variance of CD players is small, but among the EMS target in Europe even the small differences are related to culture. In 1997, 60 percent of variance and in 1999, 42 percent of variance is explained by low masculinity. Ownership and sales of personal stereos, in 1991 first represented by the "Walkman", and later by the mini disc, varies across Europe and is related to the configuration of weak uncertainty avoidance and small power distance (table A106, page 280). In 1996, 66.1 personal stereos per 1.000 population were sold in the United Kingdom, 61.6 in Germany, 56.7 in the Netherlands and 33.7 in Spain. In 1991 (Reader's Digest), 42 percent of variance of the personal stereo is explained by weak uncertainty avoidance. In 1995 (EMS), 30 percent of variance of the mini disc is explained by small power distance. In 1996 (Euromonitor), 40 percent of variance of sales of personal stereo's, is explained by weak uncertainty avoidance. In 1997 and 1999 (EMS), 33 and 40 percent of variance of ownership of mini discs is explained by small power distance. Between 1991 and 1996, ownership and sales of the personal stereo are related to individualism. Indeed, listening to music all by yourself, is an individualist habit.

4.5.3. Household appliances

Products selected for analysis of ownership of household appliances are electric dishwashers, deep freezers, food processors, microwave ovens, electric irons, and electric hair dryers. Between 1970 and 1991, ownership (Reader's Digest) of electric dishwashers, deep freezers, and electric hair dryers, has converged (table A107, page 280). Levels of variation of sales data cannot be compared with ownership data from surveys. But sales data for various electrical appliances can be compared and we find that they show different levels of variation. Sales data of food processors (Euromonitor) of 1996, show a higher level of variation than other appliances. The coefficient of variation for food processors is .71, as compared with .30 for sales of electric irons and .52 for sales of electric hair dryers. The latter two are correlated with masculinity. For sales of electric irons, $r = .71^{***}$, for sales of electric hair dryers, $r = .52^*$. An interesting topic for further research is analysis of sales of other small electrical appliances, to find if the relationship with masculinity can be used to explain differences.

Variance of ownership of electric dishwashers has been influenced by income since 1970. GNP per capita explains between 42 and 53 percent of variance between 1970 and 1999, even for the higher-level income groups on which EMS reports (table A108, page 281). Electric dishwashers are still a luxury, and mainly increasing incomes will stimulate penetration. The same is true for deep freezers, although to a lesser extent. In 1970, 41 percent of variance is explained by GNP per capita, and in 1991 38 percent, while an additional 24 percent is explained by low masculinity. In 1997, 34 percent is explained by low masculinity. In Europe, deep freezers can be viewed as instruments that improve the quality of life (table A108, page 281).

Ownership of food processors (as well as mixers) is not related to income and there are few relationships with culture. A problem with respect to measurement is the great variety of such machines and lack of clear definitions. Also ownership of microwave ovens is not culture-bound. There is no correlation with income either (data 1991, 1997, and 1999). Unit sales of food processors as measured by Euromonitor for 1996, however, do correlate negatively with individualism and positively with long-term orientation: 39 percent of variance is explained by collectivism, an additional 19 percent is explained by low masculinity, and another additional 14 percent by long term orientation. The link with collectivism relates to the relationship between food and collectivism. From the relationship with long term orientation, it may also be concluded that food processors do not have a function of time saving machines, as suggested by Luqmani et al. (1994), who use the need for convenience as a variable to segment markets and use ownership of food processors as a measurement of a convenience orientation (see also chapter 5, section 5.1.4.1, page 188).

4.6. PERSONAL AND HOUSEHOLD PRODUCTS

The categories covered in this section are (1) Personal products, such as watches and cameras. (2) Personal care products such as cosmetics, perfume and toothpaste. (3) Household cleaning products: soaps and cleaning products.

4.6.1. Personal products: Watches and Cameras

Watches and cameras belong to the product category generally taken as examples of high touch, culture-free products. The wealthy, global target groups of travelers and business people are assumed to be homogeneous in their buying behavior, ownership of and preference for such products. Data used for analysis of the categories watches and cameras are from the Reader's Digest surveys and from EMS.

4.6.1.1. Watches

In 1970 the coefficient of variation for the measurement "bought wrist watch in past year" (Reader's Digest) is .19, while in 1996, the coefficient of variation for sales of wristwatches is .26. This suggests divergence, but the different measurements should not be compared. We can compare the differences with respect to the value of watches bought or sold. Variance of buying cheap watches may be a better measurement of differences between countries with respect to the affordability of watches, thus measuring convergence-divergence. While the coefficient of variation for buying cheap watches (in 1970 less than £ 5, in 1995-1999 less than £100), is .57 in 1970, in 1999, it is .17 (table A109, page 282). The differences between countries with respect to ownership of expensive watches are much larger and there is no convergence. In 1991, the coefficient of variation for ownership of a watch over US\$ 300, is .70. In 1999, the coefficient of variation for ownership of a watch over £1,000 is also .70 (table A109, page 282). Most aspects of watch ownership and buying are either related to income or to the cultural variables. Variance of "watch bought in the past year" in 1970 is explained by GNP per capita ($R^2 = .57$). In 1996, 33 percent of variance of number of units sold is explained by collectivism. Variance of what in 1970 is viewed as expensive watches (over £20), is explained by GNP per capita ($R^2 = .35$), not so after 1991. Only in 1997, income explains part of variance. In 1995, 1997 and 1999, masculinity explains variance.

In the wealthy 20 percent of populations, measured by EMS (the target group, in literature considered to be universal in their behavior with respect to this type of product!), the value of watches owned, the number of watches owned and the brands are related to culture. Ownership of cheap watches (under £100) correlates negatively with GNP per capita, positively with power distance, and negatively with masculinity. In 1999 52.1 percent of the Swedish respondents of EMS and 54.8 percent of the Dutch report that the value of their main watch is under £100, as compared with 34.3 percent of the Austrians and 39 percent of the Italians. In 1995 and 1997, 49 and 50 percent of variance is explained by low GNP per capita and an additional 25 and 26 percent by low masculinity. The relationship between cheap watches and low income is a logical one. Low status needs and a no-nonsense attitude in the feminine cultures explain high ownership of cheap watches. In contrast, masculinity is the predictor for sales of

expensive watches (over £1,000). In 1999, 11.9 percent of the Italian respondents of EMS report that the value of their main watch is over £1,000 as compared with only 2.1 percent of the Swedes. In 1995, 32 percent of variance is explained by masculinity, in 1997 31 percent, and in 1999 29 percent (table A110, page 282).

4.6.1.1.1. Number of watches owned

EMS asks questions about the numbers of watches owned in 1995, 1997 and 1999. Obviously, everybody in the EMS target owns at least one watch. The coefficients of variation for two watches owned are lowest: Between .11 and .12. The coefficients of variation for owning "only one" watch are larger: Between .20 and .23. Ownership of three and more than four watches converges: For three watches from .42 to .29 and for four plus watches from .68 to .55 (table A111, page 282). In 1995, 1997 and 1999, we see the same relationships between numbers of watches owned and the cultural variables, although significance varies (table A112, page 282). Ownership of one watch is negatively correlated with masculinity, uncertainty avoidance and long-term orientation. In 1997 and 1999, 34 and 37 percent of variance is explained by short-term orientation. Obviously, owning only one watch is short-term thinking. If it fails, you don't have another. In contrast, ownership of two watches is correlated with long-term orientation. In 1997 and 1999, 54 and 44 percent is explained by long-term orientation, which can mean that in the long-term orientation cultures people generally have a second watch in case the first one fails. The most significant relationship with ownership of three watches and with four plus in 1999 is collectivism, for which we have no explanation. It may mean catching up with the modern world. In 1995, 28 percent of ownership of four plus watches is explained by masculinity, thus status needs. In 1997, 38 percent of ownership of four plus watches is explained by uncertainty avoidance. In 1999, 36 percent of variance is explained by low individualism and an additional 29 percent by masculinity. Owning four or more watches means anxiety, risk reduction and status.

4.6.1.1.2. Watch brands

In EMS questions are also asked about ownership of specific watch brands ("brand name of main watch"). For four brands (Rolex, Seiko, Swatch and Omega), meaningful relationships with culture are found (table A114, page 283). In 1997 coefficients of variation vary between .93 for Swatch and .43 for Omega (table A113, page 283). For other brands the reported percents are too small to do meaningful calculations. For Rolex, Seiko, Swatch and Omega, calculations result in significant correlations with the cultural variables. These are also the brands with a global positioning based on global advertising. We find no relationship with income for any of these brands of expensive watches.

Rolex is a watch for those who want to distinguish themselves from others. In 1997 it correlates with individualism ($r = .47^*$). It is positively, though not significantly correlated with masculinity. The message of the advertising campaign for Rolex is that it is a brand for distinguished people, referring to professionals, people (singers, musicians, scientists, sports people etc.) who have distinguished themselves in their profession. So, the values included in advertising for Rolex, are not plain status, but more individualist, how the brand distinguishes the dedicated professional from ordinary people.

Seiko appears to be a no-nonsense brand for those who don't need status. Ownership of a Seiko as main watch, in 1995 correlates negatively with uncertainty avoidance ($r = -.66^{***}$) and in 1997 negatively with masculinity ($r = -.61^{**}$) and with uncertainty avoidance ($r = -.50^*$). In 1995 44 percent of variance is explained by weak uncertainty avoidance and in 1997, 38 percent of variance is explained by low masculinity.

Swatch, although a cheap watch, has become a status brand. Both in 1995 and in 1999, variance is explained by masculinity (in 1995, $R^2 = .56$ and in 1997, $R^2 = .47$). Wearing a Swatch, but, more important, having the latest model, is a sort of snobbery. Omega has no strong cultural position. In 1995, 34 percent is explained by collectivism.

4.6.1.2. Cameras

Ownership of a (still) camera in Europe, has converged between 1970 and 1999. Mean convergence per year is 2.54 percent. With respect to ownership of two or three cameras, countries have diverged. For the various types of cameras, convergence has taken place (table A115, page 283). With respect to ownership of a few specific camera types, the differences are still pretty strong. For example, in 1999, the coefficient of variation for Polaroid cameras is .41.

Only in 1970 and 1991, camera ownership is linked with income. In 1970 GNP per capita explains 70 percent of variance. In 1991 GNP per capita explains 58 percent of variance, individualism explains an additional 24 percent and low masculinity another additional 13 percent. In later years, among the top-20 income groups in Europe, only ownership of expensive compact cameras (over £100) is linked with income: GNP per capita explains around 56 percent. Variance of ownership of the cheaper compact cameras (less than £100) is explained by individualism in 1995 ($R^2 = .38$), and by weak uncertainty avoidance in 1997 ($R^2 = .38$) and in 1999 ($R^2 = .42$). Ownership of a 35-mm camera in 1997 and 1999 is related to income. GNP per capita explains 43 and 45 percent of variance. The Polaroid (instant) camera is a status symbol. It is correlated with masculinity in 1991 ($r = .55^*$), in 1995 ($r = .63^{**}$), in 1997 ($r = .50^*$), and in 1999 ($r = .51^*$) (table A116, page 284). Of the EMS respondents in 1999, 19.1 percent of Italians report to own an instant (Polaroid) camera as compared with only 5 percent of the Dutch.

How people use their cameras also varies. Heavy usage is in the masculine, short-term oriented cultures. In the no-nonsense and thrifty cultures, people may own cameras, but they use them less frequently. The number of films used in the past year can measure usage of cameras. This correlates with income in 1991 and 1999, but heavy usage also correlates with masculinity in 1995, 1997 and 1999. In 1995, 37 percent of variance is explained by masculinity. In 1997, 35 percent of heavy film usage is explained by short-term orientation (= no thrift), and an additional 29 percent is explained by masculinity. In 1999, 42 percent of variance is explained by GNP per capita, an additional 36 percent by masculinity and another additional 8 percent by short-term orientation (table A117, page 284).

4.6.2. Personal products

In this section we cover (1) Personal care products and miscellaneous personal products for three regions: real jewelry, cigarettes and pet foods. (2) Personal care products in Europe.

4.6.2.1. Personal (care) products

Comparison of eight product categories in the personal care category worldwide, in the group developed 26 and in Europe shows that the coefficients of variation worldwide are larger than in the developed world and in Europe. So, the developed regions are more homogeneous, but there still are considerable differences. For eight product categories (all perfumes and fragrances, women's fragrances, all color cosmetics, all skin care products, all hair care products, all bath and shower products, toilet soaps and toothpaste), the average coefficient of variation worldwide is .73. For the group developed 26 the average coefficient of variation is .53 and in Europe the average coefficient of variation is .42 (table A118, page 285).

For a few other products we also find heterogeneity versus homogeneity. Worldwide there are large differences with respect to OTC health care products. The coefficient of variation is .95, while in the group developed 26 it is .57 and in Europe .44. Sales of real jewelry varies strongly both worldwide ($CV = .72$), in the developed world ($CV = .66$) and in Europe ($CV = .66$). The coefficients of variations for cigarette consumption are smallest: Worldwide .52, in the group developed 26 it is .37, and in Europe .31. Variance of pet foods is largest worldwide: The coefficient of variation is 1.01. In the group developed 26 the coefficient of variation is .74 and in Europe it is .54 (table A118, page 285).

Worldwide, in the group developed 26 and in Europe, much of the personal care product category is related to income. For the eight products in the category personal care, between 60 percent (toilet soaps) and 30 percent (all hair care products) of variance is explained by GNP per capita (table A119, page 286). From this finding, one may be tempted to conclude that the richer people become, the more they will spend on these products. However, when we analyse the category at micro level, we find relationships with culture, which demonstrates that not necessarily all cultures, when becoming richer, will spend more on skin care and cosmetics.

Toilet soaps as a category, in the three country groups, is neither linked with income, nor with the cultural variables. Only in the group worldwide, 16 percent of variance is explained by small power distance. Although toilet soap may have become a global commodity, thanks to successful global advertising campaigns such as for Lux toilet soap, the relationship with small power distance may indicate that even this commodity has remained part of Western culture.

The four miscellaneous personal products show relationships with income and culture (table A120, page 286). Over-the-counter (OTC) health care sales in all three regions is a matter of wealth. Sales of real jewelry are not correlated with income, but with masculinity. Worldwide, 20 percent, and in the group developed 26, 37 percent is

explained by masculinity. In Europe, the relationship is weaker, but the correlation is significant ($r = .51^*$).

In each country group cigarettes have different relationships with income or culture. Worldwide cigarette smoking is linked with income ($R^2 = .34$), but in the developed world smoking obviously is a matter of status, in view of the correlations with masculinity and power distance. In the group developed 26, 28 percent of variance is explained by masculinity. In Europe, 45 percent of variance is explained by masculinity and an additional 19 percent by large power distance (table A120, page 286).

Pet food (processed) sales are a function of individualism. Worldwide, 35 percent of variance is explained by individualism. In the group developed 26, 59 percent of variance is explained by individualism and in Europe, 52 percent (table A120, page 286). In collectivist cultures pets eat from the leftovers of humans and take food from everywhere in the environment where they live. They roam about more freely.

4.6.2.2. Personal care products in Europe

For most products in the personal care category in Europe, the coefficients of variation decrease. For a few they increase (table A121, page 287). Divergence such as of face powder, may be due to changes in cosmetics fashion. As the data do not cover exactly the same products in different time periods, no means of convergence are calculated. Differences in use may become smaller, but differences with respect to how much people spend, remain relatively large. Moisturizing creams, all skin care sales and sales of medicated skin care, are all related to income. Between 41 and 50 percent of variance is explained by GNP per capita. In 1991, 70 percent of variance of body creams, is explained by weak uncertainty avoidance (table A122, page 288).

Because of changes in what is fashionable, types of cosmetics change, but the trend of culture's influence remains the same. The individualist cultures are the ones where people want to distinguish themselves from others. Color cosmetics are a means to do this. But also weak uncertainty avoidance explains variance, as cosmetics are artificial, not pure. For all products in the category the direction of the relationship with individualism is positive and with uncertainty avoidance negative, which demonstrates that the two cultural dimensions are meaningful for explaining differences with respect to cosmetics and personal care products. In 1970 and 1991, 48 and 82 percent of variance of lipstick is explained by weak uncertainty avoidance.

Of variance of sales of lip products in 1996, 53 percent is explained by income, and an additional 17 percent by short-term orientation. In 1970 uncertainty avoidance explains 52 percent and in 1991 40 percent of variance for eye cosmetics. Individualism explains 48 percent of variance of make up liquid in 1970 and 50 percent of variance of rouge in 1991. Table 4.11 provides an inventory of the correlations between personal care products and power distance, individualism and uncertainty avoidance.

Table 4.11. Cosmetics and personal care products, Europe 15. 1970 - 1996

	Power distance			Individualism			Uncertainty avoidance		
	1970	1991	1996	1970	1991	1996	1970	1991	1996
Lip products	-.27	-.60**	-.29	.65***	.71***	.38	-.69***	-.90***	-.32
Eye cosmetics	-.50*	-.34	-.55*	.49*	.63**	.37	-.72***	-.63***	-.48*
Deodorants	-.46*	-.47*	-.40	.46*	.56*	.54*	-.74***	-.84***	-.64***

The coefficients of variation for hair care products also decrease in time (table A123, page 288). There also is a relationship between weak uncertainty avoidance and hair care products, although with varying significance. While in 1970 the frequent visits to the hairdresser took more place in the masculine cultures than in the feminine cultures, self-usage of hair care products was related to wealth. In 1996, 35 percent of variance of sales of all hair care products, is explained by GNP per capita. However, 39 percent of variance of the volume of shampoo used, is explained by low masculinity, which may indicate that in the feminine cultures women wash their hair more frequently than in the masculine cultures. In view of the relationship with individualism, hair coloring is a product used to demonstrate one's individuality, see for example the extreme colors used by the young, even in Japan (table A124, page 289).

The coefficients of variation for sales of toothpaste and deodorants in Europe are relatively large: .35 for toothpaste and .43 for deodorants. For these products weak uncertainty avoidance is the explaining variable. In 1996, 51 percent of variance of sales of toothpaste is explained by weak uncertainty avoidance. Use of toothpaste is originally linked with wealth, but in 1996 more with weak uncertainty avoidance, 51 percent of variance of toothpaste sales is explained by weak uncertainty avoidance and an additional 16 percent is explained by GNP per capita. This may indicate that in weak uncertainty avoidance cultures people use more toothpaste or spend more money on toothpaste (table A124, page 289).

Also variance of use of deodorants by women in 1970 and 1991 is also explained by weak uncertainty avoidance (1970: 55 percent and 1991: 70 percent). In 1996, GNP per capita explains 46 percent of variance of sales of deodorants, but an additional 20 percent is explained by weak uncertainty avoidance (table A124, page 289). The need for purity obviously is important for sales of cosmetics, hair care, toothpaste and deodorants.

Finally, in this section we summarize data on men's shaving products. In Europe shaving methods have not changed much over time. Although dry and wet shaving have converged between 1970 and 1991 (Readers Digest Survey data), use of shaving lotion has diverged and the coefficient of variation of sales of men's shaving products in 1996 is still considerable: .44 (table A125, page 289). Since 1970, dry, or electrical shaving has been a matter of wealth. In 1970, 44 percent of variance of dry shaving, and in 1991, 50 percent, is explained by GNP per capita. In reverse, variance of wet shaving is explained by low income (table A126, page 289).

4.6.3. Luxury products

Ownership of and expenditures on luxury products are not culture-free, according to findings from data for a number of luxury articles. EMS99 asks questions about the amount of money spent on a range of luxury products and the value of luxury articles

owned. These belong to the category “high touch”, generally labeled as “culture-free” by authors of global marketing. Two groups of products are covered. (1) Ownership of luxury articles: Answers to the answer categories “Jewelry over £500”; “Suit or dress over £500”; “Briefcase or handbag over £200”; “Shoes over £100”. (2) Annual spending on perfumes, skin care, cosmetics, for oneself or as a gift. Answer categories are: “Less than £20”; “Between £50 and £99”; “Between £100 and £249”; “Never buy”.

The coefficients of variation for the various answer categories vary between a high .59 for ownership of expensive suits or dresses and a low .21 for annual spending between £50 and £99 on perfumes (table A127, page 290). So, the greatest similarity of Europeans of the higher 20 percent income levels is with respect to their relatively low expenditures on perfumes.

High expenditures of jewelry, expensive suits or dresses and briefcases, correlate with masculinity. For expensive clothing, 46 percent of variance is explained by masculinity, and for expensive handbags or briefcases, 27 percent is explained by masculinity (table A128, page 290). In EMS 1999, 38.4 percent of Italians and 34.6 percent of Austrians report they own an expensive suit or dress as compared with only 8.4 percent of the Swedes and Danes and 12.4 percent of the Dutch. The relationship between masculinity and jewelry is a bit weaker, but significant ($r = .49^*$). In correlation and regression analysis we also included the answers don't know, to questions on the value of their possessions. These are likely to represent people who don't care if they own expensive products or brands. The answers correlate negatively with masculinity ($r = -.49^*$). In the feminine cultures people may in fact own luxury articles, but are not interested in the value per se, because status needs are low.

With respect to annual spending on perfumes, the most significant finding is the negative correlation between high spending on perfume and long-term orientation ($r = -.46^*$) and the positive correlation between the answer “never buy” and long-term orientation ($r = .47^*$) (table A128, page 290). Values of thrift do indeed influence expenditures on luxury articles.

Annual spending on cosmetics and skin care correlates negatively with individualism, which suggests that in collectivist cultures people spend more on cosmetics. This is in contrast to earlier findings of a positive relationship between cosmetics and skin care and individualism. With respect to expenditures between £50 and £99 on cosmetics and skin care, 49 and 36 percent of variance is explained by low individualism, while of cosmetics, an additional 17 percent is explained by short-term orientation. With respect to expenditures between £100 and £249 on cosmetics and skin care, 28 and 27 percent of variance is explained by low individualism. In contrast, 39 percent of the answer category “never buy” of cosmetics and 46 percent of this answer for skin care, is explained by high individualism. An additional 24 percent of variance of the answer “never buy” for skin care, is explained by long-term orientation (table A128, page 290). So, skin care and cosmetics are most bought by collectivists. As 68 percent of the respondents to EMS are males, it is likely that most of the items of the second group, such as cosmetics and perfumes are purchased as gifts. People in collectivist culture bring presents, are more generous than individualists. Indeed, only 5.4 percent of the Dutch respondents spend between £50 and £99 annually on cosmetics as compared with 14.6 percent by the Spanish. A conclusion to be drawn from these findings is that the configuration individualism and long-term orientation, including values of thrift, is a

strong negative predictor for sales of the type of luxury articles that are sold on-board by airlines.

4.6.4. Household cleaning products

For three household product categories: “all household cleaning products” (in value per capita), “all soaps and detergents” (in volume per capita), and “all disposable paper products” (in value per capita), variance can be compared between the group of countries worldwide, the group developed 26, and Europe 15. With respect to these products, both the group developed countries and Europe are far more homogeneous than the group of countries worldwide. The differences between the groups of countries are largest for disposable products. The coefficient of variation for the group worldwide is 60 percent, in the group developed 26 it is 42 percent and in Europe 20 percent (table A129, page 291).

Worldwide, 54 percent of variance of household cleaning products and 59 percent of variance of disposable products is explained by GNP per capita. For soaps and detergents, no relationships with either income or culture are found. In the group of developed countries, income also explains variance: 17 percent of household cleaning products and 34 percent of disposable products. However, in the developed countries income does not explain variance and 24 percent of variance of soaps and detergents, is explained by uncertainty avoidance. Figure 4.12 illustrates this for 15 countries worldwide. In 1996 the Spanish used 37.7 kilograms per capita and the French 24.5 kilograms, as compared with 17 kilograms by the Dutch and 9.8 kilograms by the Swedes.

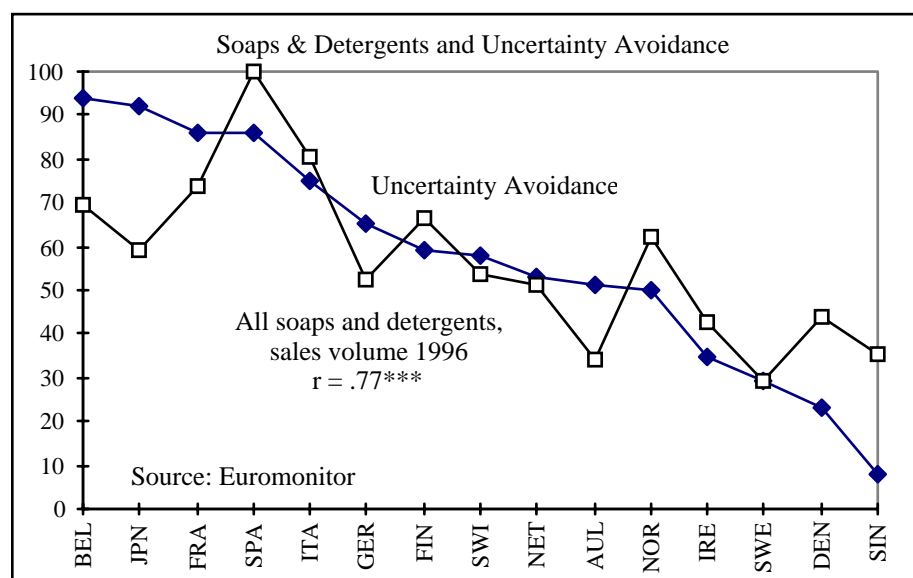


Figure 4.12. Soaps & detergents and uncertainty avoidance.

In Europe both household cleaning products and soaps and detergents are significantly correlated with uncertainty avoidance, but variance is explained by power distance (for soaps and detergents: $R^2 = .46$, household cleaning products: $R^2 = .53$) (table A130, page 291). This has a similar meaning as uncertainty avoidance, as in Europe, the two are interchangeable. So, the differences in use of cleaning products can best be explained by the degree of uncertainty avoidance. From our analysis of food and

beverage products and personal care products, we already found that the dimension uncertainty avoidance includes values related to the need for purity. The findings of cleaning products confirm this.

The values related to use of disposable products are different. In Europe, use of disposable products is correlated positively with individualism ($r = .61^{**}$) and negatively with uncertainty avoidance ($r = -.66^{***}$), and 43 percent of variance is explained by weak uncertainty avoidance (table A130, page 291).

4.7. FINANCE

This section includes findings of calculations for several financial products: credit cards, insurance products and financial investments. Data are available for Europe only.

4.7.1. Credit cards

Differences between countries in Europe with respect to ownership of credit cards have remained more or less stable. The coefficient of variation for households with credit card (Reader's Digest surveys) in 1970 is 1.08 and in 1991 it is 1.12. EMS also asks questions about ownership and usage of credit cards. The coefficients of variation for having a credit card, are .13 in both years, so we may consider Europe to be quite homogeneous with respect to ownership of credit cards in general. But the type of card owned and the frequency of use vary across countries, and are culture-bound. Coefficients of variation for having a corporate credit card are larger: .33 in 1997 and .34 in 1999 (table A131, page 292). How people use their credit card varies widely across the countries of Europe. The coefficients of variation for daily use are .76 in 1995, .78 in 1997, and .71 in 1999. Europe is most homogeneous with respect to use of credit card "once a week or more", for which the coefficient of variation is .27, both in 1997 and in 1999 (table A131, page 292).

In 1970, credit cards were not mainstream means of payment, and were adopted first by the weak uncertainty avoidance cultures: 45 percent of variance is explained by weak uncertainty avoidance. In contrast, in 1991, 43 percent of variance of debit card ownership, is explained by GNP per capita. In Europe, the individualist/low masculine cultures were the front runners for modern electronic payment systems, as demonstrated by the early use of the auto cash dispensers: 28 percent of variance is explained by low masculinity and an additional 32 percent by individualism. While in 1997, penetration of credit cards in the top 20 high-income countries has become high, this is not the case with ownership of corporate credit cards. For corporate credit cards, in 1997, 43 percent of variance is explained by uncertainty avoidance. In 1999, 53 percent of variance is explained by uncertainty avoidance, with an additional 15 percent explained by low masculinity, and another additional 10 percent by GNP per capita. For companies to give a corporate credit card to people, trust is necessary. This is higher in the weak uncertainty avoidance cultures, than in strong uncertainty avoidance cultures (table 132, page 292).

When there is full penetration of credit cards in Europe, it is more interesting to know what explains the differences in use. There is no relationship whatsoever with income. "Daily use" is part of short-term orientation cultures: Between 41 and 47 percent

of variance is explained by short-term orientation. In EMS 1999, 26.5 percent of the French respondents claim to use their credit card daily and 18.5 percent of the British do so. Only 7.6 percent of the Spanish, 3.2 percent of the Dutch and 2.2 percent of the Germans claim to use their credit card daily. "Use once a week" is related to large power distance and to short-term orientation. "Use a few times a month" is the answer that is relatively more given in the masculine cultures. Once a month or less is related to long-term orientation, thrift. In 1997, 27 percent of variance of use once a month is explained by long-term orientation, in 1999, 43 percent of variance is explained by long-term orientation. In 1995, 50 percent of answers saying "use less than once a month", is explained by long-term orientation (table A132, page 292).

4.7.2. Insurance and investments

For 1970 and 1991, ownership of life insurance and building and home insurance can be compared. Although there is convergence, differences between countries are still considerable (table 133, page 293). Taking a building insurance is an individualist habit. In collectivist cultures the family tends to serve as a safety net. But there is a stronger relationship with weak uncertainty avoidance, which explains 54 percent of variance of life insurance ownership in 1970 and 45 percent in 1991. In 1991, for private pension funds, 33 percent of variance is explained by weak uncertainty avoidance (table A134, page 293).

At face value, one would expect that individuals of strong uncertainty avoidance cultures would own more insurance products than members of weak uncertainty avoidance cultures, while it appears to be the opposite with respect to private insurance and ownership of private pension savings plans. This implies that individuals of strong uncertainty avoidance cultures tend to buy less insurance and pension related investments personally. This demonstrates that uncertainty avoidance is not the same as risk avoidance. Insurance products eliminate risk. Members of weak uncertainty avoidance cultures may make a cool calculation of risk and insure themselves, for members of strong uncertainty avoidance cultures it is a more emotional reaction. Ownership of stocks and shares, private pension plans and savings accounts, are all related to weak uncertainty avoidance. In strong uncertainty avoidance cultures people will expect the government or their company to take care of their pension plans. This is confirmed by 1995 OECD data for 15 European countries on public pension spending as a per cent of GNP which correlate positively with uncertainty avoidance (.66***). This phenomenon is related to citizen competence or internal locus of control, the degree to which people tend to organize their lives themselves or wait for the authorities to organize it for them. A similar correlation is found between uncertainty avoidance and the answer 'strongly agree' to the Eurodata 91 question 'welfare is the responsibility of government' ($r = .46^*$). The phenomenon "locus of control" is one of the value domains to be described in more detail in chapter 5 (pages 173-175).

With respect to private investments, there are considerable differences between countries. The coefficient of variation for ownership of mutual funds in 1999 is .78, for investing in precious metals or gems, it is .51 (table A133, page 293). Countries have converged with respect to stocks and shares and mutual funds, but between 1995 and 1997 they have diverged with respect to precious metals and gems.

In 1970 and 1991 owning stocks and shares is a characteristic of wealthy societies,

not anymore so in 1995, when it relates to weak uncertainty avoidance. Between 29 and 47 percent of variation of stocks and shares as investments is explained by weak uncertainty avoidance. Variance of unit trusts/mutual funds is explained by long-term orientation: 54 percent in 1995, 61 percent in 1997, and 67 percent in 1999. Stocks and shares give short-term results, while mutual funds are a longer-term investment. Indeed, one does not do short term trading with mutual funds, one keeps them for some time. Variance of investments in precious metals is explained by masculinity (34 percent). This confirms the relationship between sales of real jewelry and masculinity. Variance of collections as investment, is related to collectivism: In 1997 38 percent, and in 1999 28 percent of variance is explained by low individualism (table A134, page 293).

Another interesting financial aspect is terms of payment between companies, which also vary across cultures. To explain variance, we use data of 1996¹, comparing the average agreed number of payment days and the average actual payment days. For both, variance is explained by large power distance (47 and 54 percent). Late payment in large power distance cultures may be related to centralization and low degree of delegation: The boss must see everything and sign payments himself.

4.8. VALUES

The final section of this chapter gives an example of stability or divergence of values and comparison of values worldwide and in Europe. With respect to values, we find that Europe is not more homogeneous than a group of countries worldwide. In chapter 5, value domains are described, including values relevant for consumption and consumer behavior.

4.8.1. General life satisfaction

One example of strong evidence of stability or even divergence of values, is of general life satisfaction of people. From 1973 onwards, Eurobarometer has asked questions about people's general life satisfaction. The question asked is: "On the whole, are you very satisfied, fairly satisfied, not very satisfied or not at all satisfied with the life you lead?" The percent answers "very satisfied" are used for calculations. For three different numbers of countries and time spans, the coefficients of variation are calculated. In the group of 8 countries, between 1973 and 1984, there is no change. Between 1985 and 1994, for 10 countries, values diverge: mean divergence per year is 1.03 percent. Between 1996 and 1998, for 13 countries, mean divergence per year is 1.06 percent. Also, the young Europeans are not different from the general population. This is confirmed by the correlations between culture and data on life satisfaction as measured among young Europeans (Table A135, page 294).

This consistent difference between countries with respect to people's perception of well being is reflected in all questions referring to people's satisfaction and expectations. Over time these differences are not disappearing. From 1982 onwards, there is a consistent relationship with uncertainty avoidance. In cultures of weak uncertainty avoidance people are more satisfied with life than in cultures of strong uncertainty avoidance. In most years, over 60 percent of variance are explained by uncertainty

¹ As published in NRC Handelsblad, May 8, 1997

avoidance (table A136, page 295). Other data confirm this relationship. From the Eurostat Annual Report 1996 data are used measuring people's satisfaction with work, free time, financial situation, housing and perceived health (10 countries). Although income explains satisfaction with free time, financial situation and housing, these elements of life satisfaction are also negatively correlated with weak uncertainty avoidance (free time: $r = -.59^*$; financial situation: $r = -.67^*$; housing: $r = -.56^*$), and 72 percent of perceived health, an aspect of general life satisfaction, is explained by uncertainty avoidance (table 137-138, page 295). When perceived health is not good, people will also spend more on health care. Health care expenditures also correlate with uncertainty avoidance (see page 128).

4.8.2. World Values Survey

From the World Values Survey, a study of values conducted in 43 societies between 1990 and 1993, and reported by Inglehart et al. (1998), we selected a total number of 49 values thought to be relevant for consumer behavior in order to compare the coefficients of variation worldwide and in Europe (the value statements are described in the appendix, pages 296-298). Worldwide for only 26 countries all values are available. The 49 values are grouped as feelings/attitudes, motives/needs, norms/morals and values related to the environment. For each group the coefficients of variation are averaged for 26 countries worldwide and Europe 15. Comparison shows that variance in the group of countries worldwide is similar to variance in Europe. Table 4.12 presents the averages. CVs of separate values to be found in tables A139-A142, pages 298-299.

Table 4.12. Average CVs for four types of values worldwide and Europe 15

	Worldwide 26	Europe 15
Feelings/attitudes (18 values)	.31	.28
Motives/needs (12 values)	.30	.26
Norms/morals (15 values)	.29	.29
Attitudes to environment (4 values)	.20	.23

Worldwide, of the 49 values, 40 are significantly correlated with one or more of Hofstede's cultural dimensions. Regression analysis shows that for 35 values one or more cultural dimensions are predictors. For Europe, 38 values are significantly correlated with one or more of the cultural dimensions while the cultural dimensions are predictors for 33 values (tables A143 - A150, pages 299-302).

4.9. SUMMARY OF FINDINGS

Our findings are summarized in several ways. (1) For each of the three country groups, the results of time series calculations are presented by convergence, stability and divergence. (2) The three country groups are compared with respect to the degree of homogeneity of product categories. (3) The influence of time on convergence-divergence is analysed. (4) Several patterns of convergence and divergence are distinguished and discussed. (5) A few conclusions and phenomena are presented.

4.9.1. Convergence-stability-divergence

In the tables 4.13, 4.14, and 4.15, the areas of convergence and divergence are summarized for the three groups of countries. As for Europe more data for more areas are available than for the groups worldwide and developed 26, table 4.13, for Europe, is more comprehensive than the other tables. We see that in some cases convergence takes place in all groups, in other cases groups vary. While in one group convergence is found, in another we find stability or divergence. The areas that vary are in *Italics*.

Table 4.13. Worldwide: Convergence, stability and divergence

Convergence	Stability	Divergence
Urbanization	<i>GNP/capita</i>	
Education		
Female share of labor force		
Passenger cars/1,000 pop		
Telephone main lines/1,000 pop		
TV sets/1,000 pop	<i>Newspaper circulation</i>	
<i>Radios/1,000 pop</i>	Share adspend newspapers	
Total adspend per capita		
Share adspend magazines		<i>Food, % HH spend</i>
Share adspend TV		<i>Clothing, % HH spend</i>
Share adspend radio		<i>Fuel & power, % HH spend</i>
Transport & com % HH sp		<i>Health, % HH spend</i>

Table 4.14. Worldwide, developed countries: Convergence, stability and divergence

Convergence	Stability	Divergence
<i>GNP/capita</i>		
Urbanization		
Education		
Female share of labor force		
Passenger cars/1,000 pop		
Telephone main lines/1,000 pop		
TV sets/1,000 pop	<i>Newspaper circulation</i>	
<i>Radios/1,000 pop</i>		
Total adspend per capita		Internet hosts/10,000 pop
Share adspend magazines	Share adspend newspapers	
Share adspend TV		
Share adspend radio		
Transport & com % HH sp	<i>Clothing, % HH spend</i>	<i>Food, % HH spend</i>
<i>Fuel & power, % HH spend</i>		<i>Health, % HH spend</i>
		Leisure, % HH spend

Although worldwide incomes do not converge, in the developed world they do. Converging incomes are the cause of all instances of convergence at macro level except expenditure on health and medical care. With wealth comes technological advancement, causing penetration of transport and communication infrastructure in all three groups of countries: Convergence of cars, telephone main lines, TV sets, the percent of private consumption spent on transport and communications and adspend. For the other product areas, not directly linked with economic development, the three country groups vary with respect to convergence, stability or divergence. The pattern fits the macro-micro dichotomy: At macro level convergence takes place, but at micro level we find divergence. Our findings also confirm the phenomenon that convergence at macro level masks divergence (Inkeles 1998:41).

Table 4.15. Europe: convergence, stability, divergence		
Convergence	Stability	Divergence
<i>GNP/capita</i>		
Urbanization	Housing	
Education		
Female share of labor force		
Passenger cars/1,000 pop	Car bought new	Three cars owned
	Knowledge engine size	
		<i>Newspaper circulation</i>
		Press consumption
		Book readership
Telephone main lines/1,000 pop		
TV sets/1,000 pop		Viewing time
		<i>Radios/1,000 pop</i>
Total adspend per capita		
Share adspend magazines	Share adspend newspapers	
Share adspend TV		
Share adspend radio		
Consumer electronics-audio		
Electrical household appliances		
Camera owned		One, two or three cameras
Frequent use of camera		
Three plus watches owned	One or two watches owned	
Stocks & shares	Use frequency of credit card	Savings
Mutual funds		Invest in precious metals
Private pension plans		
<i>Food, % HH spend</i>		<i>Clothing, % HH spend</i>
Transport & com, % HH sp		<i>Fuel & power, % HH spend</i>
<i>Health, % HH spend</i>		Leisure, % HH spend
		Furniture, % HH spend
Alcohol consumption	Fish consumption	Cigarette consumption
	Jams & preserves	Milk consumption
	Soft drinks	Ice cream consumption
	Mineral water	
		General life satisfaction

Examples of convergence are in particular in the technology category. Ownership of technological goods and services is linked with income, and in the developed world it converges with converging incomes. How people use technology varies. These differences are stable or they diverge. So, although socio-economic variables, durables

and technology at macro level as well as some aspects of consumption of non-durables at macro level are converging, much of consumption at micro level is not converging or even diverging. The cause of this is the fact that peoples values are not converging, and values influence consumption.

4.9.2. Heterogeneity versus Homogeneity.

With respect to the macro variables, there is more homogeneity, both worldwide and in Europe, than with respect to the micro variables. Generally, it can be concluded that there is greater homogeneity in Europe than worldwide, but the differences vary by category. With respect to the product constellation of the means of the new economy, the gap between the developing world and the developed world is increasing along with stable income differences. Table 4.16 summarizes the differences between the groups of countries worldwide, developed 26 and Europe 15, by presenting the average coefficients of variation for a number of categories.

Table 4.16. Worldwide heterogeneity versus regional homogeneity.			
Categories	Average coefficients of variation		
	Worldwide	Developed 26	Europe 15
Macro socio-economic variables	.43	.26	.18
Telephone main lines/1,000	.64	.26	.17
Passenger cars/1,000	.79	.37	.18
TV sets/1,000	.50	.28	.11
Newspapers/1,000	.78	.50	.53
Radios/1,000	.64	.42	.36
Communication means new economy	1.12	.70	.62
Adspend, total and distribution by media	.57	.44	.40
Structure of private consumption	.53	.50	.46
Food, 18 categories	.92	.76	.57
Soft drinks	.58	.37	.29
Beverages, 6 categories	.95	.80	.72
Personal care products, 8 categories	.73	.53	.42
Household cleaning products, 3 categories	.51	.36	.24
All OTC health care products	.95	.57	.44
Real jewelry	.72	.66	.66
Cigarettes	.52	.37	.31
Pet foods	1.01	.74	.54
<u>Values World Values Survey</u>			
Feelings/attitudes (18)	.31		.28
Motives/needs (12)	.30		.26
Norms/morals (15)	.29		.29
Attitudes toward environment (4)	.20		.23

For all categories, the most recent years are used, varying between 1994 and 1998¹.

¹ The macro variables of table 4.1. are pulled together. Telephone main lines, passenger cars, TV sets, radios and newspapers per 1,000 are taken separately. The communication means of the new economy (five categories) are pulled together (table A89). Adspend and distribution by media are pulled together (tables A48 - A52). The various percents of structure of consumption are pulled together (table A57). The food categories are of table A71 and the beverage categories are of table A82. Household cleaning products are of table A129. The personal care category and other separate categories are of table A118. A number of values, from the World values Survey could be compared worldwide and for Europe. These are from tables A139 to A142.

Comparison of the average CVs in table 4.16 makes us conclude that Europe is the most homogeneous of the three groups of countries. In line with our convergence findings, greatest homogeneity is at the macro level, for the socio-economic variables and telephone main lines, passenger cars and TV sets. These are the variables that are directly related to income. It looks like for these variables a ceiling of convergence has been reached at CV levels between .11 and .18. For only one category, Europe's average CV is the same as of developed countries worldwide: Real jewelry. For newspapers, Europe is less homogeneous than the group developed 26. With respect to values, variance worldwide is not much larger than in Europe.

The next greatest homogeneity in Europe is for household cleaning products (.24), soft drinks (.29) and cigarettes (.31). Soaps, soft drinks and cigarettes are obviously the most globalized product categories. These categories are the ones dominated by the oldest and largest US multinational companies who have pioneered global marketing and advertising: Procter & Gamble, Coca-Cola and Marlboro.

For several categories that have relative homogeneity in Europe, the convergence trend has changed into a divergence trend. Examples are radios per 1,000 population and numbers of cigarettes consumed. Radio ownership converged until 1970 and diverged after that year. Cigarette consumption in Europe converged until 1992 and then diverged.

From our analysis we also conclude that several ceilings of convergence exist. In Europe, the most economically homogeneous area, there is a ceiling of convergence for technology between .11 and .18, which parallels the lowest CV of GNP per capita at PPP, reflecting spending power. CVs of GNP per capita at PPP in Europe were .19 in 1991 and .15 in 1998. The lowest CV for any other product category is .24 (household cleaning products), while the highest CV is .72 (beverages).

4.9.3. The time factor

For many products, in the economically advanced countries a ceiling of convergence is reached with a certain level of wealth at a certain point in time. For the "old" products, most advanced countries reached such ceilings long ago, leaving no room for further convergence. Examples are milk and mineral water consumption and the "old" media radio and newspapers.

For international marketing, the challenge will be to calculate the ceiling of convergence for new products. This is expected to run more or less parallel to the point where income stops to be a predictor for variance and cultural factors become predictors instead. In Europe, for cars it took approximately 40 years for income to disappear as a predictor, taking 1950 as the year when cars started to penetrate in Europe. For cars, for TV sets as well as for newspapers, 1990 was the last year when income was the predictor. So for penetration of TV sets in Europe, it took 30 years if we take 1960 as a starting year¹. For radios, also 1990 was the year when income was no predictor anymore. For newspapers in Europe, already in 1960, cultural factors were predictors, but only in 1996, income did not play a role anymore.

¹ In the Netherlands only in 1965 did two thirds of households have black and white television.

Table 4.18 presents for Europe ceilings (lowest c.v. and year of lowest c.v.) and thresholds (threshold year when income stops to be a predictor and point in time when cultural variables start to contribute to explain variance, either as first predictor or additional to income) for selected categories. Various time spans are involved. If the year when cultural factors first contribute also is the first year of the time span used for the category, it is marked with a *. In cases where income is the predictor through all years, we mark "income all years". In cases where income never is a predictor, we mark "income never".

	Ceiling		Threshold of income's influence	
	CV	Year	Year income no pred.	Year cultural predictors
Telephone main lines	.17	1998	Income all years	1980
Passenger cars	.18	1990	1990	1970
TV sets	.11	1998	1990	1960*
TV share adspend	.44	1998	Income (-) all years	1981*
Radio's	.33	1985	1985	1960*
Radio share adspend	.45	1998	Income never	1988*
Newspapers	.45	1975	1975/1996 ¹⁾	1960
Newspaper share adspend	.36	1995	1988	1981*
Structure of private consumption, percentages				
Food	.21	1991	1983	1983
Clothing/footwear	.19	1990	Income never	1970*
Fuel/power	.26	1989	Income all years	1983
Medical care	.65	1995	Income never	1950*
Transport & Com.	.11	1992	1976	1976
Leisure	.23	1986	Income never	1970*
Furniture	.14	1987	1983	1983
Consumption of milk	.31	1990	Income never	1970*
ice cream	.22	1985	Income never	1985
cigarettes	.23	1989	Income never	1983*
alcohol	.24	1990	Income never	1983*

¹⁾ For newspapers, income stops explaining variance in two time periods (see table A4.39).

4.9.4. Patterns of convergence and divergence

Table 4.16 shows that there is not one pattern of convergence or divergence, but there are various patterns. The forms distinguished by Inkeles (1998:38-43) are reflected in the various patterns found in our study.

4.9.4.1. Convergence masks diversity or divergence

In many cases, most of all convergence at the macro-level, convergence masks diversity. As Przeworski and Teune (1970:55) state: "Institutional-setting variables are deceptively easy to assess, and this often leads to misleading inferences from institutions to behaviors, either of systems or individuals within them". While many researchers find convergence from macro-institutional data, our calculations demonstrate many instances of convergence masking stable differences or divergence. Penetration of telephone main lines converges, but in Europe, even among the wealthy groups, variance with respect to numbers of telephone lines per family, numbers of international calls and ownership of

mobile phones still are considerable (table A20, page 243). While the numbers of cars per 1,000 inhabitants converge across Europe, differences between countries with respect to numbers of cars per family, preferences of new or second hand cars or make and model of car are stable or diverge. With respect to the media, TV ownership converges, while convergence of viewing time stops at a certain point in time, and differences remain stable, as illustrated in figure 4.13.

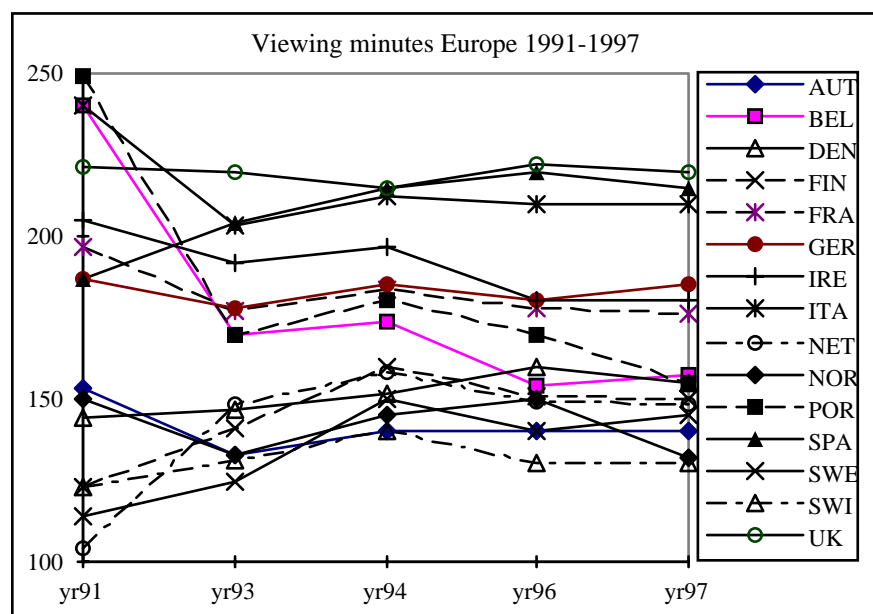


Figure 4.13. Viewing minutes in Europe: Convergence and stability

4.9.4.2. Convergence

While viewing time does not converge, penetration of television sets is a strong example of convergence. Convergence means moving from different positions toward some common point. Over time, patterns of convergence may change in divergence and return to convergence. There are various levels of convergence and in many cases convergence stops at a certain point in time.

The year a lowest CV is reached, is not necessarily also the year when income differences stop explaining variance. Also, in some cases cultural factors, next to income start explaining variance very early in time. Examples are ownership of passenger cars, radios and TV sets. Figure 4.14 illustrates convergence of TV sets per 1,000 population in Europe between 1960 and 1997.¹

¹ The graph in figure 4.4. suggests - in contradiction to the c.v.'s over time - convergence-divergence-convergence instead of continuous convergence. This is because the diagram shows absolute numbers whereas the CV is a relative measure.

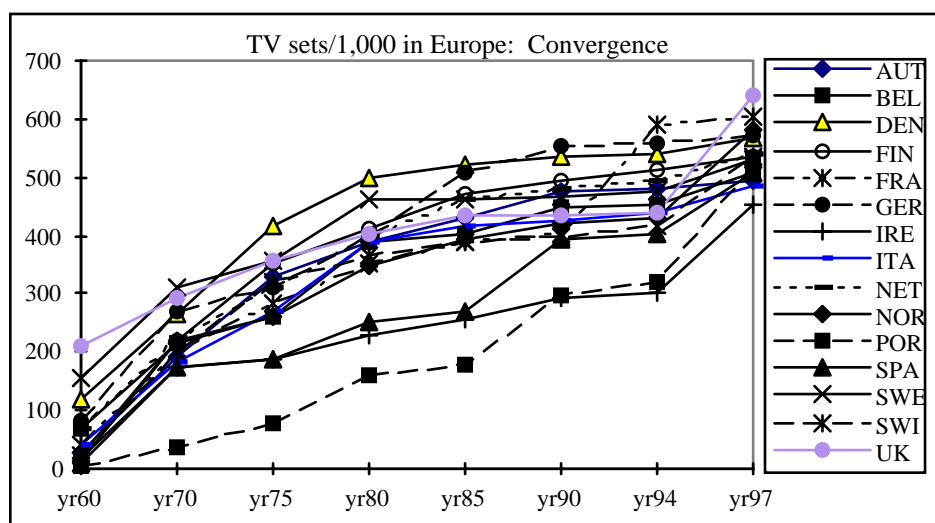


Figure 4.14. TV sets per 1,000 population in Europe

4.9.4.3. Convergence, stability, divergence and crossover

Convergence does not always mean movement in the same direction and crossover effects may take place, causing stability or change from convergence to divergence or the other way round. Alcohol consumption and cigarette consumption are examples of convergence with crossover effects.

Convergence of alcohol consumption in Europe is largely influenced by changes in wine consumption. While the countries in the south of Europe have decreased wine consumption, in the north, consumption increases. This is the result of improved distribution systems and harmonization effects of the European Union. When a balance is reached, differences in alcohol consumption can remain stable or diverge.

Change in cigarette consumption, as illustrated for six countries in Europe in figure 4.15. is an example of crossover. Between 1983 and 1997 the main trend was a decrease of cigarette consumption, except for a few countries, such as Spain, where cigarette consumption increased. In 1987/1988 the pattern changed. In some countries, between 1987 and 1997 cigarette consumption increased, while in others it decreased.

Consumption increased in Belgium from 1328 to 1568 cigarettes per person per year and in the Netherlands from 1042 to 1245 cigarettes per person per year. In Sweden consumption decreased from 1431 to 893 cigarettes per person per year and in Finland from 1562 to 817 cigarettes per person per year.

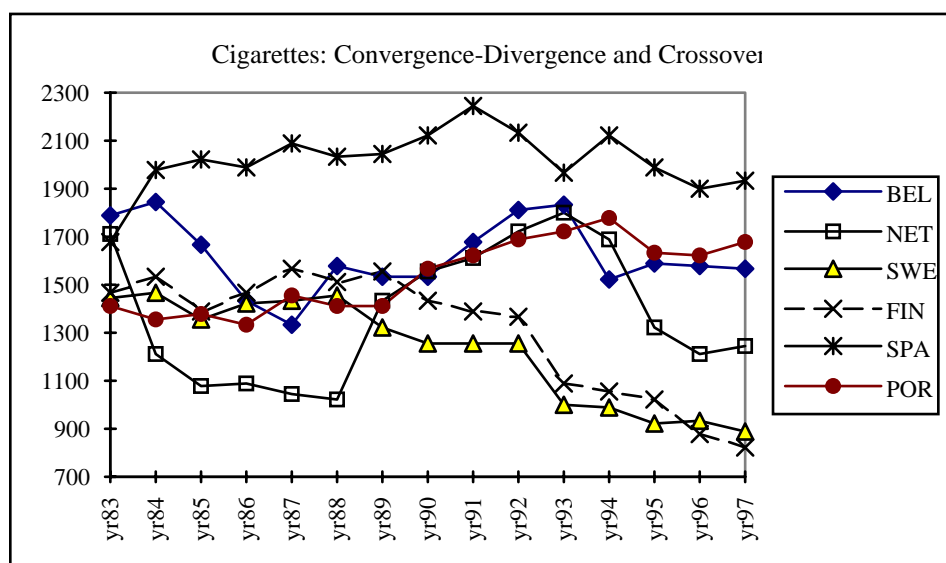


Figure 4.15. Cigarette consumption in six countries in Europe: Crossover

4.9.4.4. Thresholds of convergence

There may be thresholds that are more important than absolute differences. For food and beverages, the threshold is relatively high. For technology at macro level we found a threshold as low as .11. Newspaper readership, which may have converged a century ago, has reached a level of no further convergence at .45 and during the past half-century the differences have remained stable with some instances of crossover.

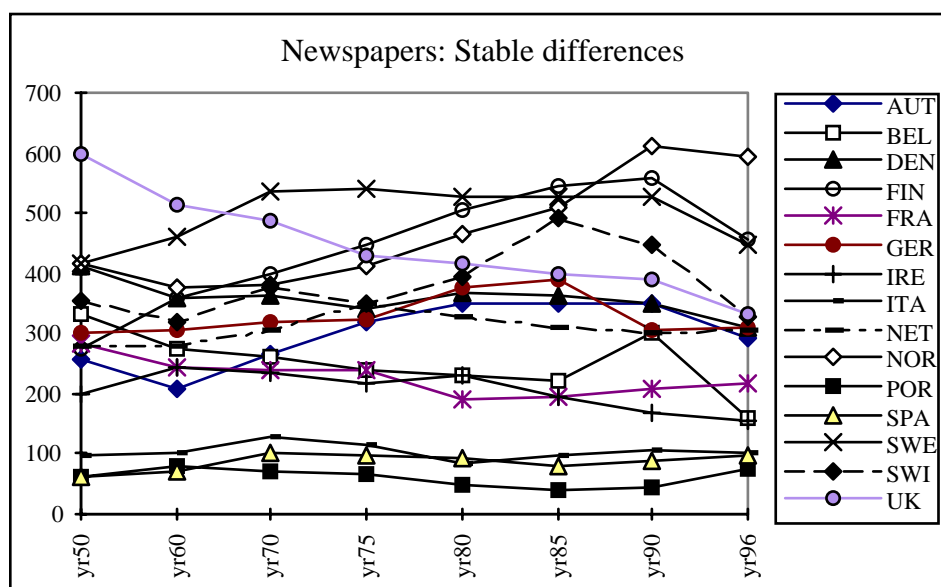


Figure 4.16. Newspapers: Stability and crossover

The chart in figure 4.16. shows crossover around 1980-1985. In Europe newspapers converged until 1980 after which year there is stability or divergence. This is likely caused by the growth of commercial television at that time. In the - at that time - still

relatively poor countries such as Portugal and Spain, television became a strong medium at the cost of newspapers, more than in the more wealthy area of Europe. More than newspapers, television is (negatively) related to income. For newspapers the relationship with income disappears altogether and the cultural variables become the only predictors.

4.9.4.5. Parallel change

Parallel change happens when movement is in one direction but differences remain more or less the same. This phenomenon is mostly found in the food category, but also in buying motives and attitudes.

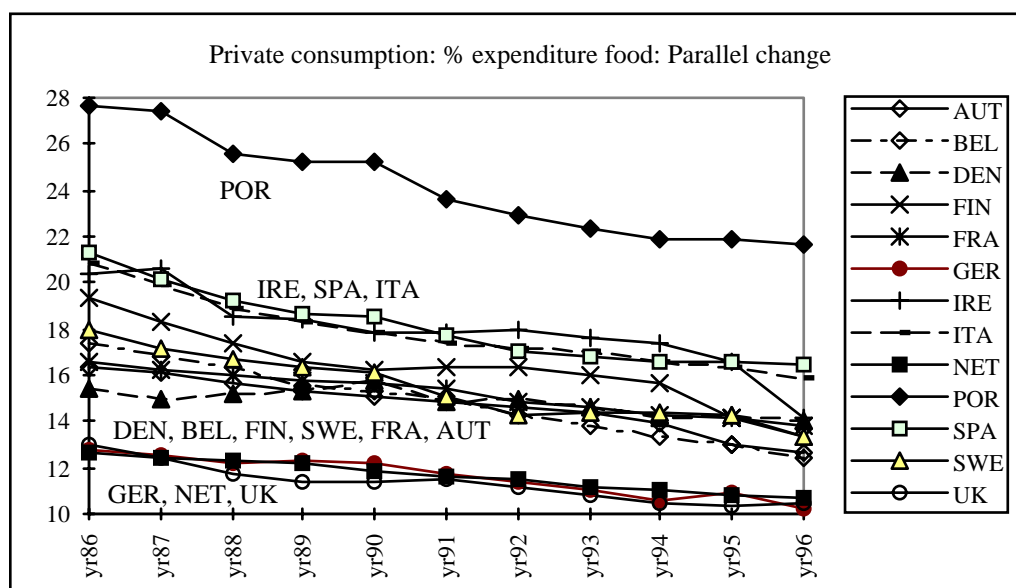


Figure 4.17. Percent expenditure on food: Parallel change

Many examples of this phenomenon are found in Europe, at the micro level. Examples are mineral water consumption and preferences for new or second hand cars. In such cases, cultural factors are the constant predictors for differences between countries. Figure 4.17. illustrates the differences between countries with respect to the percent of private consumption spent on food.

According to Engel's law, with increased wealth, the percent spent on food decreases. We see indeed that this is happening in all countries, but the differences between countries remain stable. They are related to the degree of individualism. A clear case of how Engel's law works is Ireland where national income grew fast in the past years and the percent decreased faster than in Portugal, Italy and Spain (collectivist). The percent spent on food of Ireland converged with the other individualist cultures while the development in the collectivist cultures remained parallel. A conclusion can be that Engel's law applies better to the individualist cultures than to the collectivist cultures, where the percent spent on food is likely to remain at a higher ceiling than in the individualist cultures.

4.9.4.6. Divergence

Pure divergence, meaning continuous movement away from a common point at the start is a rare phenomenon. More often convergent trends are followed by divergence. Examples of pure, consistent divergence in Europe are radio ownership, the percents of private consumption spent on fuel & power and on leisure between 1985 and 1996. Examples of divergence are illustrated in figure 4.18 (radios per 1,000 population) and 4.19 (percent expenditure of private consumption on leisure).

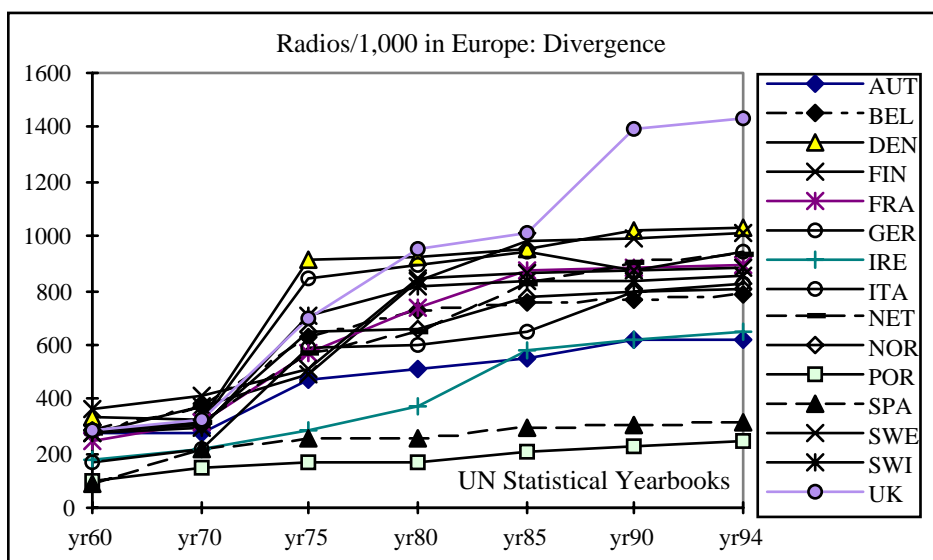


Figure 4.18. Radios: Divergence

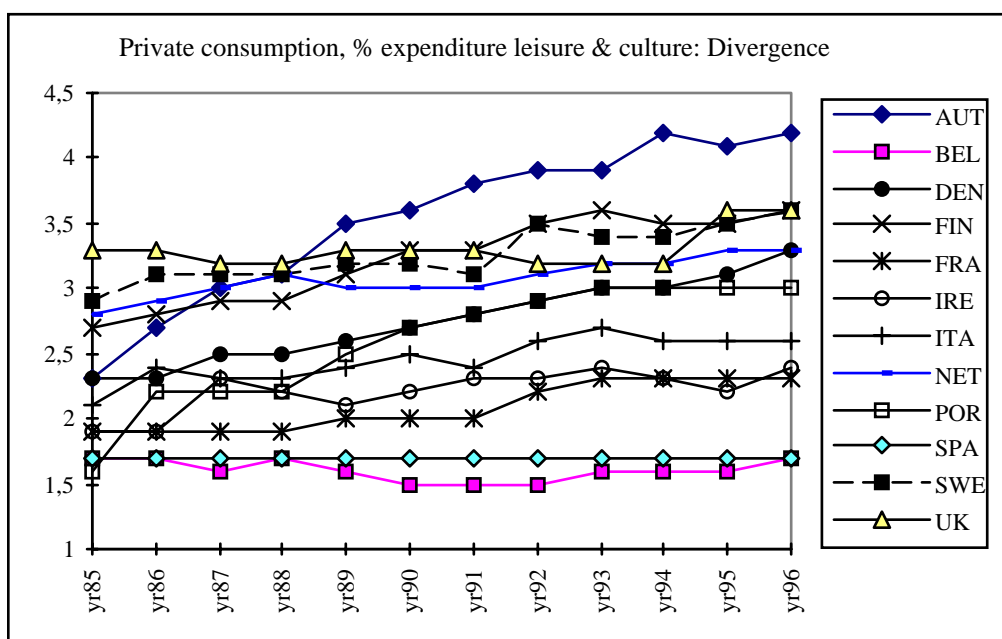


Figure 4.19. Expenditure leisure and culture: Divergence

Change patterns are likely to vary by subsystem and within subsystems. Some products or sub-categories may converge, while this is not representative for the category. The example mentioned before is soft drinks. Some types of food (hamburgers and pizza's) and some types of clothing (jeans and trainers) may serve as examples. The strategic fallacy is interpreting these examples as representative for the category. Although convergence takes place for some clothing categories, such as for sports and leisure, general tastes for clothing styles are not converging as C&A discovered. A few years after having standardized their clothing following continental European fashion styles, they had to close all shops in the United Kingdom (NRC Handelsblad June 15, 2000). Some food types such as pizzas may diffuse fast, but most food habits change more slowly or not at all.

4.9.5. What is newest changes fastest

At the macro level, what is newest converges fastest, what is old does not converge and if it changes at all, it changes slowly, too slow to be visible during a lifetime of human beings. This is best demonstrated by stability or divergence of the distribution of private consumption over the various activities and food consumption. This is consistent with the "duration-of-usage" phenomenon as described by Van Mesdag (2000). The longer the duration of usage of products, the more specific customs and styles of countries are, the larger the differences and the longer it takes to change them. According to Van Mesdag, this duration-of-usage phenomenon is not confined to food. It is clearly recognizable in things like the visual arts, music, architecture, in language, social behavior and modes of dress. In common with eating and drinking habits all these things have evolved over very long periods of time. Products with a long duration-of-usage, like bread, vegetables and fish still have widely divergent consumption patterns, while consumption of some recent industrial food types may converge (Van Mesdag 2000:82-83).

Examples of this phenomenon are in the media - how radio ownership and press consumption diverge after years of convergence, as compared with the consistent trend of convergence of penetration of television sets. Trends of the old media can be used to predict the future for the new media such as the Internet and WAP technology. They may temporarily cannibalize the old media, but over time, balance is likely. The various technological products of the new economy are still in the process of convergence, but time spans may become shorter and with emerging new technology, a ceiling of convergence is likely to be reached at shorter time spans.

Food products are an example of products with longer time spans operating and for many products the differences are stable, even in economically advanced societies. For many food products, most countries reached a threshold long ago and the differences remained more or less the same. This stability may be explained by collective memory. While there are no objective economic or climatic explanations for differences in milk consumption in Europe (penetration of refrigerators is high), collective memory is that milk is a perishable product and trust in food products like milk is lower in climates of higher temperatures. This distrust translates to other milk-based products such as ice cream. So values related to staples serving as basic ingredients of modern processed food, are extended to modern processed food products. New products related to old ones are likely to follow similar patterns as the "old" ones, unless a completely new usage domain

is found. Over time, climate as explaining variable is replaced by cultural variables that may be derived from climate.

Although there is not one pattern for all consumption, but varying patterns for different product categories, we conclude that at longer or shorter time spans, there are periods of convergence that stop at a certain ceiling, and are likely to be followed by periods of divergence. We have demonstrated that there are a number of variables, such as income, culture, degree of homogeneity of countries and category, which may be included in a mathematical model to predict the moment of convergence or divergence of new products¹.

4.9.6. No value change

Values do not change with changing circumstances or with the movement from modern to postmodern or postmaterialist societies, as Inglehart (1997) postulates. According to Inglehart, postmaterialism emerges with economic security and includes the rise of new values and lifestyles with greater tolerance of ethnic, cultural and sexual diversity and individual choice concerning the kind of life one wants to lead and rejection of modernity including science and technology, in short: Substitution of material goals by expression of psychological goals.

Inglehart (1997:359) lists countries on a scale of postmaterialist values, on which China is lowest (7) and Finland is highest (33). When his country scores on this dimension (Europe 15) are correlated with Hofstede's cultural dimensions and GNP/capita, only one significant correlation is found with individualism ($r = .47^*$). One would expect that postmaterialist values would correlate negatively with ownership and buying of all sorts of technology and luxury goods such as cars, internet usage, luxury drinks, jewelry, expensive watches and the like. Correlation analysis between postmaterialist values and 104 of such items delivered only eleven significant correlations, which may be due to chance. Of these eleven, six negative correlations were items that are also negatively correlated with individualism². Only one negative correlation that may be meaningful is a negative correlation between Inglehart's postmaterialist values and responses to the question on potential use of e-commerce, by EMS respondents ($r = -.72^{***}$). This exercise demonstrates that the label "postmaterialist" is not useful for our purposes, so we prefer the term "postscarcity society" (Giddens 1991:798), as it demonstrates the decreasing influence of income on consumption and consumer behavior.

Our findings confirm that there are no new values. With changing circumstances "old" values are expressed in different ways. In the new post-scarcity society, the "old" values become manifest in consumption and consumer behavior. An example is shopping behavior. The degree of role differentiation are expected to influence shopping behavior: In the masculine cultures, males will be less involved in daily food shopping than in the feminine cultures. With urbanization and increased wealth daily food shopping will be

¹ A challenge for econometricians would be to calculate a formula for the time factor, ceilings and thresholds for convergence-divergence of new products. The ability to calculate patterns of convergence and divergence of consumer behavior across cultures would be an asset to international marketing. Unfortunately this is beyond the scope of our study.

² Heavy spending on cosmetics, skin care and perfume by the mostly male target of EMS.

shared more between men and women in the feminine cultures than in the masculine cultures. For 15 countries in Europe (Eurodata 91) there is a significant correlation between percent 'main food shoppers are women' and masculinity ($r = .55^*$). When the more traditional countries Spain and Portugal were excluded from the calculation, significance becomes much stronger ($r = .77^{***}$). Thus, along with modernization and economic development, latent cultural differences become manifest.

People's values, attitudes and behavior are surprisingly stable in time. Also the new means/new media are used to continue doing what people are used to do and what they like most, as is demonstrated by the influence of culture on the use of the Internet. When new media emerge, be it the Internet or mobile phones, they will be adopted for the type of activity people are used to and like most. These activities vary by culture. The stability of cultural values is in contrast to what economists expect that with converging incomes, cultural values and habits will also converge. The opposite is true, cultural values are stable and with converging incomes they will become more manifest. When people possess more or less enough of everything, they will spend their incremental income on what most fits their value pattern. Americans will buy more cars, the Dutch will buy more luxurious caravans and the Spanish will eat out even more than they do now.

4.9.7. Hierarchies of explaining variables

According to Parker (1997), climatic differences are the prime explaining factor for most of human consumption. But climate includes direct and indirect effects. Without understanding the difference between this direct and indirect effect, climate is not a useful variable for explaining consumption differences.

We found that worldwide (table A72, page 266) climatic differences explain between 20 and 52 percent of variance in consumption of seven out of eighteen food products. These are not necessarily the "old" food products such as meat, rice and milk. Also for confectionery, climate is the predictor. In such cases climate has a direct function as explaining variable: It explains differences in the need for energy. Climatic differences also have caused economic and cultural differences (Geertz 1973; Hofstede 1991). There is a hierarchy between the three types of variables. Climate drives culture, which in turn drives wealth, which in its turn drives culture in circular causation. For the purpose of understanding consumption differences, this hierarchy must be taken into account. Differences between countries with respect to some food categories can be directly related to climate (e.g. consumption of milk and fruit juice), while others can only be indirectly explained by climate. The direct effects of climate on food consumption have disappeared in postindustrial societies, where food that was perishable (e.g. milk) can be kept in refrigerators and food that was only available in the warm climates (fresh fruit) can be distributed to areas where it was not available. Over time, the cultural variables have become better predictors than climate. The cultural variables are more useful for explaining the differences than climate.

4.10. Conclusions

Our analysis of the previous sections can be summarized in a few law-like generalizations, which have consequences for theory and practice of international marketing and advertising. We will further discuss these generalizations in chapter 5.

1. Worldwide as well as in the developed world there are large differences in consumption, usage and ownership of products as well as in motives for using or buying them. The lowest variance is found at a coefficient of variation of .11. In economically homogeneous areas (e.g. Europe) variance of consumption of many product categories is smaller than in economically heterogeneous areas. Even in economically homogeneous areas, the differences are large enough to pay attention to. In Europe, variance of ownership of the communication means of the new economy at macro-level is large, the coefficient of variation is .62. In the homogeneous areas the differences often can not be explained by income. In most cases variance can be explained by cultural factors.
2. Convergence masks divergence. Convergence data at macro level mask diversity or divergence at micro level. Macro-level convergence of product ownership and consumption is an income-related phenomenon. With increased wealth, penetration of income related product categories converges across advanced economies. At the same time, increased wealth leads to divergence of consumption at the micro level.
3. What is new changes fastest, what is old changes slowest. Variance of consumption of "old" products is not likely to change during our lifetime. New technology converges fast, but only at the macro level. At micro level soon after introduction of new products, usage starts to differentiate and can mainly be explained by values of national culture. The new media are used to continue doing what people are used to do and what they like most. Modern processed food keeps carrying the values of the "old" generic food ingredients.
4. A few global products are not representative for globalization. A few homogeneous product categories are not representative for all other product categories and a few global brands are not representative for the product category. Three product categories have homogenized most: soft drinks, soaps and cigarettes. These are the three categories that have been dominated by three large American multinationals.
5. Global advertising does not lead to homogeneity because there are no global values. As global advertising reflects the values of the culture where it is developed, it will work better in cultures with similar values and thus global advertising causes differences in consumption between cultures.
6. There are no "new values". With changing circumstances "old" values are expressed in different ways. In the postscarcity societies, the "old" values become manifest. New technology does not change people's values. New means of technology and media only make people do more of what they used to do.
7. Explaining variables operate in hierarchies. Climate is an indirect explaining variable for consumption of food products and ownership of technology. Other, related variables, lower in a hierarchy are better predictors for differences in consumption.

CHAPTER 5

CONSEQUENCES FOR THEORY AND PRACTICE

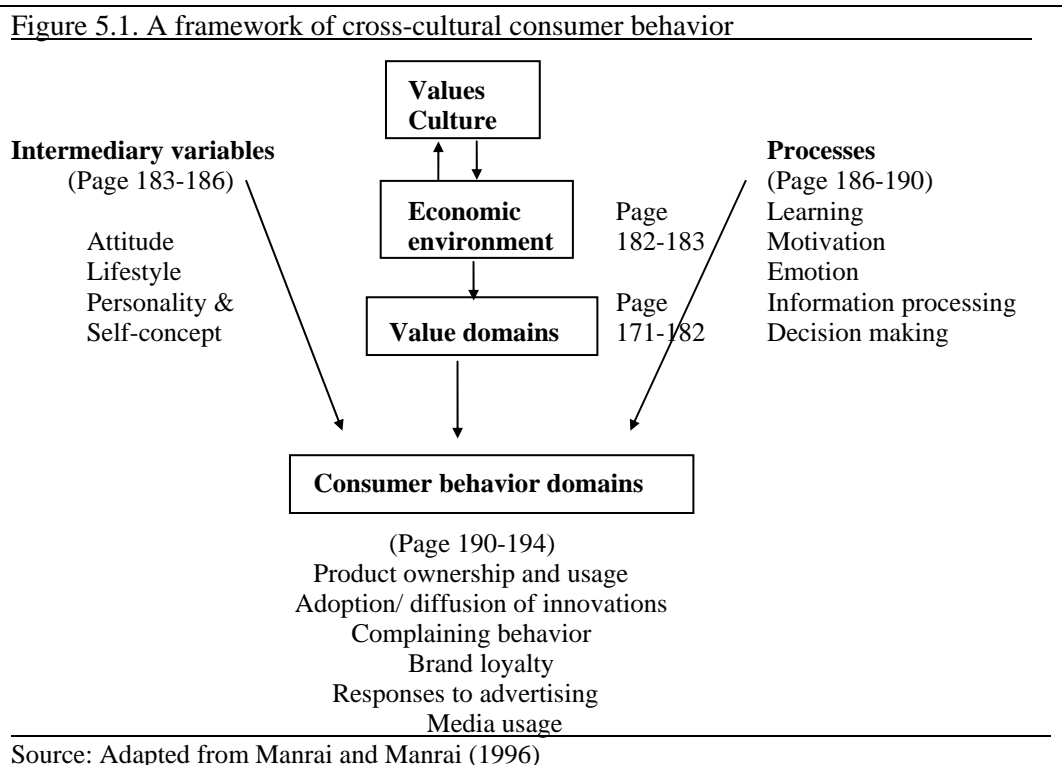
Consumer behavior is the most important area of study for marketing and advertising. Those who want to sell to or communicate with consumers must know what moves them. During the 20th century plenty of theories have been developed on what moves consumers within their cultural environment. Little has been done to compare consumer behavior across cultures. Advertisers take great pains to try to understand certain subcultures such as youth culture, knowing that they can only appeal to the young if they address them in the right way. When it comes to addressing adult women or men of different national cultures, many advertisers think one standard message is sufficient. They forget that markets are people and become product-oriented. One of the causes can be that in consumer behavior theory, culture is merely viewed as an environmental influence on consumer behavior, although culture influences the central values of people. Modern marketing uses these central values for developing effective marketing and advertising programs. When developing programs for global markets, marketers don't realize that programs reflecting their own values are likely to be less effective in markets where people have different values.

In chapter four we have demonstrated that value differences across nations are stable and that they influence consumption and buying motives. Our findings are based on empirical evidence. This was described in chapter four. In this chapter we review the consequences of our findings for theory and practice. Doing this we follow the structure of chapter two. We follow the framework of cross-cultural consumer behavior by Manrai and Manrai that we present in chapter two (page 52-53). We describe six value domains that can be used to segment markets. We describe how our findings help improve understanding of theories of consumer behavior. Finally we give a few example of the consequences for practice.

5.1. CONSEQUENCES FOR CONSUMER BEHAVIOR THEORY

In the framework of cross-cultural consumer behavior (figure 5.1 = figure 2.2. from chapter 2) that we used for structuring our discussion of culture's consequences for consumer behavior, the central influences on consumer behavior are values, culture and the economic environment. They are located at the top in the model. They are also the core elements of consumer behavior in explaining variance between countries. We have delineated domains of culture-bound values that can be used to segment markets. These are described in this section.

Consumer behavior theory covers the elements in our framework: The intermediary variables, the processes and consumer behavior domains. Culture's influence on these elements is reviewed in this section. Our findings also demonstrate the non-universality of consumer behavior theories.



5.1.1. Culture and values: Value domains

We define value domains as clusters or configurations of values that apply to domains of consumer behavior and that are related to specific product categories or consumer activities. When economic and demographic systems converge, income and demographic variables are not the best criteria for segmenting international markets and value domains are likely to be more useful. Groups of countries can be formed according to cultural values that influence consumption of specific products. One or a configuration of dimensions can define a value domain. In chapter two, we give examples of value domains found in literature. In the following sections we describe six examples of value domains derived from our research findings. The purpose is to make our findings applicable to daily marketing and advertising practice. Further research must find empirical evidence to support the specific configurations of cultural dimensions that define the various value domains.

5.1.1.1. Purity

In chapter four we describe how variance of consumption of various food products is consistently explained by uncertainty avoidance. We find for example that consumption of milk, ice cream and all sorts of frozen foods are negatively correlated with uncertainty avoidance, while consumption of mineral water is positively correlated with uncertainty avoidance. We concluded that uncertainty avoidance includes values of purity.

There is a relationship between purity need and the degree of confidence people have

in various food products. Eurobarometer (1998) asks questions about confidence in food products. The question asked is: "For each of the following food products, please tell me if you think it is safe or not safe?" Products are bread and bakery products, fresh fruit, fresh vegetables, fresh fish, fresh meat, fresh milk, cheese, eggs, canned foods, frozen foods, pre-cooked meals and other pre-packed food. The average coefficient of variation for the answers "not safe" is .56, so variance between the 13 countries of the European Union is large. For seven of the twelve categories, variance is explained by uncertainty avoidance. Table 5.1. shows for the answers "not safe" for seven food categories the correlation coefficients with the cultural variables and the percents variance explained in regression analysis.

Table 5.1. No confidence in food (European Union: 13 countries). Answers "not safe"							
	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²
Bread	.54*	-.41	.15	.60*	-.78	UAI	.36
Fresh milk	.72***	-.31	.17	.71***	-.28	PDI	.51
Cheese	.58*	-.34	.30	.64**	-.28	UAI	.42
Canned foods	.30	-.47 ^{ns}	.41	.64**	-.24	UAI	.41
Frozen foods	.54*	-.60*	.31	.75***	-.29	UAI	.56
Pre-cooked meals	.43	-.50*	.40	.67**	-.33	UAI	.45
Other pre-packed	.49*	-.45	.29	.64**	-.46	UAI	.40

We find that the need for purity explains variance of many food products. Generally speaking, consumption of processed food is negatively correlated with uncertainty avoidance. In Europe, the correlation coefficients with uncertainty avoidance for a few categories are (in volume per capita, data Euromonitor 1996, 15 countries): Frozen food: $r = -.77***$; Frozen ready meals: $r = -.62**$; Ice cream: $-.76***$.

In chapter 3 (page 96) we describe the concept of a hierarchy of effects of culture. Historically, meteorological climate influenced food consumption. We would expect that effect to disappear in industrial and postindustrial societies where modern food processing and distribution systems eliminate the effect of climate. Modern technology should allow people to change habits and modify their attitudes. This is not so. Collective memory is so strong that attitudes and values are persistent. They have become part of national culture. They can explain persistent variance of attitudes toward modern processed food. This difference between countries with respect to the need for purity explains the aversion from genetically modified food in the strong uncertainty avoidance cultures. The strong protests against GMF originated in France, a culture of strong uncertainty avoidance. In the case of France it is reinforced by low masculinity that is related to care for the environment.

This value domain is of particular importance for food retailers and for producers of processed food. In retail, availability of fresh food will be more important in the cultures of strong uncertainty avoidance, while in cultures of weak uncertainty avoidance, focus can be more on fast food or convenience food products.

5.1.1.2. Locus of control

In chapter two (pages 47 and 63) we define locus of control as the degree of an individual's perception of control over his or her own life and world. Persons measuring low, or "externals", view themselves as having little control of outcomes in life. "Internals", measuring high, view themselves as being in control of outcomes in life. We extend this concept to the national level, suggesting that in some cultures people are more inclined to take social action to better one's life's conditions, while in other cultures people are more dependent on institutions such as authorities and governments. Triandis (1995) reported on a study among American and Soviet students in 1985, who were asked their opinion on two opposing statements: "Human beings are unable to rule themselves and their government should rule them" versus "Human beings should rule themselves, best government is least government". The Soviet students, high on power distance and uncertainty avoidance chose for the first statement, while the American students of low power distance and uncertainty avoidance chose for the second statement. We suggest that internal locus of control is more found in cultures of the configuration high individualism/small power distance/weak uncertainty avoidance. External locus of control would be more found in cultures of the configuration low individualism/large power distance/strong uncertainty avoidance.

Several findings support this suggestion. One supporting finding is the relationship between the degree of confidence in institutions and the configuration of power distance and uncertainty avoidance. The World Values Survey 1990 measures confidence in institutions (Inglehart et al. 1998)¹. The question is: "For each item listed, how much confidence do you have in them, is it a great deal, quite a lot, not very much, or not at all?" The percents answers published are of "a great deal" or "quite a lot". We use findings of confidence in the church, the press and the legal system. Similar questions about the degree of trust in institutions are asked in the Eurobarometer Surveys of 1997 and 1999. For Europe we add data on the same topics from Eurodata 1991 and EMS 1997. We also include answers to questions about the responsibility for the environment. Do people refer to the government as the responsible institution for caring for the environment, or do they think they should pay for the environment themselves and do not mind higher taxes for this purpose. Tables 5.2. (25 countries worldwide) and 5.3 (Europe) show the correlation coefficients with the cultural variables and the percents variance explained in regression analysis.

Table 5.2. Confidence in institutions worldwide (25 countries); LTO = 20 countries									
	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
<u>WVS 1990</u>									
Church	.42*	-.25	.10	-.07	-.01	PDI	.18	UAI (-)	.34
The press	.61***	-.39*	.06	.22	.59***	PDI	.37		
Legal system	-.29	.17	-.28	-.46*	-.08	UAI (-)	.21		
Environment resp. govt.	.33	-.26	.37*	.61***	-.05	UAI	.37		
Environment paid by taxes	.09	-.26	-.61***	-.29	.17	MAS (-)	.38		

Worldwide, in the cultures of large power distance the church and the press are trusted. These are the moral authorities. Trust in the legal system is negatively correlated with uncertainty avoidance and in Europe also negatively with power distance. The law

¹ Countries are: Argentina, Austria, Belgium, Brazil, Canada, Chile, Denmark, Finland, France, Germany, India, Ireland, Italy, Japan, Korea, Mexico, Netherlands, Norway, Portugal, South Africa, Spain, Sweden, Turkey, UK, USA

is (should be) independent of authorities. In Europe different or no relationship between culture and confidence in the church is probably due to secularization.

If people trust the authorities, they are likely to accept and expect more from their authorities than if people rely on the legal system. Locus of control also is about expectations of authority versus the ability of people to rule themselves. Thus, we find that reliance on the government for welfare (Eurodata 91) is positively correlated with uncertainty avoidance, which explains 32 percent of variance. In the external locus of control cultures, care for the environment should be laid in the hands of the government while in the internal locus of control cultures people feel personally responsible. In the feminine cultures people even want to pay for it themselves, via higher taxes. We find that in some cases also masculinity-femininity contributes to the distinction.

Table 5.3. Confidence in institutions: Europe 15 or EU 13 (97 & 99)

	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Church 90	.16	-.18	.53*	.18	-.22	MAS	.28		
Church 97	-.54*	-.27	-.28	-.45	-.25	None			
Church 99	-.19	-.31	-.34	-.23	-.23	None			
The press 90	.56*	-.22	-.35	.41	-.14	PDI	.32		
Legal system 90	-.56*	.23	-.52*	-.53*	-.43	PDI (-)	.31	MAS (-)	.58
Legal system 97	-.86***	.03	-.17	-.71***	-.12	PDI (-)	.74		
Legal system 99	-.86***	.05	-.33	-.68***	-.01	PDI (-)	.74	MAS (-)	.87
Welfare gvt 91	.53*	-.45*	.40	.57*	.37	UAI	.32		
Environment gvt. 90	.61*	-.56*	.54*	.75***	-.07	UAI	.56		
Environment taxes 90	-.30	.08	-.71***	-.54*	.03	MAS (-)	.51		

This distinction between external and internal locus of control can be applied to understand differences in attitudes and behavior. An example is variance in acceptance of the European single currency (Euro). Over time various surveys have measured the acceptance of a single European currency. The relationships with culture demonstrate that being for a single currency in the past decade has been a matter of external locus of control. In 1970, when the idea of a single currency was still an abstract concept, individualism explained variance. After 1990, being for a single currency was related to large power distance and/or strong uncertainty avoidance (the dimensions are interrelated in Europe). Large power distance means that people are used to others (e.g. government) making decisions for them. The opposite, small power distance includes the need for independence. The idea that the single currency is introduced over the heads of the people is something that is more difficult to accept in small power distance cultures than in large power distance cultures. This explains the strong opposition against the Euro in Denmark, a culture of small power distance and weak uncertainty avoidance. It is noticed that neither the young Europeans nor the wealthy target of EMS are very different from the mainstream in Europe in their attitudes to the single currency. Table 5.4. shows the correlation coefficients between the cultural variables and acceptance and non-acceptance of a single currency and the percents of variance explained. The data are from various sources and show similar relationships.

Table 5.4. For or against a single European currency

	INC	PDI	IDV	MAS	UAI	LTO	Predictor	R ²
For a single currency								
Reader's Digest 1970	.37	-.02	.78***	.04	-.38	.07	IDV	.60
Reader's Digest 1991	-.34	.66*	-.03	.20	.58*	.42	PDI	.44
Eurobarometer 1996	-.44	.57*	-.10	.12	.47 ^{ns}	.21	PDI	.32
Eurobarometer 1998	-.33	.50*	-.04	.21	.53*	.14	None	
EB Young Europeans 97	-.46	.37	-.37	.43	.56*	.10	UAI	.32
EMS 1997	-.48*	.56*	-.08	.40	.48*	.18	PDI	.31
Against a single currency								
EB 1996	.54*	-.54*	.16	-.38	-.57*	-.23	UAI (-)	.32
EB 1998	.58*	-.56*	.28	-.35	-.67**	-.19	UAI (-)	.44
EB Young Europeans 97	.47	-.31	.41	-.48*	-.54*	-.11	None	
EMS 1997	.64***	-.54*	.38	-.59**	-.66***	-.27	UAI (-)	.44
							MAS (-)	.63
							INC	.79

Probably also related to locus of control are people's perceptions of their own influence on their health. Eurobarometer (1997) asks questions about people's opinions on the possibility of cancer prevention. There are large, and culture-bound differences between the European countries with respect to belief in prevention. The questions are: "Do you personally think that cancer can be prevented, or not?" We selected the answer category "No". "How can it be prevented?" Answer possibilities "by a better balanced diet and a healthy lifestyle", "by regular medical check-ups".

Externals, those who are dependent on and believe in experts and authorities think that cancer can be prevented. This belief is based on trust in experts as they also believe in the use of regular check-ups. Internals believe they are able to influence their health themselves. Table 5.5 shows the correlation coefficients with the cultural variables and the percents of variance explained in regression analysis.

Table 5.5. Belief in cancer prevention in 1997, Europe 13

	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²
No prevention possible	-.34	.57*	.01	-.43	.09	IDV	.33
Medical check-ups	.68***	-.45	.19	.75***	-.03	UAI	.57
Better diet	-.59*	-.11	-.41	-.50*	-.21	PDI (-)	.34

The distinction internal - external locus of control can explain variance in attitudes and behavior of consumers with respect to a variety of products and services. Insurance products may serve as example. External locus of control is likely to make people prefer government or company pension funds while internal locus of control is likely to make people prefer individual pension insurance. In Great Britain, 75 percent of men of working age have some private-pension provision, far more than in continental Europe (Economist September 4, 1999:37). Internal versus external locus of control can also be an instrument to explain differences in social and political attitudes between countries. Figure 5.1. shows how countries can be clustered according to internal-external locus of control. This is a two-dimensional map of power distance and uncertainty avoidance. The countries in the left two quadrants are mostly individualist and the countries in the right hand quadrants are mostly collectivist, except France and Belgium that are individualist.

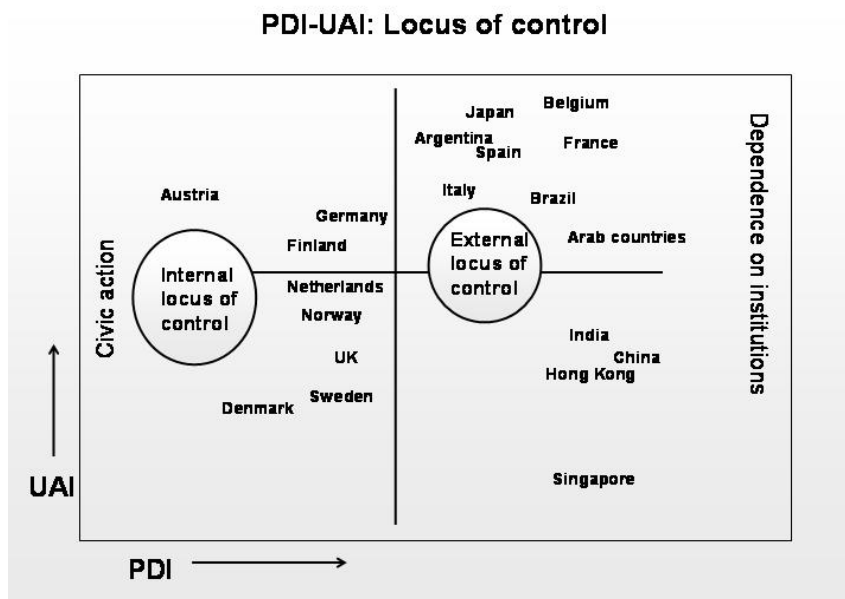


Figure 5.1. Internal-External locus of control.

5.1.1.3. Status

Because luxury articles can be used as manifestations of one's success, they are likely to be more attractive to members of masculine cultures than to members of feminine cultures. They serve as status symbols to express achievement. Table 5.6. gives an overview of the correlation coefficients between masculinity, income and a few luxury articles. EMS asks questions about ownership of various luxury articles, and asks the value of watches owned by respondents. Euromonitor provides sales data of real jewelry. We use data worldwide and for Europe.

Table 5.6. Status needs and masculinity, Europe (15 countries)		
	GNP/capita	Mas/Fem
Watches owned (EMS95)		
Value main watch under £ 100	-.70***	-.50*
Value main watch over £ 1,000	.38	.56*
More than four watches in use	-.01	.53*
Main watch is branded Swatch	.47*	.75***
Sales real jewelry (in value, Euromonitor 1996)		
Worldwide 44 countries	.34	.44*
26 developed countries worldwide (GNP/cap > \$8,000)	.25	.61***
Europe 15 countries	.18	.51*
Ownership of:		
Instant camera (EMS95)	.20	.63***
Suit or dress over £ 500 (EMS99)	.01	.68***

Logically, a predictor for ownership of cheap watches is income. In lower income countries people will have less money to spend on watches than in higher income countries. But there also is a negative relationship with masculinity. In the feminine cultures there is less need to own expensive watches for demonstrating one's success.

Ownership of really expensive watches ($> \text{£ } 1,000$) is not related to national wealth, it is only correlated with masculinity ($r = .56^*$). Having more than four watches in use also is a matter of status, in view of the correlation with masculinity ($r = .53^*$).

Using a Swatch branded watch surprisingly is very significantly correlated with masculinity ($r = .75^{***}$), although a Swatch is not a very expensive watch. It must be inverted snobbery to say that one's main watch is a Swatch.

Other items that serve as status symbols are instant cameras and expensive clothes. While the need to be well groomed is related to strong uncertainty avoidance, this does not necessarily mean expensive clothes or the latest fashion. The latter is a matter of status. Already in 1970 (Reader's Digest Survey), the percent answers "wholly true" to the statement "I dress as far as possible according to the latest fashion", correlates positively with masculinity ($r = .53^*$). Variance of sales of real jewelry (gold and diamonds) also is explained by masculinity, worldwide, in a group of 26 developed countries and in Europe. There is no relationship with national wealth. Jewelry has strong status value.

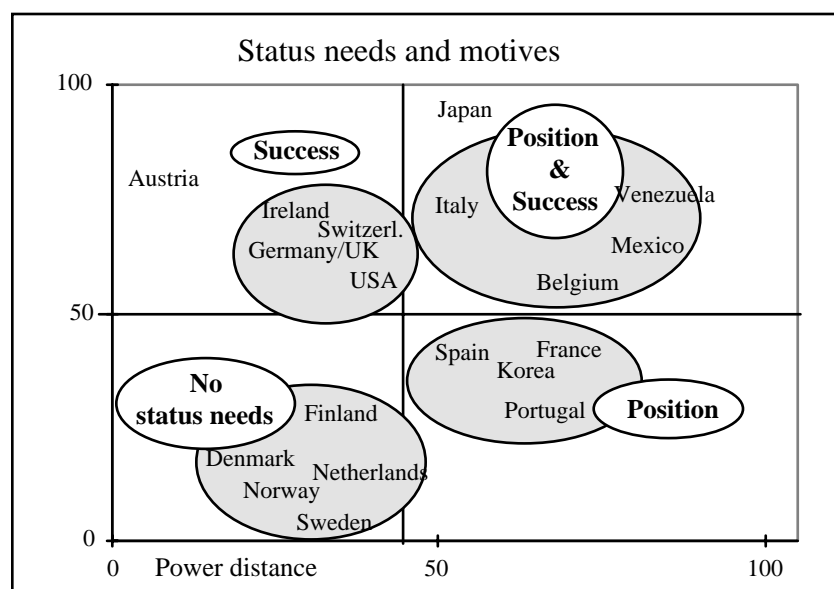


Figure 5.2. Status needs and motives

We find that variance of all sorts of luxury articles and beverages is explained by status needs to demonstrate one's success. In the United States, a masculine culture, this need for success and the search for status symbols is described by Robert Samuelson (1999) as a national mania: "a bigger house, a more exotic vacation, a niftier bike, a faster computer that separates us from the crowd". In the United States it is ambition that drives this need for status symbols. It is based on the idea that people can write their own life stories. In a 1996 survey asking people whether anyone starting poor could become rich, 78 percent of Americans thought so. And social standing is fluid (Samuelson 1999:4). This idea of mobility of social standing is related to small power distance. In the large power distance cultures positions and social status are less fluid, people have their rightful place in society. Related to this is another status need, to demonstrate one's position in society. An example of a luxury product that fulfills the desire for the latter type of status is Scotch whisky. For thirteen countries in Europe (United Kingdom, the home country, not included), there is a significant correlation between "regular consumption of Scotch whisky" as measured by EMS 1997 and power distance ($r =$

.74***). In Europe we also find significant correlations between power distance and regular consumption of vermouth or aperitifs ($r = .62^{**}$), and champagne ($r = .80^{***}$). Drinking aperitifs and champagne are obviously status reinforcing habits. Figure 5.2. shows how countries can be clustered according to the two status needs.

5.1.1.4. Active-passive in leisure: Sports and Art orientation

Leisure activities vary by culture and we find that the same configuration of dimensions that distinguishes internal and external locus of control is related to the difference between active and passive leisure. In various surveys questions are asked about leisure activities and interest in the arts. This provides insight in how people spend their leisure time.

We have found a relationship between expenditures on leisure as percent of private expenditure in Europe and small power distance (page 129). We suggest as a possible explanation that in large power distance cultures more leisure time is spent visiting family and relations than in cultures of small power distance. But there is more variation. There is a pattern across cultures that is related to the configuration of power distance and uncertainty avoidance. In the small power distance/weak uncertainty avoidance cultures sports and fitness activities are a more important leisure activity as compared to the large power distance/strong uncertainty avoidance cultures where people show relatively more interest in the arts. All sorts of activities are related to this "art-orientation", varying from interest in interior design and painting and buying books about it, to regular visits to the cinema and doing a cultural tour as holiday activity. Art-orientation goes together with less physical activity. These conclusions are based on findings of the Reader's Digest 1991 report and EMS 1997. We use the following answer categories of EMS1997: "Interest in interior design and home decoration and bought book", "interest in painting and drawing and bought book", "holidays in the past 12 months spent on cultural tour", "visited museum in own country 6-10 times in the past 12 months" and "more than eleven times in the past 12 months", "visit to the cinema in past 7 days", "actively involved in sports", "jogging, keeping fit, aerobics", "play golf" and Reader's Digest 1991: "Adults who exercise regularly", "adults who neither sport nor exercise". Table 5.7. shows the relationships with culture and the percents of variance explained.

	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Int. design 97	.46*	-.15	.38	.40	.37	None			
Painting 97	.56*	-.25	.38	.54*	-.05	PDI	.32		
Cultural tour 97	.47*	-.19	.32	.52*	.13	UAI	.27		
Visit museum 6-10 times	.25	-.51*	.17	.57*	.07	UAI	.32		
Visit museum 11+ times	.59**	-.31	.20	.57*	.32	PDI	.35		
Visit cinema 97	.77***	-.40	.22	.64***	.10	PDI	.59		
No exercise 91	.54*	-.48*	.26	.69***	.42	UAI	.48		
Reg. exercise 91	-.38	.18	-.49*	-.59**	-.52*	UAI (-)	.35	LTO (-)	.57
Active sports 97	-.61**	.07	.50*	-.30	.12	PDI (-)	.37	MAS	.62
Keep fit 97	-.52*	-.05	-.22	-.40	.05	PDI (-)	.27		
Play golf 97	-.38	.43	.11	-.68***	.10	UAI (-)	.47		

The existence of museums is not related to this art orientation, but to long-term orientation. The number of museums per million population (data UNESCO 1992, Europe, 12 countries) is negatively correlated with long-term orientation ($r = -.57^*$). An

important value of short-term orientation is tradition and what museums generally do is preservation of the past.

This art orientation is related to a complex of interests in the arts. In the large power distance and strong uncertainty avoidance cultures people acquire an art-orientation probably because schools pay more attention to the arts. This results in more interest in design, art and fashion than in the cultures of small power distance and weak uncertainty avoidance where children acquire a more active physical orientation. The art-orientation of the large power distance/strong uncertainty avoidance cultures is recognized in advertising styles (De Mooij 1998a). It also explains motives for all sorts of products related to design. An example is the importance of design as a buying motive for passenger cars (see table 5.11, page 187).

5.1.1.5. Dependence and harmony

Dependence needs (related to large power distance) and need for harmony (related to collectivism) are likely to influence much of consumer behavior because they influence the perception of self. Both influence the degree to which people rely on appearances. Strong uncertainty avoidance makes people want to be well groomed when they go out into the streets. It helps facing a threatening world. This is confirmed by the relationship between uncertainty avoidance and the percent of private consumption spent on clothing and footwear. In collectivist cultures people dress well in order to preserve harmony. Particularly for social occasions - and there are many in collectivist cultures - people buy new clothes. It is not a necessity to be dressed according to the latest fashion, which is related to status needs. This is confirmed by answers to statements in the Reader's Digest report of 1970 and in EMS. Both surveys try to measure interest in fashion by asking positive or negative confirmation to the statement "I like to dress according to the latest fashion". Other statements are "I like to be well-dressed" and "an international image of products is important". In table 5.8. we show the correlations with the answers "no" to the questions on fashion and "yes" to the need to be well dressed and international image with the cultural variables and the percents of variance explained in regression analysis.

The importance of an international image of products is also related to dependence needs in collectivist cultures. This is not only important for products in general, but also for specific products such as for cars (see also pages 186-187).

Table 5.8. Dependence and Harmony. Europe 15								
	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2 R ²
No to latest fashion 70	.57*	-.56*	.11	.59**	.06	UAI	.35	
No to latest fashion 97	.22	-.51*	-.49*	.22	-.05	IDV (-)	.26	MAS (-).48
Well-dressed 97	.39	-.60**	-.13	.48*	.16	IDV (-)	.36	
Int'l image products 97	.10	-.82***	.19	.42	-.26	IDV (-)	.67	LTO (-).78

Both dependence and harmony needs influence the perception of self. Variance of self-perception explains variance of buying motives for self-enhancing products. Independence goes along with a "me" orientation and enhancement of the self. There is concern for what the product does for the self-image. This is in contrast with dependence needs that make people buy or use products to avoid offending the social group (Woods et al. 1985). Social influence on consumption behavior is likely to vary with dependence and harmony needs. Dependence makes people identify their own self relative to those around them rather than independently, which is likely to slow down innovative behavior

of individuals. Independence means greater self-reliance and includes dynamism, seeking-out of people and openness to new things (Douglas and Urban 1977).

Variance in dependence and harmony needs is likely to explain variance of all sorts of buying motives for products involving self-image. This value domain can be applied to cluster countries for clothing, furniture, fashion, lifestyle magazines and other lifestyle products and brands. Figure 5.3. shows how countries in Europe can be clustered according to this value domain.

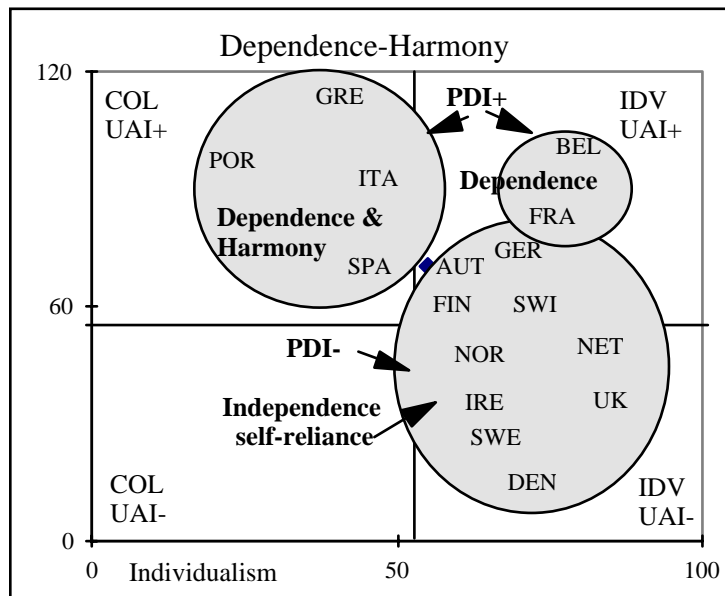


Figure 5.3. Dependence and harmony.

5.1.1.6. Quality of life

Any definition of quality of life is likely to be subjective. An objective definition relates quality of life to the material conditions of life or the objective quality of life (QoL), including possession of all sorts of material objects (Peterson and Malhotra 2000). Our definition of quality of life refers to the opposing ethos of "work in order to live" as opposed to "live in order to work" (Hofstede 1984 and 1991:93). Our "quality of life" values do not necessarily include or exclude the need for possessing material objects. It is not possession per se that counts, but the purpose and way of use. Our definition of quality of life is related to feminine values including the wish to make time spent at home as well as time spent working into "quality time". This need explains the relationship between all sorts of new technology and low masculinity and the use of the personal computer at home as measured by Eurobarometer. Weak uncertainty avoidance (53 percent) and low masculinity (an additional 18 percent) explain variance of the latter. Other indicators are access to television channels and teletext in the office, ownership of CD players and the number of nights spent in hotels, as measured by EMS. The question in EMS is "how many nights have you spent in a hotel in the past 12 months, either in your own country or abroad, mainly for personal reasons?" The answer categories are "1-5 nights", "6-10 nights", "11-20 nights", "21-30 nights", "31+ nights" or "no nights". We find that 6-10 nights is the time span to stay in a hotel with the least variance. It is not related to income or to cultural factors. All other categories are related to cultural factors. We find that

between 1995 and 1999 the relationships with the cultural variables are very consistent. In table 5.9 we show the correlation coefficients between the various time periods spent in hotels from 1995-1999 and the cultural variables and the percents of variance explained in regression analysis.

Table 5.9. Number of nights spent in hotel for pleasure/personal reasons. Europe 15												
# of nights	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²	Pred. 3	R ²
None 1995	-.45*	.45*	-.22	-.49*	.20	.30	None					
None 1997	-.38	.30	-.51*	-.58*	.22	.16	MAS (-)	.34	IDV (-)	.57		
None 1999	-.48*	.33	-.50*	-.50*	.30	.25	None					
1-5 1995	-.06	-.05	-.12	-.85***	-.23	-.29	MAS (-)	.72				
1-5 1997	-.27	.06	-.00	-.52*	-.20	-.15	MAS (-)	.27				
1-5 1999	-.13	.08	.11	-.58*	-.24	-.16	MAS (-)	.34				
11-20 1995	.19	-.16	.26	.86***	.01	.16	MAS	.74				
11-20 1997	.09	.04	.13	.84***	.29	.25	MAS	.71				
11-20 1999	.14	-.19	.09	.81***	.08	.18	MAS	.65				
21-30 1995	.29	-.18	.00	.61**	.08	.10	MAS	.38				
21-30 1997	.37	-.14	.20	.65***	.13	.27	MAS	.42				
21-30 1999	.30	-.21	.19	.75***	.09	.25	MAS	.56	INC	.70	LTO	.89
31+ 1995	.47*	-.13	.15	.66***	.23	.15	MAS	.44	INC	.66		
31+ 1997	.52*	-.24	.13	.61**	.11	.21	MAS	.37	INC	.67	LTO	.88
							Pred. 4		UAI	.93		
31+ 1999	.46*	-.29	.11	.64***	.04	.16	MAS	.42	INC	.69	LTO	.86
							Pred. 4		IDV (-)	.92		

From the data we conclude that in the feminine cultures people think up to 10 nights is enough nights away from home. Spending much time in hotels, away from home is related to masculinity. Between 37 and 74 percent of variance of over eleven nights sleeping in hotels is explained by masculinity. The negative correlations between individualism and no nights spent in hotels probably demonstrate that in collectivist cultures people spend little time in hotels for personal reasons. Collectivists prefer to stay with family or friends.

In our definition quality of life relates to low masculinity which includes valuing an enjoyable home, an enjoyable work environment and little need to separate the two. This explains the adoption of all sorts of new technology to all aspects of daily life.

Although people in feminine cultures are less competitive than in masculine cultures this is not necessarily a competitive disadvantage, because of the skill to extend their quality of life values to the work place, instead of viewing the two as mutually exclusive. The competitiveness of the masculine cultures does not necessarily always result in long-term success. Bernstein (2000:112) writes that the success of the winners in Silicon Valley has also led to gross inequality between the skilled winners and the blue-collar workers, who are also needed to run business. This is not a stimulating environment for long term development. This vision is in line with findings by Van de Vliert (2000:158), that cooperativeness and other forms of non-competitiveness, rather than competitiveness, can produce competitive advantage and make nations economically successful.

The value domain quality of life, based on one single cultural dimension, masculinity-femininity, can be used to cluster countries for the adoption of all sorts of new technology and new media used to enhance both work, home and leisure time.

5.1.2. The economic environment

Converging incomes are expected to cause better-educated and more informed consumers. Better informed consumers are assumed to make better buying decisions. This concept of a rational consumer - if it ever was a valid concept - is becoming obsolete with increased information and increased wealth. Increased availability of information does not necessarily make people take better decisions. In the next sections we discuss the concept of the rational consumer and Engel's law, a generalization that can be modified by including the effect of culture.

5.1.2.1. The concept of the rational consumer

Western, individualist economists tend to believe in the concept of a rational consumer or "homo economicus", who wants to maximize profits and aims to maximize his well being. Liberal philosophy assumes that individuals are rational and able to use reason to make personal choices (Kim et al. 1994:7). Better-educated consumers are assumed to be better informed. The Internet enhances this possibility. But there is a limit to the amount of information people can handle. An increased overload of information will not make consumers better decision-makers.

When observing the relationship between income and some new products, one may be tempted to conclude that the richer people become, the more they will spend on these products. We have seen that for some products for which investments must be made, income in the developed world is the initial explaining variable but analysis at micro level often only points at relationships with culture. For other products only cultural variables can explain variance. So greater wealth will not make people equally spend more in all countries. Even in the poorer, developing countries, possession of luxury articles is not necessarily related to wealth as they are bought because of their status value. In postscarcity societies the concept of the rational consumer is obsolete. With converging incomes across countries, the influence of income on buying decisions decreases and so does the importance of rationality in decision making. Values are the main variable to explain consumer behavior.

5.1.2.2. Engel's law's

Engel's laws (Czinkota and Ronkainen 1988:72) have tried to generalize consumer's spending patterns. They state that as a family's income increases, the percentage spent on housing will be roughly constant and the amount saved or spent on other purchases will increase. Similarly, the percent of private consumption spent on food is assumed to decrease with increasing incomes. For single countries the theory is true, but it does not explain differences between countries. In chapter four (pages 125-130) we describe how the percents spent on various elements of household consumption vary by culture and that the differences are stable over time. In the collectivist cultures, consistently people spent more on food. In the strong uncertainty avoidance cultures the percent spent on clothing and footwear as well as furniture is consistently higher than in the weak uncertainty avoidance cultures. The percent of private consumption spent on leisure diverges and is related to small power distance. The percent spent on energy diverges even more and is related to national wealth. The implication is that the gap between the rich and poor countries is becoming wider, which is likely to lead to more divergence, not to convergence. So, for cross-cultural application, Engel's laws need to be modified.

5.1.3. The intermediary variables

Our framework of cross-cultural consumer behavior includes attitude, lifestyle, personality and the self-concept as intermediary variables. We have met the self-concept in the description of the value domain dependence and harmony. In this chapter we review a few examples of how some attitudes vary across cultures and we discuss lifestyle. Such differences in attitudes can help explain variance in consumption and consumer behavior.

5.1.3.1. Attitude

As people's attitudes are guided by their values, they vary with culture. Differences in attitudes explain differences in behavior. We have found several instances of attitudes driving behavior and vice versa. An earlier discussed example is how differences in confidence in food products parallel consumption differences (page 172). Also the degree of confidence in institutions is related to behavior, as discussed in the description of the value domain "locus of control" (page 174). Here we discuss how confidence in the press drives newspaper readership and how attitudes to advertising change with economic development. We also analyse materialism to see if this is an attitude to consumption that is universal or culture-bound.

Inglehart et al. (1998) published data of the World Values Survey on confidence of the public in institutions, among others, confidence in the press. For 23 countries worldwide, the positive responses to confidence in the press correlated with power distance ($r = .61^{***}$), see also table 5.3. This finding explains the negative correlation between press readership and power distance. If one does not trust the press, one needs to read more. For Europe, data from the Reader's Digest report 1991 and Eurobarometer confirm this relationship. Trust in the press is related to large power distance or strong uncertainty avoidance (closely related for the countries in Europe). There is no relationship between the Eurobarometer data on trust in the press and power distance, but there is a relationship between weak uncertainty avoidance and no trust. Both in the early

and late nineties there is no relationship between national wealth and trust in the media. We also compare the results of trust in the press with EMS (1997) data on light reading: "read 0-2 newspapers in last interval". These correlate positively with power distance. Table 5.10 shows the correlation coefficients of various press readership measurements with the cultural variables and the percents of variance explained in regression analysis.

Table 5.10. Attitudes to the press and advertising. Europe									
	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
RD70 (Europe 15)									
Adv. essential	-.52*	.28	-.05	-.67***	-.44	UAI (-)	.45		
Adv. informs	-.14	.62**	.06	-.41	.07	IDV	.39		
RD91 (Europe15)									
Trust in press	.52*	-.66***	-.11	.71***	-.18	UAI	.50		
WVS90 (Europe15)									
Trust in press	.56*	-.22	-.35	.41	-.14	PDI	.32		
Eurobarometer (EU13)									
No trust 1997	-.32	.47 ^{ns}	.39	-.56*	-.11	UAI (-)	.31	MAS	.60
EMS97									
Att adv newsp	-.46*	.62**	-.29	-.75***	-.17	UAI (-)	.56		
Att adv mags	-.42	.58*	-.29	-.66***	-.33	UAI (-)	.44		
Att adv onTV	.24	-.64***	.18	.36	.03	IDV (-)	.44		

The table also shows data on attitudes to advertising. In 1970 (Reader's Digest Survey) attitudes to advertising were positive (advertising is essential and advertising informs) in the individualist/weak uncertainty avoidance cultures that constituted the developed part of Europe. A conclusion could be that appreciation of advertising is related to wealth. However, in 1997 (EMS), when the countries in Europe have converged with respect to wealth, we see similar relationships between positive attitudes to advertising and the cultural variables. The answers "strongly agree" to the statement "advertising in (newspapers/magazines/television) is a source of information on new products" correlate for newspapers and magazines with small power distance, individualism and weak uncertainty avoidance. It is also in the cultures of this configuration that people are heavy readers. A positive attitude to advertising on television correlates negatively with income ($r = -.74***$). This confirms the negative relationship between television viewing and income (table A33, page 248). If we only include the cultural variables, the predictor is low individualism. For the more textual oriented individualist cultures the press has an informative role and for the more visually oriented collectivist cultures television has an informative role, in general and for advertising. Our conclusion is that if people prefer using specific media, they also attribute an informative role to advertising in these media.

With these examples we demonstrate that across cultures differences in attitudes are related to differences in behavior. A more general attitude to consumption is materialism that includes various aspects that are culture-bound.

Materialism, as a consumption orientation (Ger and Belk 1996:56) is the importance a consumer attaches to worldly possessions. At the highest levels of materialism such possessions assume a central place in a person's life. A materialistic person is defined as "a person who is consumption-oriented and places strong emphasis on worldly possessions as sources of satisfaction in life". A central value found in definitions of materialism is the role of possessions in defining success. Materialism is a competitive striving to have more than others. Possessions make people happy. Things are more valued than people. Materialistic people display an excessive desire to acquire and keep

possessions, including objects, people and memories (photographs).

A logical assumption is that with increased wealth, materialism increases. Inglehart, however, assumes that after a certain level of affluence is reached, materialism declines as consumers turn to higher order needs. Postmaterialist values become more important. Our findings shed doubt on this assumption. Inglehart (1997:359) developed a scale with country-scores for postmaterialist values. When these are correlated with the cultural variables for the 15 countries in Europe, they appear to be related to individualism ($r = .47^*$). We also correlate the country scores for Inglehart's postmaterialist values with a large number of data on ownership of luxury articles, such as watches, faxes, PCs, cars (three or four owned), expensive clothes, shoes and handbags and spending on cosmetics, skincare and perfume (EMS). Only the latter three categories are related to postmaterialist values. Positive correlations with postmaterialist values are found with "never buy cosmetics ($r = .60^{**}$) and skincare ($r = .43$)". Negative correlations are found with high expenditure (£ 100-249) on cosmetics ($r = -.78^{***}$), skincare ($r = -.66^{***}$) and perfume ($r = -.74^{***}$). The logical conclusion is that postmaterialism is related to low usage of personal products such as perfume, cosmetics and skincare. In view of the relationship between postmaterialist values and individualism, we prefer the explanation mentioned in chapter 4 (page 150). Of the respondents of EMS, 68 percent are males. The answers are likely to refer to buying perfume, cosmetics and skin care as presents and in the collectivist cultures people tend to bring more presents than in individualist cultures. We conclude that at national level there are no relationship between Inglehart's postmaterialist values and ownership of luxury articles. Instead, the relationship between individualism and postmaterialist values makes us conclude that Inglehart's definitions of postmaterialism and materialism are part of the individualist world.

A question is whether materialism as an attitude is a driver of consumption. If so, the question is if it is universal or related to wealth or culture. Ger and Belk (1995, 1996) use scales to measure various aspects of materialism and compare materialism across nations¹. The scales are labeled "nongenerosity", "possessiveness", "envy" and "preservation". Preservation involves the conservation of events, experiences, and memories in material form. The four together are thought to be the underlying views of materialism. When the country scores of the four scales (factors) are correlated with the cultural variables², we find that nongenerosity correlates with individualism ($r = .60^*$) and envy correlates with power distance ($r = .54^*$). We had expected preservation to be related to masculinity because an element of preservation is collecting objects and memories and we find that the number of films used relates to masculinity (table A117, page 284). However, preservation correlates with income ($r = .63^*$), small power distance ($r = -.69^*$), individualism ($r = .64^*$) and short-term orientation ($r = -.86^{**}$), a configuration of dimensions which fits a large part of the Western world. Thus we tend to conclude that materialism is part of the Western world, although the various elements of materialism are related to different cultural dimensions.

An interesting finding is that both postmaterialist values and two elements of materialism (nongenerosity and preservation) are correlated with individualism. Perhaps materialism and postmaterialism do not, as their names suggest, include opposing attitudes to life.

¹ Romania, United States, New Zealand, Ukraine, Germany, Turkey, Israel, Thailand, India, United Kingdom, France and Sweden.

² Romania and Ukraine excluded as no cultural variables available.

5.1.3.2. Lifestyle

Lifestyle is described in terms of shared values or tastes as reflected in consumption patterns. Lifestyle groups are people grouped on the basis of the things they like to do, how they like to spend their leisure time and how they choose to spend their disposable income (Solomon 1992:492). The concept is also defined as a mental construct that explains behavior, thus it is not identical to behavior (Grunert et al. 1997:343). Lifestyle is likely to be specific for a product class, e.g. food-related lifestyle, housing-related lifestyle. Within cultures lifestyle segmentation is useful, as it adds value to economic and demographic segmentation. For cross-national marketing the concept is less applicable because value differences of national culture are overriding (Eshgi and Sheth 1985). Even if across cultures certain groups of people can be defined with respect to ownership of specific products, the motives for buying these products vary so strongly, that for developing advertising, these lifestyle groups are not useful.

5.1.4. Processes

Our framework of cross-cultural consumer behavior includes learning, motivation, emotion, information processing and decision making as processes. We have covered learning, emotion and information processing in chapter 2 and have no additional findings to confirm relations with culture. Related to learning and information processing is the difference between verbal and visual orientation. We have touched this in the description of attitude. Those who are part of more visually oriented cultures will find their information in the visual media (television) and those who have learned to process verbal textual information will find more information in the press. The culture-boundness of Maslow's theory is described in chapter two. Here we focus on motives for choosing or buying specific products. We have plenty of evidence of the influence of culture on buying motives. We summarize a few in the following section. We also present findings of the influence of culture on decision making.

5.1.4.1. Motivation

Advertising appeals generally include motives for buying products. In surveys such as the European Media and Marketing Survey advertisers try to find what motivates people to buy products and prefer specific brands. In our cultural analysis we find that even products that are assumed to be culture-free are bought for different reasons in different cultures. In the developed world consumers do not buy products or services for utility or price reasons. They buy them for such non-functional reasons as novelty or status. This is in contrast to what some authors keep saying, that there are universal products with universal motivations.

"Some consumer products (such as cars, computers, dishwashers, and laundry detergents) have universal motivations and product use, so they could be considered relatively culture-free" (Snyder et al. 1991: 443-444).

If authors admit that there is a relationship with culture, it is said that the primary function of products is universal, but that the benefits are imputed by the values and customs within a culture (Cateora 1990:408). So the primary function of a car

(movement) may be universal (but people may prefer other means of transport for movement), but the psychological features vary by culture. Motives for buying cars may serve as examples. EMS asks respondents to answer the question "which of the following factors are the most important in choosing your main car?". Four factors asked in 1997 are "safety", "fuel economy", "enjoyment to drive" and "distinctive design". Another four factors asked in 1999 are "car interior", "environmentally friendly", "importance of an international image" of a car and "I would always choose a European make of car". Table 5.11 shows the correlation coefficients of the cultural variables with the eight factors to choose a car and the percents variance explained in regression analysis.

Table 5.11. Factors of importance for the choice of car, Europe 15									
	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2
Factor to choose car (1997)									
Safety	.02	-.29	-.59*	-.39	.03	.14	IDV (-)	.34	PDI (-)
Fuel economy	-.47*	-.08	-.57*	.06	.14	.33	IDV (-)	.33	
Joy to drive	.36	-.22	.48*	.16	-.18	-.23	None		
Design	-.50*	.51*	.24	.15	.10	.24	None		
Factor to choose car (1999)									
Car interior	.38	.15	.12	.49*	.36	-.20	None		
Environm. fr.	.37	-.55*	-.17	.03	-.20	.17	PDI (-)	.30	
European make	.27	.24	-.11	.51*	.53*	-.03	UAI	.28	
Int'l image	-.56*	.49*	-.84***	.11	.70***	-.01	IDV (-)	.70	PDI
									.79

The factors are all related to culture. Individualism explains variance of the factors safety, fuel economy and international image. Enjoyment to drive also is related to low individualism. Safety generally is viewed to be a universal attribute, but we find that as a motive it is culture-bound. In other surveys we have found a negative correlation with masculinity. Here we find a negative correlation with individualism. The function of safety is likely to be more to protect the loved ones than to protect oneself. European make of the car probably has status value in view of its relationship with masculinity. Design and international image are correlated with power distance and low individualism which implies dependence on status to demonstrate one's position in society. Environmentally friendliness is a motive for small power distance cultures. This fits our finding that internal locus of control makes people want to take care of and pay for the environment themselves.

Like motives, often product functions are not universal across countries. The fallacy to think that product functions are universal leads to the wrong predictions of market penetration and hypotheses in comparative studies. Luqmani et al. (1994) suggest to predict penetration of microwave ovens and food processors according to the need for convenience. We find that unit sales of food processors in Europe (Euromonitor 1996) correlate negatively with individualism and positively with long-term orientation. From the relationship with collectivism we conclude that food processors are used even more in collectivist than in individualist cultures, which reflects the importance of food in collectivist cultures. From the relationship with long term orientation, it may also be concluded that the prime function of food processors is not time saving, but facilitating preparation of sophisticated meals.

Also in Czinkota and Ronkainen (1988:72) an example is given of the explanation that lower penetration of microwave ovens in traditional societies is caused by its time saving feature. This is an example of ethnocentric reasoning. It may well be the other way round. Similar to food processors, the microwave oven is a device that enables

people in cultures where food consumption is considered to be a social event (generally called "traditional societies") to prepare even more refined dishes and thus spend more time on cooking traditional meals. Unit sales of food processors as measured by Euromonitor for 1996, correlate negatively with individualism ($r = -.63^{**}$) and positively with long-term orientation ($r = .46^*$). This confirms that in Europe, such machines are not viewed as convenience products, although they are viewed as convenience products in the United States.

We conclude that differences in sensitivity to certain product attributes and advertising appeals can be explained by motives and their underlying cultural values. For each product category the important motives vary. For mineral water, it is purity, for soft drinks it is status. For cars, motives vary between safety, design and environmentally friendly, that are all related to different cultural values.

5.1.4.2. Decision making

Decision making behavior is not universal. Even business decision making varies across cultures. We found various cultural influences: (1) Group influence, defined by individualism/collectivism. (2) Influence of the partner in marriage, defined by masculinity/femininity. (3) Business decision making, influenced by power distance.

The influence of the group on the self-concept and behavior is complicated because the value paradox plays a role. In individualist cultures, where the identity is in the person alone, one has to do an effort to belong, resulting in membership of formal organizations. This is a phenomenon typical for individualist cultures because in collectivist cultures one automatically belongs to the group in which one is born. This is confirmed in a study by Green and Langeard (1975) who found differences in opinion leadership between US and French consumers that are related to differences in group membership. The US sample indicated a significantly higher level of group membership than the French sample. Thirty-two percent of the members of the US sample belonged to more than three formal organizations, as compared with only three percent of the members of the French sample. Conversely, only twenty-two percent of the US respondents said they did not belong to any formal organizations, as compared with fifty-six percent of the French respondents. This difference in the amount of social influence exerted on buying behavior influences decision making. Social influence is likely to vary with power distance (i.e. dependence - independence) and individualism-collectivism.

The degree of role differentiation influences the involvement of partners in decision making. An example is for buying cars. The EMS surveys ask who was involved in choosing the make and model to buy of one's main and second car. The answer categories are: you, your partner, another household member, your employer/business partner, someone else. The answers "your partner" were negatively correlated with masculinity (EMS1995: $r = -.71^{***}$) and fifty percent of variance is explained by low masculinity. In the feminine cultures, partners decide on this sort of purchase together, while in the masculine cultures selection of the make and model of car is likely to be the task of the male in the relationship. This influence is likely to be noticeable in the decision making process for many household durables.

Business people are generally considered to be a "culture-free group" because their decision making process is assumed to be rational, as compared with consumer decision making. We have found evidence that even decision making by business people is

culture-bound. EMS asks question to measure the degree of involvement in decision making. The question is: "When decisions are made for business purchases several people may have responsibility for different aspects of the decision. Please indicate for each of the product or service areas below whether you have (a) responsibility (this could be for determining needs, choosing brands and suppliers, or authorizing purchase or finance); (b) some involvement (assisting in these decisions) or (c) no involvement". The questions referred to 26 product categories. Table 5.12 shows the correlation coefficients for 21 categories with the cultural variables and the percents variance explained in regression analysis.

	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Notebook computer	.50*	-.64***	.49*	.26	-.59**	.04	PDI (-)	.41		
Desktop computer	.41	-.26	.70***	.09	-.48*	.29	IDV	.49		
Network systems	.47*	-.54*	.34	.32	-.35	.25	PDI (-)	.29		
Computer peripherals	.58*	-.58*	.61**	.13	-.53*	.16	IDV	.37	PDI (-)	.58
Computer software	.58*	-.48*	.65***	.03	-.55*	-.03	IDV	.42		
Photocopiers	.23	-.46*	-.21	.50*	-.12	.00	None			
Facsimile equipment	.49*	-.26	-.04	.46*	.02	.09	None			
Telecom systems	.34	-.36	.20	.47*	-.19	-.10	None			
Other office equipment	.46*	-.55*	.07	.52*	-.27	-.15	PDI (-)	.30	MAS	.56
Company car fleets	.21	-.44 ^{ns}	.16	.22	-.25	-.29	None			
Construction equipm.	.43	-.59**	.06	.45*	-.13	.01	PDI (-)	.35	UAI	.59
Advertising services	.62**	-.71***	.14	.19	-.40	-.09	PDI (-)	.50		
Marketing & research	.71***	-.70***	.26	-.26	-.55*	-.21	INC	.50	PDI (-)	.70
Exhibits/trade fairs	.69***	-.43	-.19	.01	-.13	-.34	INC	.47	IDV (-)	.74
International banking	.10	-.19	-.13	.62**	.15	.38	MAS	.38		
Domestic banking	-.57*	.02	-.21	.39	.08	.38	INC (-)	.33		
Corporate finance	.61**	-.41	.10	-.30	-.35	-.79***	LTO (-)	.62	PDI (-)	.76
Corporate investment	.50*	-.59*	.11	.09	-.41	-.58*	PDI (-)	.35	LTO (-)	.64
Corporate relocation	.25	-.45*	.13	.18	-.19	-.01	None			
Corporate travel	.50*	-.48*	-.05	.26	-.05	.22	None			
Int'l freight & courier	.40	-.24	.49*	.42	-.13	.03	None			

Correlation and regression analysis of the mean scores of percent answers with the cultural variables show that for 21 out of 26 categories the degree to which respondents state they are involved in the decision making process is related to culture. For twelve of 26 categories there is a significant negative correlation with power distance, for four categories the correlations are nearly significant ($p = .055$ or less). For all, except one (domestic banking), the direction of the correlation with power distance is negative. For five categories no significant correlations with either income or culture are found: Accountancy/management consultancy, insurance, mini/mainframe computer, printer, raw materials/chemicals. Of these five, two show correlations that are nearly significant: Accountancy with income ($r = .43$, $p = .053$) and mini/mainframe computer, with income ($r = .43$, $p = .055$) and with power distance ($r = -.43$, $p = .055$).

Our conclusion is that the degree of involvement in business decision making is related to culture and that the dimensions involved vary by product category. In addition, there is a consistent relationship between the degree of involvement and power distance. In the small power distance cultures more people are involved or think they are involved in decision making on corporate buying aspects than in the large power distance cultures. While in Denmark (small power distance) a secretary who assists her boss in gathering information on products to buy may view this as involvement in decision making, a

secretary in France, giving the same assistance probably will not view this as involvement in decision making as the boss takes all decisions. Wealth has an influence too, in particular with respect to marketing and advertising. Obviously, marketing and advertising are functions of the rich world where everyone is involved. Also involvement in decision making on corporate finance and buying of computers is an aspect of wealth.

5.1.5. Consumer behavior domains

Consumer behavior domains mentioned in our framework of cross-cultural consumer behavior are product ownership and usage, adoption and diffusion of innovations, complaining behavior, brand loyalty, responses to advertising and media usage. Product ownership and usage is the most extensively covered consumer behavior domain in our study. In chapter four we describe the whole gamut of relationships between consumption and culture. The influence of culture on diffusion of innovations is a well-covered topic in literature. In this chapter we add a few of our findings. We do not add findings on complaining behavior and brand loyalty, but we do add information on culture's influence on media usage.

5.1.5.1. Diffusion of innovations

The diffusion process (see also chapter 2, pages 65-69) is not universal. Rogers' (1962) theory was developed in the United States and in its concept may be valid for other cultures, not in its application. Rogers identified five categories of (American) consumers according to the degree of acceptance of new products. They are called Innovators, Early adopters, Early majority, Late majority and Laggards. The first adopter group is also called *innovators*, and the followers are also called *imitators*. Innovations are communicated through the mass media and through personal communication. In chapter two we write that the percentages of the five categories as well as the time span of the adoption process are likely to vary by culture. The weak uncertainty avoidance cultures are expected to have a larger percentage of early adopters than the strong uncertainty avoidance cultures. Collectivism is also involved. Particularly in Japan, after acceptance, the spreading of new products goes fast.

The concept of innovativeness has a long and rich history in consumer behavior, where innovativeness is the tendency of individual consumers to adopt new products before large numbers of others do. However, the idea that nations may also differ in innovativeness is relatively new. In a study by Lynn and Gelb (1996) individualism and uncertainty avoidance were expected to be predictors for national innovativeness. The more individualist a country is, the more willing its people would be to try a new product before others do, but the less quickly its people would be to model other's adoption of an innovation. Uncertainty avoidance should affect national differences in new product diffusion in a straightforward manner. Purchasing innovative new products involves making changes, taking risks and accepting uncertainty. National innovativeness tends to be measured by the per-capita number of innovative new products owned or by the percentage of individuals or households who own innovative new products. An index of national innovativeness was developed based on ownership of answering machines, home computers, video cameras, microwaves, compact disc players, cordless telephones and satellite dishes (data from Reader's Digest Eurodata 1991, 16 countries). This index of national innovativeness was found to be significantly correlated with individualism (r

= .77), uncertainty avoidance ($r = -.58$) and purchasing power ($r = .80$). The separate products gave different results, for example, there was no significant correlation between individualism and ownership of microwave ovens and video cameras.

Also Lindberg (1982) found that for durables individualism explains early penetration. Across cultures, demand for durables measured in units follows dissimilar patterns. In the case of television receivers, 25 percent of households in Sweden had at least one set only five years after the introduction of television, whereas that percentage was reached in only 12 years in France. For television sets the early adopter countries are the wealthy individualist cultures.

Takada and Jain (1992) found that both the influence of the media in the process and the strength of the innovation or imitation aspects vary across cultures. In countries with homophilous communication [collectivist cultures], the diffusion goes faster than in countries with heterophilous communication [individualist cultures]. Takada and Jain (1992) believed that the coefficient of imitation would represent cross-country differences more clearly and distinctly than the coefficient of innovation, because the latter represents small parts of populations of any country. The innovators are a very small segment in the market. Furthermore, they play a rather limited role in diffusing the innovation to other segments. The imitators, in contrast, play the major role in diffusion of innovations in the marketplace and are a substantially larger segment. Ganesh (1998:39) assumed the coefficient of innovation to be linked with different cultural dimensions than the coefficient of imitation. His article presents the coefficients of innovation for five product categories introduced after 1970: VCRs, microwave ovens, home computers, cellular phones and CD players.

Our analysis of the coefficients of innovation and imitation by Ganesh shows that there are large differences between countries. Correlation of the coefficients of innovation and imitation with the cultural dimensions shows no relationship with culture for VCRs and microwave ovens, but it does for home computers, mobile phones and CD players. Table 5.13. shows the correlation coefficients with the cultural variables and the percents of variance explained in regression analysis. The results do not show a consistent pattern.

Table 5.13. Diffusion of new products; coefficients of innovation and imitation							
	PDI	IDV	MAS	UAI	LTO	Predictor	R ²
<u>Coefficients of innovation</u>							
Home computers (12 ctrs)	-.42	.07	-.53*	-.38	-.09	none	
Mobile phones (8 ctrs)	.52	.46	.05	.24	-.53	none	
CD players (9 ctrs)	-.54	.20	-.45	-.60*	-.39	none	
<u>Coefficients of imitation</u>							
Home computers (12 ctrs)	.21	-.82***	-.02	.42	-.00	IDV (-)	.67
Mobile phones (8 ctrs)	.64*	.37	.85***	.62 ^{ns}	.35	MAS	.72
CD players (9 ctrs)	.05	.19	-.16	-.38	-.61*	none	
Source data: Ganesh (1998)							

Innovation for home computers is related to low masculinity. Innovation for CD players is related to weak uncertainty avoidance. Imitation for home computers is related to low individualism. Imitation for mobile phones is related to masculinity¹. Imitation for CD players is related to short-term orientation. Only the imitation coefficients for home computers support the assumption that in collectivist cultures imitation will be faster than

¹ The mobile phone data are for “cellular phones” in the time period 1970-1980. At that time, the majority of cellular phones used to be car phones. This may explain the link with masculinity.

in individualist cultures, while innovation will be slower.

We conclude that there are differences in diffusion patterns between countries, and that they can be explained by culture. A conclusion to make from the findings is also that the type of relationship between innovativeness and culture varies by product category.

5.1.5.2. Media behavior

Chapter four covers culture and media (page 114-121) and we demonstrate stable relationships between newspaper readership and power distance. In this section we add a few aspects of newspaper readership and we discuss findings of children's media behavior.

Gustafsson and Weibull (1997) described the structure and development of European newspaper readership. They found considerable differences between countries with respect to newspaper readership, magazine readership and television viewing and attribute these differences to economic, political or socio-cultural characteristics of countries, as well as to the responses to these factors by the newspaper industry itself. They did not relate differences to specific cultural factors. We find that approximate newspaper exposure data presented by the authors correlate negatively with power distance ($r = -.77^{***}$) and with uncertainty avoidance ($r = -.66^{***}$). This confirms our findings from other data. According to the authors one of the aspects influencing newspaper readership is the distribution. The Nordic countries are characterized by a very efficient distribution of newspapers. Most of the morning newspapers are subscribed to and home delivered and for single copy sales there is a large number of outlets. Home delivery of daily newspapers is an almost unknown concept in countries with low newspaper consumption. In France at most one-fourth of its newspaper circulation is home delivered. In Belgium only one third of the newspapers are sold by subscription. So, in the low readership countries not only home delivery is low, but also number of points of sale is low. For seven countries the number of inhabitants per point-of-sale correlates positively with power distance ($r = .71^*$) and masculinity ($r = .73^*$). This link between distribution of newspapers and readership is often made. However, the weak distribution may not be the cause of low readership, but rather the result. Weak demand causes weak distribution.

In chapter four we demonstrate that time spent viewing television is related to culture. In literature we found a study that analyses how and in which company children watch television. Secondary analysis of the data shows how culture influences the way people use media.

Pasquier et al. (1998) analysed patterns of media use by Flemish, French, Italian and Swedish children. They found that domestic use of media by young people is organized according to the family situations that characterize the various countries concerned. In the survey, a large majority of children appear to live with both their parents, but figures vary from country by country. There also is a wide diversity of bedtime habits among the pre-adolescents. The survey also shows that in the four countries considered, intergenerational conflict varies considerably. It is lowest in Flanders and in France and greatest in Sweden. Although in all countries, children increasingly have television sets in their bedroom, the survey shows that even for those who are equipped with a television set in their own room, Flemish and French children watch it there much less often than young Italian or Swedish children. For example, among those 26 percent of Flemish

children who have a television set in their bedroom, 18 percent often watch television there. In Sweden where one child out of two has a television in the bedroom, 37 percent always watch it there. In France, watching television still seems very much a family activity, highly likely to take place in the living room.”

The authors did not make the link between culture and children's media use. The dimensions expected to play a role in explaining the differences are power distance and individualism for watching television in the family or for watching alone, although also low masculinity is likely to be a factor influencing watching together because of affiliation needs. Other comparisons made in the study, expected to be related to culture were viewing television alone or with friends, video or computer games played alone or with friends, chatting about different media with mother or father, chatting about playing with/using computer with mother or father and restriction of media access by mother or father. Correlations between the percents answers presented in the article and the cultural dimensions result in relationships that explain the differences. Table 5.14 shows the correlation coefficients. As data are only available for four countries, few correlations are significant, but in general our findings confirm the relationship between culture and media behavior of children.

	PDI	IDV	MAS	UAI
Boys view alone		-1.00***		
Girls view alone		-.95		
Boys view with friends	-.98*		-.996*	-.999***
Girls view with friends	-.99*			
Video & computer games alone		.87		
Video & computer games with friends		-.96*		-.999***
TV: Chatting with mother	.88	.97*	.84	
Computer: Girls chat with mother		.86	.87	
Media restrictions by mother			.83	.83

The authors concluded that despite increasing equipment in children's bedrooms, media are still a shared experience with their family members. Private equipment in the bedroom leads to more individual use, but it does not lead to only individual use. Young people, even when they have a high rate of private equipment, still watch a lot of television with their parents or siblings. This European comparison shows that media life at home fits into differentiated national and cultural patterns (Pasquier et al. 1998). This cultural pattern can be explained by culture analysis. In the masculine cultures, role differentiation leads to a relatively strong role of the mother in media usage by children. This is demonstrated by the positive relationship between masculinity and "chatting with mother about television and computers" and media restrictions by mother. The differences between playing video and computer games alone or with friends is explained by individualism/collectivism. Viewing television with friends is related to small power distance. Independence values of small power distance are the explanation of this. Interestingly, in the collectivist cultures both boys and girls watch alone. Our interpretation is that in collectivist cultures children either watch television in the family, or their own programs alone, and less with friends.

Our conclusion is that culturally defined socializing patterns are reflected in differences in media use of children. The differences in media use are stable over time, they can be explained and predicted.

5.2. CONSEQUENCES FOR PRACTICE

Knowledge of the long-term effects of culture on consumer behavior should improve marketing and advertising strategy. Understanding culture's influence is likely to be of particular use for predictions of international market development, for branding strategy and for segmenting international markets. For each product category countries can be clustered and mapped according to the cultural dimensions and value domains. This is a more meaningful and effective way to cluster countries than using regions, closeness of countries, language or income. Finally, understanding the consequence of cultural differences can also be used for national public policy. For policy making, governments tend to review how other countries organize public life. If the examples used are of culturally different countries, it is not a wise decision to follow such examples.

5.2.1. Stages of global market development

Few authors have described phases of international market development that can be used to embed our findings. We mention two.

Cateora (1990:291) describes the classification of countries by Walt W. Rostow (1971). Rostow classifies countries by five stages of development: (1) Traditional society. (2) Preconditions for take-off, including advance of science and infrastructure. (3) Take-off, including economic growth and steady development. (4) Drive to maturity including sustained progress and modern technology. (5) Age of high mass consumption including a shift toward durable consumer goods and services, where income per capita rises to a point where a very large number of people have significant amounts of discretionary income. This last phase is what we have named postscarcity society.

Another approach is to distinguish two stages of market evolution as described by Baker (1995:261), from markets for generic need with low differentiation and homogeneous customer needs to higher differentiation with heterogeneous customer needs. Our findings of increased heterogeneity at micro level along with convergence and homogeneity at macro level can be viewed as an extension of this theory.

For all sorts of durables and technology, but also for advanced food products income is the main driver for market penetration of the generic product. After markets have become saturated with a generic commodity, differentiation takes place. This generalization can be applied within national markets and between national markets. Between-market differentiation is driven by national wealth and cultural factors. In economically homogeneous regions (e.g. Europe), market penetration of the generic good is likely to go faster than in economically heterogeneous region and differentiation between markets takes place earlier in the process, as cultural differences are manifest because of economic similarity of markets in the region.

We suggest three stages of international market development with different consequences for international marketing communications in each stage.

Stage 1: Global products, global marketing-communications

The degree of market penetration of the generic product will be related to national wealth and - depending on the degree of innovativeness of the generic product - the

degree of uncertainty avoidance. An example was the penetration of television sets when they were introduced as a generic product. Another example is penetration of mobile phones. In this stage marketing-communications can be based on product attributes and can be relatively standard. The success of Coca-Cola was in this first stage, when there was relatively little competition and their global advertising was very effective.

Stage 2: Global products, adapted marketing-communications

When markets become saturated, differentiation takes place within and between markets. Differentiation within markets is likely to follow a different pattern than between markets. The same differentiated products are sold everywhere, but some are sold better in some cultures than in others. Following the example of the television set, we see that in the strong uncertainty avoidance cultures more wide-screen televisions are bought and in the individualist cultures teletext is more used. The mobile phone is offered for different usage, such as for electronic banking or special rates for mothers to communicate with their children. In this stage marketing-communications must be adapted and this can be done according to culture-clusters. When Coca-Cola entered this stage, they continued their strategy of stage one, resulting in losses.

Stage 3: Local products, local marketing-communications

This is a stage when strong competition forces companies to further differentiate. It is likely to be profitable to develop product extensions for specific applications to comply with cultural differences in usage and motives in national markets. These can be single markets or clusters of markets, following the product-relevant cultural values. In the television category the example is interactive television versus broadcasting by computer and Internet. The mobile phone is not yet in this stage. Coca-Cola, with its recent strategy of local product development (see also chapter 6, page 205). has entered this stage. In stage three, marketing-communications is local.

5.2.2. Branding strategies

Although no hard data are available of brand types being cultural phenomena, our perception is that in Asia there are more company brands while the product brand is a more Western, individualist phenomenon. Product brands are developed for positioning purposes, both against the competition and against other brands of the company's brand portfolio. Differentiation and positioning strategies are a Western phenomenon. In Asian, collectivist cultures the company brand is a more frequent phenomenon, because an important aspect of marketing in collectivist cultures is to build relationships between companies and consumers. Western companies, when marketing in collectivist cultures focus their marketing communications on building relationships between the company and consumers rather than on strong positions of their individual product brands.

Another culture-bound phenomenon is the private retail brand. Batra and Sinha (2000:177) describe how some consumer characteristics are likely to influence consumers' propensity to purchase private labels. One of them is the degree of reliance by the consumers on extrinsic cues (those more reliant on such cues preferring national brands). Extension of this characteristic to the national level suggests that people in collectivist cultures are likely to prefer national brands to private labels. The private label phenomenon is indeed typical for individualist cultures, but it is also related to short term orientation. The percents market share of private label in value for 21 countries worldwide correlate positively with individualism ($r = .43^*$) and negatively with LTO (r

= -.55**)¹. In collectivist cultures there are two reasons for preferring national or global brands to private labels. (1) National brands with added value are used to demonstrate one's status in society. (2) The need for harmony makes people more brand loyal. Long term orientation adds to this by building long-term relationships between customers and brands.

5.2.3. Market research

Increasingly global companies rely on global surveys. Often questionnaires are developed in the home country and translated for use in many other countries. If the questions refer to values, it is increasingly understood that for many cultural concepts there are no linguistic equivalents. If questions are asked about usage or ownership, there should be fewer problems, unless the way the question is formulated causes biased response. This is an undervalued problem in international market research.

The problem of extreme response style is increasingly understood. Differences in response style and tendencies to use extreme points on verbal rating scales, as well as yea-saying and nay-saying biases have been found to differ from country to country (Douglas and Craig 1983:192). There is little empirical evidence of the relationship with the cultural dimensions, but the degree of external locus of control is expected to explain these differences.

We found specific answer types that can induce biased responses. One example is in the section on decision making (pages 189-190), where we discuss the measurement of the degree of involvement in decision making in business. We have seen that the answer category "somewhat involved" correlates with small power distance because in cultures of small power distance more people think they are involved in decision making, because there is much more discussion about decisions. What are measured by such questions are cultural differences, not the degree of influence on decisions. In large power distance cultures people, who assist in decision making likely to say they are "not involved". Those in small power distance cultures who say they are somewhat involved may in fact be as much involved as those who say they are not involved in large power distance cultures. But the latter will not say so because they know that formally the boss takes all decisions.

Another influence is the need for status or lack of status need that can influence response behavior. Variance of the responses to the answer category of "consume occasionally" for various drinks is more related to culture than to actual consumption differences. The three answer categories used by EMS 1999 for measuring consumption of alcoholic beverages are "drinks you normally have in the home", "drinks you consume regularly" and "drinks you consume occasionally". Our findings are that the answers "have in the home" and "consume regularly" are more representative of actual consumption than the answers to the category "consume occasionally". For several beverages, the answers "consume occasionally" correlate negatively with masculinity, while a different dimension explains regular use.

¹ The 21 countries are Australia, Austria, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Italy, Japan, Mexico, Netherlands, New Zealand, Portugal, South Africa, Spain, Sweden, Switzerland, UK and USA. calculations with LTO are only for 19 countries, as no data for LTO are available for Mexico and South Africa. Data are from Nielsen.

In table 5.19 we show the correlation coefficients between the cultural variables and two answer categories (consume regularly and consume occasionally) for five alcoholic beverages and mineral water (total and sparkling). Regular consumption of gin, liqueur, premium beer, Scotch whisky and vodka is correlated with various cultural dimensions. What these beverages have in common is that occasional drinking is related to low masculinity. A conclusion can be that in the feminine cultures there are more occasional drinkers than regular drinkers. Analysis of the responses to mineral water makes us think of another conclusion. From other sources we know that in Europe total consumption of mineral water and of sparkling mineral water correlates with masculinity (table A83, page 271). If the heavy consumers of mineral water are in the masculine cultures, low consumption in the feminine cultures may be due to occasional drinking only. For luxury drinks like Scotch whisky, gin or liqueurs, we don't find this reverse relationship. A tentative conclusion is that the response category "consume occasionally" is more attractive to members of feminine cultures than to members of masculine cultures because of modesty.

Consumption	INC	PDI	IDV	MAS	UAI	LTO
Mineral water						
Regular	.23	.29	-.18	.40	.49*	-.13
Occasional	.08	-.28	-.12	-.60**	-.32	-.30
Sparkling mineral water						
Regular	.73***	-.38	.13	.17	-.12	-.25
Occasional	.16	-.28	-.16	-.64***	-.25	-.35
Gin						
Regular	-.22	-.15	.33	-.16	-.56*	.09
Occasional	.16	-.18	.02	-.46*	-.46*	-.15
Liqueur						
Regular	-.44*	.16	.02	-.29	-.01	.52*
Occasional	.05	-.02	-.26	-.68***	-.08	.05
Premium beer						
Regular	-.18	.08	.52*	-.08	-.29	.50*
Occasional	.01	.17	.24	-.41	-.08	.31
Scotch whisky blended						
Regular	-.33	.22	.01	-.43	-.17	.40
Occasional	-.06	-.17	-.14	-.49*	-.35	.02
Vodka						
Regular	-.16	-.17	.18	-.45*	-.54*	.26
Occasional	.30	-.39	.11	-.52*	-.53*	-.29

The examples make us conclude that international research is hazardous. Not only do response styles vary with culture, also answer categories to usage and attitudes are culture-bound. This can result in biased responses. International marketing strategies that rely on international research using culture-bound questions and answer categories can easily fail.

5.2.4. Market segmentation by cultural values

In chapter three we review the variables generally used to segment international markets. Most used variables are national income and related criteria. Our findings of the influence of culture on consumption demonstrate the usefulness of cultural variables for

the segmentation of markets. Clustering countries according to cultural variables is useful for differentiation of sales strategy and advertising. For advertising, the application is to cluster countries according to culture-bound motives. Because nearly all product categories are related to one or more dimensions, for each product category a culture map can be made. We give two examples, for the product categories cosmetics and passenger cars.

5.2.4.1. Cosmetics

Cosmetics satisfy the need to look young and to differentiate oneself from others. Cosmetics also are not "natural", they are artificial. This is why usage of all sorts of cosmetics correlates negatively with uncertainty avoidance. This expresses the need for purity and distrust of the artificial. To accept the artificial, in strong uncertainty avoidance cultures scientific values are added to cosmetics brands. This explains the use of scientific data and arguments in advertising for hair care, toothpaste and personal care products in Germany and the existence of 'scientific' brands such as Laboratoire Garnier in France. Scientific data and arguments are likely to be more effective in strong uncertainty avoidance cultures than in weak uncertainty avoidance cultures. The preoccupation with purity related to cosmetic products has also been recognized in Japanese society, which is very high on the uncertainty avoidance Index (Becker 1997).

The diagram in Figure 5.4. depicts four culture clusters for cosmetics involving power distance, uncertainty avoidance and individualism.

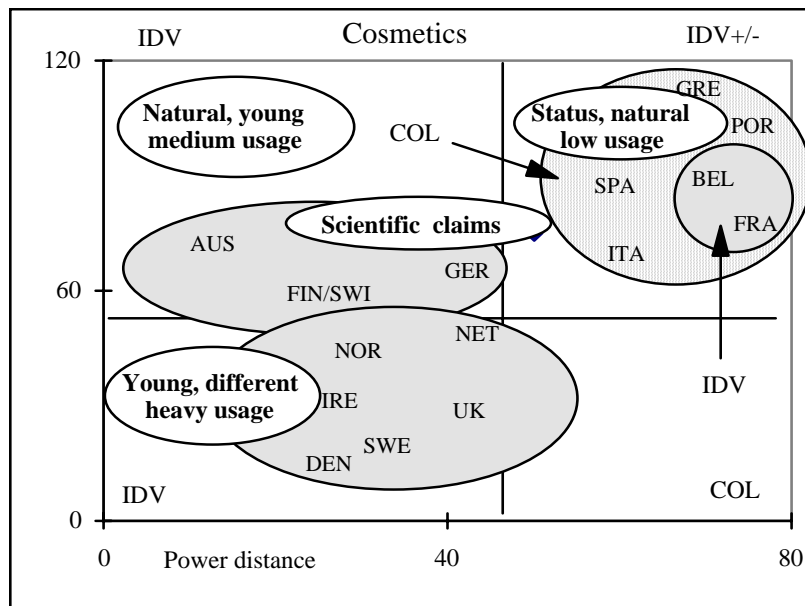


Figure 5.4. Cultural map for cosmetics

Heavy usage of cosmetics is found in the cultures of the configuration small power distance/weak uncertainty avoidance, in the lower left-hand corner. In small power distance cultures people want to look young and in weak uncertainty avoidance cultures people don't mind the artificial. This also is a cluster of individualist cultures.

Medium to heavy usage will be found in the culture cluster of large power distance/weak uncertainty avoidance in the lower right-hand corner. Cultures in this cluster are also collectivist. Status brands will be important in this cluster and brand loyalty will be strong. Singapore and Hong Kong would fit in this cluster.

Medium usage is found in the culture cluster of the configuration small power distance/strong uncertainty avoidance in the upper left-hand corner. This cluster includes medium individualist cultures. Small power distance means people will use cosmetics to look young, whereas strong uncertainty avoidance limits acceptance of some types of cosmetics. Products or brands focusing on the natural and purity, preferably scientifically controlled, will sell best in this cluster of cultures.

In the culture cluster of the configuration large power distance/strong uncertainty avoidance in the upper right-hand corner, sales will have to be stimulated more than in the other clusters and both the scientific approach and status brands are expected to sell best. This cluster includes individualist and collectivist cultures, so the approach will have to be differentiated for the two sub-clusters. This map for cosmetics is equally applicable to hair care products.

5.2.4.2. Passenger cars

Our findings have demonstrated that in the developed world penetration of passenger cars has converged. We also demonstrate that the number of cars per family, how people use cars, and what motivates people for preferring one type of car to another, varies by culture. Countries can be clustered according to motives for passenger cars. Figure 5.5 illustrates this.

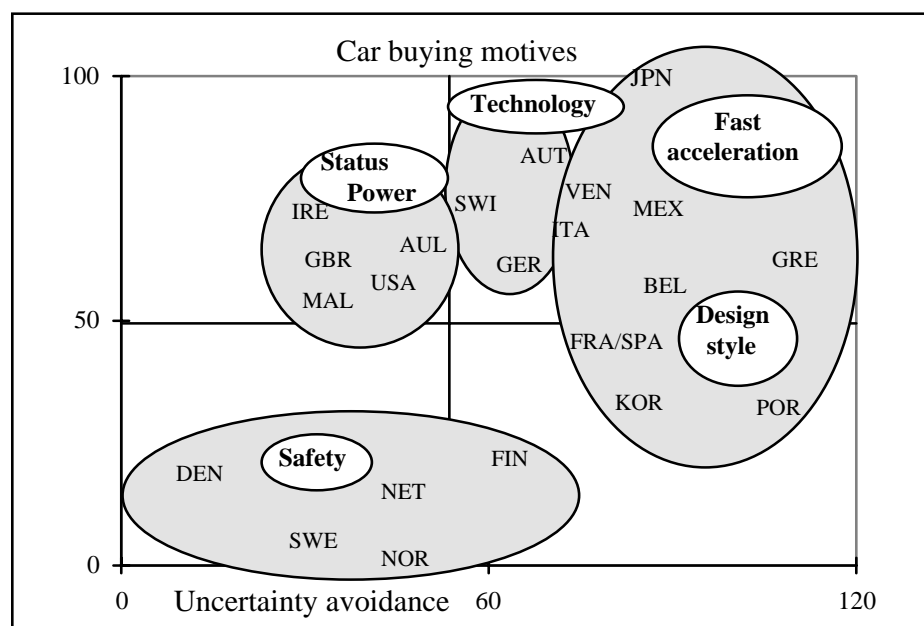


Figure 5.5. Car buying motives

The lower left-hand quadrant shows the configuration low masculinity/weak uncertainty avoidance. In this culture cluster people have a preference for safety to protect the family. There is no interest in the size of the engine or other technical aspects. Volvo the Swedish car brand with its long-time safety claim fits this description.

The upper left-hand quadrant shows a cluster of cultures of the configuration masculinity/weak uncertainty avoidance. People in these cultures tend to have status needs to show success. They also are interested in technology. There is preference for cars with big, powerful engines.

The upper right hand quadrant shows the cluster of cultures of the configuration masculinity/strong uncertainty avoidance. People of strong uncertainty avoidance cultures are fast drivers and they prefer cars with fast acceleration. This seems paradoxical, as one would expect to see risk aversion translated into a safety motive. Not so, the explanation is that people of strong uncertainty avoidance cultures build up stress, which they also want to release. Fast driving functions as an emotional safety valve. A high score on the masculinity dimension adds the need to also drive aggressively. And cars must be technologically advanced, well designed and well tested. In this quadrant fits Volkswagen claim "Vorsprung durch Technik". Basically, there are two clusters when we include power distance. The cluster at the left is of small power distance and the cluster at the right is of large power distance, so we have combined the countries with those of the cluster in the lower right hand quadrant.

In the lower right hand quadrant with the configuration low masculinity/strong uncertainty avoidance, one sees the need for 'sporty' driving, fast acceleration, but not so aggressive. This is combined with a preference for design, but more in the art/fashion sphere, pleasure and enjoyment. Both right hand quadrants include cultures of large power distance, which reinforces the appeal of the design of a car, a status function.

5.2.5. Public policy and culture analysis

Finally, we suggest that our findings are not only useful for marketing, but also for government policy makers. When confronted with the need for behavioral change, governments tend to take other countries as examples of successful change programs. A program however, that is successful in one culture is not necessarily successful in others. We give three examples.

In the Netherlands, traffic congestion has become such a severe problem that people must be persuaded to change their travel behavior. Various proposals have been done to do this. One program was to make people share cars and develop carpooling systems. It never really worked. The Netherlands is such an individualist culture that people rather stand still in traffic jams doing their own thing than share a car. Once we read in the newspaper that Singapore was supposed to be a good example of how people were demotivated to use their cars and it was suggested to follow the example of Singapore. That would be unwise. The Singapore systems are based on expected behavior of citizens that are obedient to authorities. The Dutch are a very anti-authoritarian people. Programs effective in Singapore will not work in the Netherlands.

Another example is of Spain, where in May 2000, in a newspaper article the numbers of doctors (physicians) per 1,000 population were compared with other countries. Spain has a much higher number of doctors per population than for example the United Kingdom, and it was suggested to follow the example of the United Kingdom. We found that variance of doctors per population in the developed world is increasing and that expenditures on health care are related to strong uncertainty avoidance. The general practitioner in Spain has moreover a much more social role than in the United Kingdom. The effect of decreasing the number of doctors in Spain would be much more negative than it would be in a country of weak uncertainty avoidance.

Comparison of the degree of locus of control of populations will help predict the success of approaches to change public behavior and attitudes. Motivation programs by governments to reduce cigarette smoking are likely to be more effective in cultures where external locus of control is strong. In such cultures government advice is much more accepted than in cultures with populations with internal locus of control. This implies, that if the Spanish government would be really motivated to improve the health of their people, they should have a good chance of success if they started a government motivation program against smoking. In the Netherlands, where internal locus of control operates, motivation programs steered by the government would be less effective.

5.3. CONCLUSIONS

Our study has provided evidence that consumer behavior across countries is not converging with converging incomes. Consumer behavior varies across cultures and the differences are likely to remain stable over time. Consumption is related to culture. Consumption differences between countries can be understood by culture-analysis with Hofstede's cultural dimensions. Different cultural values are attached to different product categories. Value differences related to specific consumption activities can be defined by value domains. These can be used to segment markets. Value domains vary by product category.

Consumer behavior theories are mainly valid for understanding the behavior of consumers in the country where the theories are developed. There are generalizations that are applicable in concept, such as the diffusion of innovations, but for application in other countries, they must be reviewed with respect to their cultural relevance. Engel's laws need to be modified when applied internationally. Variance of attitudes across cultures can also explain variance of behavior. Lifestyle segmentation is less relevant for cross-cultural purposes than it is within cultures. Buying motives and decision making are culture-bound, even in the business-to-business domain.

The findings of our study can be generalized for international market development theory and can be applied to strategy development. Branding strategies are cultural phenomena and so are market research methods. For efficiency purposes, cultures can be clustered according to cultural values. Finally, our findings can be used for understanding the effectiveness of public policy measures.

CHAPTER 6

CONCLUSIONS

As recent as November 20, 2000, we could read in Newsweek that "in many vital ways, the trend [in Europe] is towards convergence, not divergence" and "A single youth culture is forming across Europe, even if it often mimics a kind of American model" (Rossant 2000). This quotation is representative of many others, in particular in Anglo-American publications.

We have demonstrated that across nations many aspects of consumer behavior and related values are not converging. This should be the end of global advertising. Modern marketing uses values for developing effective marketing and advertising programs. When developing programs for global markets, marketers don't realize that programs reflecting their own values are likely to be less effective in markets where people have different values.

There are four reasons why international marketing and advertising people are reluctant to accept this (De Mooij 2000:105).

1. What unites marketing and advertising people worldwide is the wish for change. Change and trends, preferably every year new ones, are what the marketing and advertising world thrives on. New trends mean new business. This preoccupation with change makes it difficult to understand the stability of cultural values.
2. Most global advertising agencies and many multinational companies have Anglo-American management, with individualist values. Individualism implies universalism, thinking that the rest of the world is like oneself or will become like oneself. For individualists it is difficult to understand that others may be different, and will remain so in the foreseeable future. Their focus is on global markets, on similarities, not on the differences (Holden 1998).
3. Those who preach the importance of cultural differences in the global market place until recently did not have much empirical evidence to refer to. The few results of cross-cultural academic research trickle down slowly.
4. The problem of cultural values is that they are difficult to vocalize. Cross-cultural studies that can be applied to marketing and advertising are few and far between.

We found empirical evidence that value differences across nations influence consumption and consumer behavior. We also have demonstrated that the application of simple statistical methods to public domain data can delineate the influence of culture on all aspects of consumer behavior. In this chapter we present our conclusions. First we summarize how our findings take the edge off a few persistent myths of globalization in marketing and advertising. Further conclusions are on the effects of culture on consumption and consumer behavior and the consequences for practice. Finally we give recommendations for further research.

6.1. THE MYTHS OF GLOBAL MARKETING

Nearly every day we can read in the newspapers about globalization and the assumed harmful effects. People feel dominated by the large multinational corporations more than by their local and national governments. One of the results is increased protest against global trade and organizations such as the WTO and the IMF, viewed as representing MNCs. Globalization is largely visualized by a few ubiquitous global brands such as Coca-Cola, McDonald's, Marlboro and Levi's. In the protests these brands are frequently targeted because of their symbolic function. With respect to globalization they are, as we have demonstrated, not representative for the total consumption package. They have become the symbols of globalization and "cultural imperialism". They also are the pioneers of global advertising. Their global advertising campaigns, thought by the designers to be based on universal values, are in fact based on Anglo-American values. From our findings we conclude that, although meant to be global, they actually have targeted the Anglo-American cultures, at the same time causing waste in the rest of the world. The global advertising campaigns for a number of leading global brands obviously have appealed more to cultures of similar values and appealed less to cultures with different values. In the latter cultures they may even have caused negative feelings. Thus, the role of global advertising in the globalization process is different than intended. There are no universal values. This is one of the myths of global marketing and advertising. Our findings have also defied the myth of convergence of consumer behavior. There are more myths: The myth of global communities, the myth of culture-free products and the myth of the new media.

6.1.1. The myth of convergence

Values of national cultures are stable. This is in contrast to expectations that with converging incomes and technology people's needs and wants homogenize (Levitt 1983). In Europe, neither cross-border media, nor disappearing borders have diminished cultural differences. The English language cross-border channel CNN is only used for corporate advertising by a limited number of companies. MTV increasingly localizes its content across Europe. Understanding of the English language still varies widely and few continental Europeans regularly watch English language television without translation or subtitles (data EMS). Although there is evidence of convergence of economic systems in the developed world, and in particular in Europe, there is no evidence of convergence of peoples' value systems.

Only at system level we found convergence: Convergence of the economic and demographic environment. We found little convergence of consumer behavior at the micro level. In many cases, convergence at the macro-level masks divergence at the micro-level or periods of convergence are followed by periods of divergence. Often there is parallel change and the differences remain similar over time. The reason is that values are stable. We did not find evidence of value change. Instead, with increased wealth, "old" values become manifest. Our findings have provided abundant evidence of how values influence consumption and the stability of such influence over time.

We also could not find support for the argument that increased global mobility for business and vacations will cause people to homogenize. People do not travel to an extent that they are frequently confronted with other cultures. Even if all people would have enough money to travel abroad, they would not all do this to the same extent. Of the

high-income groups of Europe, covered by EMS in 1997, 54,3 percent did not travel outside Europe. If this wealthy part of the European populations travels so little, what about the total population? Foreign travel is culture-bound. Uncertainty avoidance explained 64 percent of variance of the percent answers "no air trips made at all" in 1997. In the strong Uncertainty avoidance cultures people do not like traveling as much as in the weak uncertainty avoidance cultures. Strong uncertainty avoidance includes the need for stability and travelling includes a lot of change. White (2000) adds to this that "people on vacation are not in a mood that has much to do with their domestic purchasing behavior, so the relevance of any advertising they see is limited."

Globalization is a fact, but global competition is mistaken for global markets. The success of multinational companies is probably due to factors other than emerging universality of consumer needs and wants (Sheth 1986). The assumption of cultural homogeneity is most found in writings by American textbook authors. What they refer to is the success of a few American brands in a specific time period. In marketing, Americanization is mistaken for globalization. When other countries are becoming wealthy and sophisticated in marketing their own products and brands this effect is likely to become less pronounced. In the 1990s large multinationals standardized operations and brands. Procter & Gamble slashed the number of products and brands and in the year 2000, Unilever is following this trend and aims to concentrate on 400 instead of 1,600 brands (Economist February 26, 2000). This will offer new opportunities for local brands.

Large multinationals have seen their profits decline because centralized control lacks local sensitivity. In the mid-'90s, Ford centralized global management. "That move, Ford execs now say, took Ford of Europe's focus off local strategy. As a result it lacks competitive offerings in segments that make up 35 percent of the European market" (Welch and Terney 2000:29). In contrast, Toyota's success is said to be due to decentralization of product development and marketing strategies (Oude Weernink 2000). The clothing retailer C&A in Europe standardized buying and advertising in Europe in 1997. In June 2000 the company decided to close all 109 shops in the United Kingdom and Ireland because of substantial losses. The taste of the British and Irish consumers is different from continental Europeans (NRC Handelsblad, June 15, 2000). Also continental Europeans vary in taste, so at the end of the year 2000, C&A had re-localized both buying and advertising.

In the year 2000 the Coca-Cola Company decided to get closer to local markets because of declining profitability. Coca-Cola's new CEO Douglas Daft was quoted in the Financial Times (March 27, 2000): "We kept standardizing our practices, while local sensitivity had become absolutely essential to success". Coca-Cola's local managers and bottlers now have more leeway to set pricing, tailor ad campaigns and even introduce new brands (Foust et al. 2000:33). The Coca-Cola Company launched a series of "innovation centers around the world, where scientists work directly with marketing executives to develop, package, and sell new drinks for local markets". Coca-Cola's marketing chief Stephen C. Jones states that the "big successes have come from markets where we read the consumer psyche every day and adjust the marketing model every day" (Byrnes 2000:126). Coca-Cola clearly follows a contrasting strategy to the one by Procter & Gamble and Unilever. Instead of slashing products and brands, Douglas Daft, Coca-Cola's chairman "envision[s] a day when Coke will offer 2,000 [different local products] or more, many of which will be new juices, teas and hybrid products such as carbonated tea" (Foust and Rubin 2000:86).

Our findings not only demonstrate that people's habits do not converge, they also indicate that with converging incomes, people's habits diverge. This is reflected in ownership and usage of many products over time, which follows a common pattern. For many new commodities initially income differences explain differences in ownership. At some point in time, ownership across countries has reached maximum convergence. When that point is reached, ownership and usage start to diverge. The differences can be explained by culture. In Europe, around 1990, both ownership of television sets and cars per 1,000 inhabitants had converged. At the end of the century countries had diverged with respect to the numbers of television sets owned per family, ownership of wide screen TVs, viewing time and numbers of cars owned per family. The patterns followed by "old" technology can be used to predict the pattern of "new" technology. New technology (e.g. computers) has not reached the point of convergence, so differences between countries are mainly related to national income, but its future can be predicted. We have found that the older the product category, the stronger the influence of culture. This explains why food products are persistently culture-bound.

The wealthier countries become, the more manifest the influence of culture on consumption. When people possess more or less enough of everything, they will spend their incremental income on what most fits their value pattern. Americans will buy more cars, the Dutch will buy more luxurious caravans (holiday trailers) and the Spanish will eat out even more than they do now.

6.1.2. The myth of global advertising

Soft drinks, soaps and cigarettes are the most globalized product categories. In chapter four we suggested that this might be due to the dominance of a few early multinationals and their global brands such as Coca-Cola, soap brands by Procter & Gamble and Unilever and Marlboro. Their products and brands have converged with converging incomes in Europe, but convergence has stopped at a threshold, a point where cultural factors explain the remaining differences. While worldwide income is the primary factor explaining variance of these products, in Europe cultural factors explain variance. It is likely that initially the early global brands have caused convergence of their categories because of their advanced marketing. With increased global competition the companies of these global brands searched for efficiency in operations including globalization of their advertising. These global, standardized advertising campaigns in turn are likely to have stopped the process of convergence and even have *caused* the now existing differences between countries. Global campaigns are generally based on added value. These values are a reflection of the values of the culture of the country of origin of the advertising campaign, the culture of company management and advertising agency people who created the ads. These values appeal most to people of cultures of similar values and less to people of different values.

Most advertising for soft drinks¹ and cigarettes includes Anglo-American (masculine) values, the national culture of the dominant players in the market. The only variable explaining variance of soft drinks is masculinity. We have found no other variables that can explain variance. So there is a strong case for the suggestion that the

¹ Leading Anglo-American soft drink brands are Coca-Cola, Pepsi-Cola, Sprite, Fanta, Seven-Up, Schweppes, Liptonice. Advertising for these brands frequently reflects the need for success, often focusing on male success with women.

total of advertising for soft drinks, including Anglo-American values has added masculine values to the category. Variance of cigarette sales is explained by uncertainty avoidance and by masculinity. The explanation of the influence of uncertainty avoidance is that cigarette smoking reduces stress. The global brand Marlboro with its ubiquitous cowboy symbol is likely to have associated smoking with masculine values. Other examples of how a global advertising approach is likely to have caused differences instead of similarities with respect to ownership of brands, is branding and advertising for branded wrist watches. Examples are Rolex and Swatch. In Europe, ownership of Rolex correlates with individualism, values central in the global advertising campaign¹. Swatch ownership correlates with masculinity. Status values are central to the brand positioning of Swatch, which has become a collector's item. Ownership of - preferably the latest model - appeals to inverted snobbery.

If status symbols are used in global campaigns, the result will be that highest market shares are in the countries where status symbols are most appealing. So global advertising has not led to global homogeneity. It is likely to have caused differences because of the values of the company and advertising agency being reflected in global advertising. A similar effect can be expected from global advertising for the various ice cream brands (Magnum, Mars etc.), all reflecting strong individualist values (even egoism)². It will not lead to homogeneity, but rather to heterogeneity.

So the paradox is that global advertising has not led to harmonization, it has worked in the opposite way: It is likely to have *caused* differences in consumption across countries.

6.1.3. The myth of global communities

One of the preconditions of global advertising is the existence of homogenous global segments across borders with similar values. The young urban professional in Milan is supposed to have more in common with his counterpart in London than he/she has with his peer in the nearest village and the teenager in Germany is not different from the teenager in Hoboken. Focus on similarities or marketing universals rather than the differences has led international marketers to search for market segments of people with similar lifestyles and values across countries.

Business travelers and teenagers are most often cited as examples of such homogeneous groups. These are the people who are expected to watch CNN and MTV, and increasingly use the Internet, a habit also expected to homogenize people's values.

¹ The global advertising campaign for Rolex associates the brand with people who have distinguished themselves from others. These are professionals of all sorts: Musicians, scientists or sports people. Examples are the ballet dancer Sylvie Guillem, the opera singer Cecilia Bartoli, the conductor Lorin Maazel, the cello player Yo-Yo Ma, the golfer Anika Sorenstam, the oceanographer Dr. Sylvia Earle or the anonymous Sirius Sledge patrols in Greenland. The Rolex brand is not associated with plain success, it is associated with how these people distinguish themselves professionally from others.

² Television advertising for many of these brands focuses on "not-sharing", suggesting the product is so good one prefers not to share it with others. The pay-off by Magnum is "Life is all about priorities". One example of a commercial for the after dinner Magnums (the small ones in a box of eight) is a commercial referring to the fairy tale "Snowwhite" where the latter eats all eight magnums herself, not wanting to share them with the dwarfs. This approach is likely to be effective in the Netherlands, but not in Spain.

According to Assael (1998), author of one of the leading textbooks on consumer behavior, exposure to global youth media such as MTV has encouraged the development of a global teenager with common norms and values. However, several value studies show that between countries young people vary as much as grown-ups. White (2000) adds to this that "an Italian teenager may be just like a Dutch teenager when he or she is listening to music or wondering which brand of shoes to buy, but most of the time, and in most purchasing situations, a teenager is distinctively and differently Italian or Dutch." Because there are no global teenagers the music channel MTV, originally meant to be a global music channel for the young, had to localize its content. "MTV launched a Pan-European channel in 1987. German veejays peppered their speech with English and Italian. Content was the same from market to market. By the early 1990s, local competition had forced MTV to revamp its strategy. Now the German channel has local veejays who show German videos" (Dogar 2000:66). Music has become local. In Germany, the world's third-largest music market after the United States and Japan, local performers account for 48 percent of the \$3.5 billion in yearly sales (Economist, September 12, 1998). Also the drivers for Asian youth vary. "Young Asians may be typically Western on the surface, but when you scratch beneath traditional values hold strong. .. The main drivers of Asian young reflect Asian core values such as hard work, aspiration towards money and display of success via branded goods, status symbols and showing off" (Cooper 1997:19).

Global communities with similar values do not exist. Global homogeneous markets exist only in the minds of international marketing managers and advertising people. Even people with similar lifestyles do not behave as a consistent group of purchasers because they do not share the same values. Yes, there are young people and Yuppies and greying populations everywhere in Europe, but marketing communications cannot use similar motives and arguments because they do not have similar values. This is demonstrated by the EMS findings of ownership of luxury products. More than any other findings, the results of the calculations of data on luxury articles demonstrate that the high-income target, consisting of people who read international media, is not one homogeneous cross-border target group for high-touch and high-tech luxury articles, as so often assumed. For expenditures on expensive luxury articles by this high-income group in Europe, the coefficients of variation vary between .34 and .59. The average coefficient of variation for ownership of expensive jewelry and suit or dress (> £500), briefcase or handbag (> £200) and shoes (> £100) in 1999 was .47. Ownership of both expensive and cheap watches is culture-bound and so is consumption and usage of many other luxury articles and drinks. In the developed world, variance of ownership of luxury articles can only be explained by cultural factors. This implies that for these products global advertising will be less effective than culturally adapted advertising.

6.1.4. The myth of culture-free products

In the early 1980s, when there were relatively few global brands of luxury articles such as watches and fashion clothing, these luxury goods were viewed as more or less culture-free, because global advertising for these brands was relatively successful. However, twenty years later there is an abundance of luxury brands and some of these brands appeal more to some cultures than to others. Standardized global advertising has partly caused this, as it is never culture-free. Any advertisement reflects the values of the culture where it originated and thus will be most appealing to members of cultures with similar values. An example is the global advertising campaign for Rolex, described before. Because of the success of the global campaign for Coca-Cola in the past, the soft drink category has been considered to be culture-free. Our findings demonstrate the opposite.

6.1.5. The myth of the new media

Differences in media use across countries are persistent because media are part of peoples' culture. A strong example is newspaper readership. Since 1950 the differences in circulation of daily newspapers worldwide have been stable. In economically homogeneous areas, such as Europe, the differences are related to culture. Ownership of television sets at the national level may have converged, but differences in viewing time have not converged and are culture-bound.

Access to the Internet and how it is used are also culture-bound. The Internet has first been adopted by the more innovative cultures (United States, Scandinavia) and differences in usage are largely explained by uncertainty avoidance. The Internet can be used for different purposes, such as for e-mail, for educational and scientific reasons, for business purposes or for leisure (EMS 1999). In Europe the different purposes are related to cultural differences. Thus, after only a decade of Internet existence in Europe, the way it is used varies across cultures. The Internet does not change people's habits or values. It confirms and enhances existing values, habits and practices. "The Internet is by its nature subversive: It gets information to people who don't have it. That's why [in Latin America, large power distance cultures] officials are loath to give up control" (Smith 1999:37). While in the Western world, the adoption of the Internet is bottom-up, in Asian countries it is pushed and controlled by governments. "Governments intent on boosting competitiveness are a driving force. Taiwan wants 50,000 companies to be online by 2001, Thailand [in 1999] passed a law requiring all export and import documents to go online before 2000 (Moore and Einhorn 1999:30).

The Internet is a new medium and it is adopted by people for doing things they are used to do. In Europe, surveys measuring the applications of the Internet¹ basically measure variance of existing preferences for which the Internet is used. In the collectivist cultures, where personal contacts are appreciated, people say they will adopt the Internet to contact a politician. In the feminine cultures, where people adopt new media to enhance the quality of life, people say they will adopt the Internet for e-mail access, home banking and electronic newspapers and they prefer to get their information on the

¹ General bi-annual Eurobarometer surveys and the Eurobarometer report "Measuring Information Society 1997". Eurobarometer asks people's preferences for method and source of information about the EU and the Euro.

EU and the Euro by Internet or computer terminal. The Internet and computers have become part of the total set of media including the "old ones". If people are used to reading newspapers to be informed they will prefer their newspapers also to provide information about the EU and they will also adopt electronic newspapers. Thus, preference of the press for information about the EU is correlated with small power distance (58 percent of variance is explained by power distance). Preference of the Internet for information about the EU is correlated with low masculinity (57 percent is explained by masculinity).

An Asian example of adoption of the Internet for a culture-specific activity is the Bandai i-service in Japan. In Japan, cartoon magazines have always been very popular. One of the first, most popular services to the subscribers of NTT DoCoMo's i-service (Internet by mobile phone) was by Bandai, allowing subscribers to download cartoon characters to their mobile phones (Nikkei Trendy, March 2000).

The conclusion from this is that the people who have integrated the Internet in their daily life will use it to enhance current activities. They will use it for all things they have been doing before, but the new media will enhance these activities. We see the same phenomenon for mobile phones. People who are used to have long talks on the telephone will even talk more frequently when they have a mobile phone. People who like to communicate frequently with their loved ones will do this even more when they have a mobile phone. In Spain, in May 2000, an ad for mother's day offered a telephone for children, so that their mother could stay in touch with them all the time. Such an offer would not be popular in small power distance cultures where children want to be independent from their mothers. In Italy, in 2000 there are five times as many mobile phones as PCs. The high penetration and frequent use of the mobile phone in Italy can be explained by the weblike nature of the family, where everybody wants to talk to everybody else. "Seventy percent of unmarried men aged up to 30 still live with their mothers. Of those who do not live with their mothers, 70 percent ring her every day" (Economist April 1, 2000:24). Moslems in the Netherlands, wanting to conform to the strict rules of Ramadan in November 2000, could apply to an SMS service by Maghreb.nl, a Moroccan Internet lifestyle magazine that sends a daily list of standard times for prayer and eating.

People will use the new media for the interests and habits they acquired in the country where they grew up. These habits are part of their national culture and they are persistent. McLuhan's (1964) philosophy of the new media innovations, that they are merely enhancements or extensions of ourselves, is still valid. The consequence of this philosophy is that new media like the Internet will not lead to convergence. The leading article in the Economist of August 19th 2000 says: "As new gizmos come and go, human nature seems to remain stubbornly unchanged". The new media may even lead to divergence in Europe and probably more worldwide. Oliver Cleaver (2000), Media Director at Kimberly Clark Europe, subscribes to this point of view and is even pessimistic about it. He states: "The new media belong to global business and to a minority of consumers who are affluent, smart and wired enough to be able to use its potential to make themselves more affluent, smarter and better wired. .. The new media are not creating a global village, they are helping to destroy it."

6.2. CULTURE AND CONSUMPTION

When differences between countries remain stable or become larger, companies will want to understand the differences. Our research covered over 35 product, service and media categories and business areas: Housing, telephony, television, newspapers, radio, passenger cars, advertising expenditures, various fresh food products and processed food, cigarette and alcohol consumption, clothing and footwear, energy consumption, health and medical care expenditures, transport and communications, leisure, furniture, soft drinks, mineral water and other beverages, the communication means of the new economy, including the Internet, computers, faxes and mobile phones, consumer electronics, luxury goods, such as wrist watches and cameras, household appliances, personal care products, soaps and household products, travel, credit cards, insurance and investments. While at macro level convergence was found, at micro level we found many examples of divergence or stable differences between countries. In most cases these differences can be explained by Hofstede's dimensions of national culture. The dimensions that explain variance vary by product category. Specific product categories tend to have specific cultural loadings. For example, purity is a cultural variable for food and luxury articles tend to have status value.

6.2.1. Product categories are culture-specific

Not only are specific cultural values attached to product categories, over time different dimensions can explain variance. Variance of telephone main lines in Europe is initially explained by income and individualism, while at the end of the century low masculinity is the explaining variable. Over time, one dimension can be a predictor but the direction can change. While, for example the adoption of new technology is first driven by weak uncertainty avoidance, when it becomes a commodity, different cultural loadings become manifest. In some cases the direction of a correlation with a specific dimension may turn from negative to positive or the other way round. An example is car ownership. Until 1980 car ownership correlated negatively with uncertainty avoidance. Cars were still a relatively new technology. In 1997 ownership of three cars was positively correlated with uncertainty avoidance. When ownership of passenger cars changes from a luxury to a commodity, its cultural loading becomes more manifest. This is demonstrated by the differences at micro-level in Europe. While at macro-level (cars per 1,000 population), Europe has become more or less homogeneous, the same region appears to be quite heterogeneous with respect to data at micro level, such as the number of cars owned by families, the type of car owned, preference of new over second hand cars, and attitudes and behavior with respect to cars, such as interest in the technological aspects of cars and buying decision making. Masculinity and strong uncertainty avoidance predict ownership of (new) cars.

6.2.2. Explaining variables operate in hierarchies

We found that explaining variables operate in hierarchies. Some consumption habits - such as eating and drinking - are directly related to climate while others are only influenced indirectly via culture, or collective memory. Over time, climatic differences have led to differences in human behavior and attitudes that have become part of the society people belong to, which in turn influence their consumption patterns. Thus, while

climate can be viewed as a first stage in the hierarchy, the second stage in the hierarchy is when the social environment causes behavioral differences. The further a society is developed with respect to industrialization, modernization or globalization, the greater the influence of social, psychological or cultural variables are on national or local behavior. Historical learning has caused the influence of climate of the past to remain in the public memory. An example is how, despite the ubiquitous refrigerator, people in warm climates still do not trust fresh milk as well as other food products. Climatic differences are an indirect explaining variable for consumption differences, but other variables, lower in the hierarchy are better predictors for differences in consumption.

6.2.3. Value domains

Specific product categories and/or consumption domains are related to specific value domains. We have defined value domains as clusters or configurations of cultural values that apply to domains of consumer behavior and that are related to specific product categories or consumer activities. When economic and demographic systems converge, income and demographic variables are no longer useful criteria for segmenting international markets and value domains are likely to be more useful. Groups of countries can be formed according to value domains that explain consumption differences. A value domain can be defined by one or a configuration of dimensions. We have described six examples of value domains derived from our research findings: Purity in food, locus of control, status, active-passive orientation in leisure, dependence and harmony, and quality of life. The purpose is to make our findings applicable to international marketing and advertising practice.

6.3. CULTURE AND CONSUMER BEHAVIOR

Cultural dimensions not only have specific influence on various product categories, they also influence consumer behavior in different ways. We found lack of insight of the role of culture in consumer behavior theory, which may be due to the fact that generally culture is viewed as an environmental factor although culture influences the central values of consumers and thus most of consumer behavior. We adapted a model to structure consumer behavior theory and culture's consequences by Manrai and Manrai (1996). In this model culture plays a central role. We examined a few consumer behavior concepts and theories cross-culturally.

6.3.1. The rational consumer and the role of income

Our findings that values of national culture influence consumer behavior defy the concept of a rational consumer. If consumer decisions would be based on rational arguments such as price, consumption across countries would be much more homogeneous. Rationality in consumer behavior also presumes the influence of information. The Internet enhances the possibility of information gathering. But there is a limit to the amount of information people can handle. An increased overload of information will not make consumers better decision-makers.

When observing the relationship between income and some new products, one may be tempted to conclude that the richer people become, the more they will spend on these

products. We have seen that for some products for which investments must be made, in the developed world income is the initial explaining variable but analysis at micro level often only points at relationships with culture. For other products only cultural variables can explain variance. So greater wealth will not make people equally spend more in all countries. In postscarcity societies the concept of the rational consumer is obsolete. With converging incomes across countries, the influence of income on buying decisions decreases and so does the importance of ratio in decision making. Values are the main variable to explain consumer behavior.

Engel's laws, saying that the percent of private consumption spent on food is assumed to decrease with increasing incomes, need some modification. For single countries the theory is true, but it does not explain differences between countries. In the collectivist cultures, consistently people spend more on food. A conclusion is that Engel's law applies better to the individualist cultures than to the collectivist cultures.

6.3.2. Attitudes, motives, lifestyle and culture

As people's attitudes are guided by their values, also attitudes vary with culture. Differences in attitudes explain differences in behavior. We have found several instances of attitudes driving behavior and vice versa. Examples are how confidence in the press drives newspaper readership and how attitudes to advertising change with economic development. Materialism is an attitude to consumption that is culture-bound.

Differences in sensitivity to certain product attributes and advertising appeals can be explained by motives and their underlying cultural values. For each product category the important motives vary. For mineral water it is purity, for soft drinks it is status. For cars, motives vary between safety, design and environmentally friendly, that are all related to different cultural values.

Within cultures lifestyle segmentation is useful, as it adds value to economic and demographic segmentation. For cross-national marketing the concept is less applicable because value differences of national culture are overriding. Even if across countries certain groups of people can be defined with respect to ownership of specific products, the motives for buying these products vary so strongly, that for developing advertising across countries these lifestyle groups are not useful. Yuppies exist both in Spain and in the Netherlands, but their consumption behavior is very different. Even if they have a computer and access to the Internet just like Yuppies in the Netherlands, they will use it for different purposes and they will use it less because they prefer to get together with family and friends instead of sitting behind a computer.

6.3.3. Decision making behavior is not universal.

Both consumer and business decision making varies by culture. The difference in the amount of social influence exerted on buying behavior influences decision making of consumers. Social influence varies with culture. The degree of role differentiation influences the involvement of partners in decision making.

Business people are generally considered to be a "culture-free group" because their decision making process is assumed to be rational, as compared with consumer decision making. We have found evidence that even decision making by business people is culture-bound.

6.3.4. Diffusion of innovations

Diffusion is the process by which an innovation is communicated through certain channels over time among the members of social systems (Rogers 1962). The diffusion process is not universal. The theory was developed in the United States and its concept may be valid for other cultures, not its application. We conclude that diffusion patterns vary across countries, and that the differences can be explained by culture. Also the type of relationship between innovativeness and culture varies by product category. The varying influences of culture on consumption are reflected in the diffusion of innovations. Although for new technology weak uncertainty avoidance is the general predictor, the speed of adoption is likely to vary by product category and the category related dimensions are the explaining variables of variance in adoption.

6.3.5. Media and advertising

We have demonstrated stable relationships between culture and media behavior. An example of a long-term relationship with culture is between newspaper readership and power distance. People adopt the new media for similar activities as the old media. For the more textual oriented individualist cultures the press has an informative role and for the more visually oriented collectivist cultures television has an informative role, in general and for advertising. If people prefer using specific media, they also attribute an informative role to advertising in these media.

Differences in total advertising expenditures per capita across countries are related to national wealth. The differences in distribution of advertising expenditures across media types follow the relationships between culture and media use.

6.4. CONSEQUENCES FOR PRACTICE

The international marketing and advertising industry should take advantage of knowledge of the long-term effects of culture on consumer behavior. Understanding culture's influence is likely to be of particular use for predictions of international market development, international branding, marketing and advertising strategy.

6.4.1. Consequences for strategy

Differentiation and positioning strategies are a Western phenomenon. In Asian, collectivist cultures the company brand is a more frequent phenomenon, because an important aspect of marketing in collectivist cultures is to build relationships between companies and consumers. Western companies, when marketing in collectivist cultures should focus their marketing communications more on building relationships between the company and consumers than on strong positions of their individual product brands.

We suggest three stages of international market development with varying consequences for marketing communications. (1) For all sorts of durables and technology, but also for advanced new food products income is the main driver for market penetration of the generic product. Products and marketing-communications can be global. (2) After markets have become saturated with a generic product, differentiation takes place. Between-market differentiation is driven by national wealth and cultural factors. Products can be standard, marketing-communications strategy must be adapted. (3) In economically homogeneous areas only cultural factors distinguish usage between countries. Both products and marketing-communications must be adapted.

Our findings of the influence of culture on consumption demonstrate the usefulness of cultural variables for the segmentation of markets. Clustering countries according to cultural variables is useful for differentiation of marketing and sales strategy as well as advertising. For advertising, the application is to cluster countries according to culture-bound motives. Because nearly all product categories are related to one or more dimensions, for each product category a culture map can be made.

As consumer behavior varies across cultures, global standardized advertising is not equally effective in all markets. It is likely to be wasted in markets where consumer values are different from the values of the advertising campaign.

6.4.2. Consequences for market research

Our findings have consequences for marketing and advertising research. In a discussion on global advertising at www.aef.com (Advertising Education Foundation) on December 6, 2000, Denis Budniewski, SVP, Managing Director of Saatchi and Saatchi, stated: "You can't test everywhere. You need to be choiceful and representative. For example, you may decide to only test in two European countries versus all fifteen". Our findings demonstrate that two countries in Europe are not representative for all fifteen.

Global companies tend to rely on global surveys. Often questionnaires are developed in the home country and translated for use in many other countries. Cultural differences can cause biased response. Not only do response styles vary by culture, also answer categories to measure usage and attitudes are culture-bound. Answer categories like "somewhat involved" for measuring involvement in decision making or "drink occasionally" for measuring consumption of luxury drinks can result in biased response. International marketing strategies that rely on international research using culture-bound questions and answer categories can easily fail.

6.5. RECOMMENDATIONS FOR FURTHER RESEARCH

Throughout our study we have pointed at the need for further research. In this section we summarize four areas of further research.

We described six value domains relating to consumption domains and related product categories. The descriptions were derived from findings of consumption differences for various products and related values. The six value domains should be validated by factor analysis including values and consumption data. By including more values and consumption data, more different value domains are likely to be discovered.

We concluded that global advertising does not include universal global values. Instead, the values of the designers of global advertising campaigns are recognized. As a result these global advertising campaigns are more effective in cultures of similar values. To further validate our finding of how global advertising works, content analysis of global advertising campaigns should be done. Ideally this should be accompanied by effectiveness measurements.

We pointed at the non-universality of various consumer behavior theories and concepts. In this study we only pursued theories found in literature. There are a few consumer behavior domains that are not covered, in particular brand loyalty and complaining behavior. These domains should be subject to further research. Also the topic of diffusion of innovations, although covered most widely in literature, should be further analyzed, in particular with respect to the effect of culture on innovation and imitation.

We have described patterns of convergence and divergence including a time factor. With variations by product category, at longer or shorter time spans, there are periods of convergence that stop at a certain ceiling, and are followed by periods of divergence. A number of variables such as national income, cultural factors, degree of homogeneity and product category, if included in a mathematical model, could predict moments of convergence or divergence of new products. A challenge for econometricians would be to calculate a formula for the time factor, ceilings and thresholds of convergence-divergence for various new products.

REFERENCES

- Aaker, Jennifer L. and Maheswaran, Durairaj. 1997. "The Effect of Cultural Orientation on Persuasion". *Journal of Consumer Research*. Vol. 24. December. pp 315-328
- Aaker, Jennifer L. and Williams, Patti. 1998. "Empathy versus pride: the influence of emotional appeals across cultures". *Journal of Consumer Research*. Vol. 25. December. pp 241-261
- Abe, Shuzo, Bagozzi, Richard P. and Sadarangani, Pradip. 1996. "An investigation of construct validity of the self-concept: Self-consciousness in Japan and the United States." In: Manrai, Lalita A. and Manrai, Ajay K. eds 1996. "Global perspectives in cross-cultural and cross-national consumer research". International Business Press/The Haworth Press. New York, London
- Abrahamson, Paul R. and Inglehart, Ronald. 1995. "Value Change in Global Perspective". University of Michigan Press
- Adler, N. J. 1991. "International Dimensions of Organizational Behavior", Wadsworth Publishing Company. pp 30-31
- Adstats World Adspend Survey. 1997. Admap. p 50
- Agrawal, Madhu. 1995. "Review of a 40-year debate in international advertising". *International Marketing Review*. Vol 12. No 1. pp 26-48
- Albers, N.D. 1994. "Relating Hofstede's Dimensions of Culture to International Variations in Print Advertisements: A Comparison of Appeals". A Dissertation Presented to the Faculty of the College of Business Administration University of Houston. May
- Albers-Miller, Nancy D. and Gelb, Betsy D. 1996. "Business advertising appeals as a mirror of cultural dimensions: A study of eleven countries". *Journal of Advertising*. Vol. 25. No. 4. Winter. pp 57-70
- Alden, Dana L; Steenkamp, Jan-Benedict and Rajeev Batra. 1999. "Brand positioning through advertising in Asia, North America, and Europe: The role of global consumer culture". *Journal of Marketing*. Vol. 63. January. pp 75-87
- Allen, Michael W. and Ng, Sik Hung. 1999. "The direct and indirect influences of human values on product ownership." *Journal of Economic Psychology*. Vol. 20, No. 1. pp 5-39
- Althen, G. 1988. "American Ways". Intercultural Press, Inc, Yarmouth, Maine
- Andreasen, Alan R. 1990. "Cultural Interpenetration: A Critical Consumer Research Issue for the 1990s". *Advances in Consumer Research*. Vol. XVII. Goldberg, Marnu E. and Pollay, Richard W. Eds. Provo, UT. pp 847-849
- Ang, Rebecca P. and Chang, Weining C. 1999. "Impact of Domain-Specific Locus of Control on Need for Achievement and Affiliation". *The Journal of Social Psychology*. Vol. 139, No. 4 pp. 527-529
- Anholt, S. 2000. "Another one bites the grass, Making Sense of International Advertising". John Wiley & Sons, Inc.
- Anonymous. 1999. "Windows on the World". Admap. February
- Antonides, Gerrit. 1998. "An attempt at integration of economic and psychological theories of consumption." In: "European Perspectives on Consumer Behaviour". Prentice Hall Europe.
- Appelbaum, U. and Halliburton, C. 1993. "How to develop international advertising campaigns that work: The example of the European food and beverage sector". *International Journal of Advertising*. 12. 223-241
- Appelbaum, Kalman and Jordt, Ingrid. 1996. "Notes toward an application of McCracken's "Cultural categories for cross-cultural consumer research". *Journal of Consumer Research*. Vol. 23. December. pp 204-218
- Assael, Henry. 1998. "Consumer Behavior and Marketing Action". 6th Edition. South Western College Publishing. Cincinnati, Ohio
- Asian Marketing and Advertising, Various years. Media data on TV viewing and press readership in Asia. Adweek Asia, Hong Kong

- Avtgis, Theodore A. 1998. "Locus of control and persuasion, social influence, and conformity: A meta-analytic review". *Psychological Reports*. Vol. 83, No. 3. pp 899-903
- Baker, Michael J. (Ed.). 1995. "Marketing Theory and Practice". 3rd edition. Macmillan Business
- Bakonyi, Stefano. 1958. "Divergence and convergence in culture and communication." *The Journal of Communication*. Vol. 8. No. 1 pp 24-30
- Bamossy, G.J. and Papadopoulos, N.J. 1987. "An assessment of reliability for product evaluation scales used in country of origin research." *World Marketing Congress, International Marketing Series*, Vol. 3.
- Banerjee, Ashish. 1994. "Transnational advertising development and management: An account planning approach and a process framework." *International Journal of Advertising*. Vol. 13. pp 95-124
- Bartos, Rena. 2000. "Women as an Advertising Target. An International Overview". In: John Philip Jones Ed. "International Advertising, Realities and Myths". Sage Publications, Inc
- Bass, Frank M. 1995. "Empirical generalizations and marketing science: A personal view." *Marketing Science*. Vol. 14. No. 3. pp G6-G19
- Batra, R and Sinha, I. 2000. "Consumer-Level Factors Moderating The Success Of Private Label Brands". *Journal of Retailing*, Vol. 76. No. 2 pp 175-191
- Beatty, Sharon E.; Homer, Pamela M. and Kahle, Lynn R. 1988. "Problems With VALS in International Marketing Research: An Example From An Application Of The Empirical Mirror Technique". *Advances in Consumer Research*. Vol. 15. Provo UT. pp 375-380
- Becattelli, Ian and Swindells, Alan. 1998. "Developing better pan-European campaigns". *Admap*. March 1. pp 12-14
- Becker, C. 1997. "Hair and cosmetic products in the Japanese market". *Marketing and Research Today*, February
- Belk, Russell W. 1996. "Hyperreality and globalization: Culture in the age of Ronald McDonald." In: Manrai, Lalita A. and Manrai, Ajay K. eds 1996. "Global perspectives in cross-cultural and cross-national consumer research". International Business Press/The Haworth Press, Inc. New York, London
- Bernstein, Aaron. 2000. "Down and out in Silicon valley". *Business Week*. March 27. pp 112-114
- Biswas, A, Olsen, J.E. and Carlet, V. 1992. "A comparison of print advertisements from the United States and France". *Journal of Advertising*, Vol. 21. No. 4. December
- Boddewyn, Jean. J. and Hansen, D.M. 1977. "American marketing in the European Common Market, 1963-1973". *European Journal of Marketing*. Vol. 11. No. 7. pp 548-563.
- Boddewyn, Jean J., Soehl, R. and Picard J. 1986. "Standardization in international marketing: is Ted Levitt in fact right?". *Business Horizons*. Vol. 29. November-December pp 69-75.
- Boddewyn, Jean J. and Grosse, Robert. 1995. "American marketing in the European Union. Standardization's uneven progress (1973-1993). *European Journal of Marketing*. Vol 29. No 12. pp 23-42
- Bonnal, F. 1990. "Attitudes to advertising in six European countries". *Admap*. December 1
- Bradley, Frank. 1991. "International Marketing Strategy". Prentice Hall International
- Brewer Doran, Kathleen. 1997. "Symbolic consumption in China: The color television as a life statement." *Advances in Consumer Research*. Vol. 24. pp 128-131
- Brown, D.L. 1923 "Export Advertising". Ronald Press. New York. p. 190
- Bullmore, Jeremy. 2000. "Alice in Disneyland, A Creative View of International Advertising". In: John Philip Jones Ed. "International Advertising, Realities and Myths". Sage Publications
- Burger, P. 1996, "Gaten in de taal" (Holes in the language). *Onze Taal*, June
- Buzzell, Robert D. 1968. "Can you standardize multinational marketing?" *Harvard Business Review*. November-December. pp 102-113
- Byrnes, N. 2000. "Brands in a bind" *Business Week*. August 28. pp 124-127
- Cafferata, Patricia; Horn, Martin I. and Wells, William D. 1997. "Gender Role Changes in the United States". In: Kahle, Lynn R. and Chiagouris, Larry (Eds). 1997. "Values, Lifestyles, and Psychographics". Lawrence Erlbaum Associates, Publihers. Mahwah, New Jersey
- Caller, Linda and Byfield, Sheila. 1999. "Managing transnational brands in times of change". *International Marketing Research*. Mary Goodyear Ed. ESOMAR, Amsterdam

- Cateora, Philip R. 1990. "International Marketing". 7th edition. Irwin, Homewood, IL
- Chan, K.K.W. 1995. "Information content of television advertising in China". *International Journal of Advertising*. 14. 365-373
- Chapman, Malcolm. 1996-1997. "Preface: Social anthropology, business studies, and cultural issues." *International Studies of Management and Organisation*. Vol. 26. No. 4. Winter
- Chen, Henry C.K. and Allmon, Dean. 1998. "Perceptions of the media in three different cultures: the US, Australia & Taiwan". *International Journal of Advertising*. Vol. 17. No. 2. pp 233-253
- Cheng, H 1994. "Reflections of cultural values: A content analysis of Chinese magazine advertisements from 1982 - 1992". *International Journal of Advertising*. Vol 13 pp 167-183
- Cheng, Hong and Schweitzer, John C. 1996. "Cultural values reflected in Chinese and U.S. television commercials." *Journal of Advertising Research*. May/June. pp 27-45
- Chhabra, Surjit S. 1996. "Marketing adaptations by American multinational corporations in South America." *Journal of Global Marketing*. Vol. 9. No. 4. pp 57-74
- Clark Jr., Harold F. 2000. "Brand and Consumer Values in Global Marketing". In: John Philip Jones Ed. "International Advertising, Realities and Myths". Sage Publications
- Clark, Terry. 1990. "International marketing and national character: A review and proposal for an integrative theory." *Journal of Marketing*. October. pp 66-79
- Clawson, C. Joseph and Vinson, Donald E. 1978. "Human Values: A Historical and Interdisciplinary Analysis". *Advances in Consumer Research*. Vol. V. Keith Hunt Ed. Ann Arbor. pp 396-402
- Colvin, Michael; Heeler, Roger and Thorpe, Jim. 1980. "Developing international advertising strategy." *Journal of Marketing*. Vol. 44. Fall. pp 73-79
- Consumer Europe 1997, a compendium of pan-European market information, by Euromonitor PLC, London. Euromonitor PLC, 60-61 Britton Street, London EC1M 5NA, Great Britain
- Cooper, Peter. 1997. "Western at the weekends". *Admap*, October. pp 18-21
- Costa, Janeen A. and Bamossy, Gary J. eds. 1995. "Marketing in a multicultural world". Sage Publications
- Cote, Joseph A. and Tansuhaj, Patriya S. 1989. "Culture Bound Assumptions in Behavior Intention Models". *Advances in Consumer Research*. Vol. 16. Srull, Thomas K. Ed. Provo, UT. pp 105-109
- Craig, C. Samuel; Douglas, Susan P. and Grein, Andreas. 1992. "Patterns of convergence and divergence among industrialized nations: 1960 - 1988". *Journal of International Business Studies*. Vol. 23. No. 4. pp 773-786
- Craig, C. Samuel and Douglas, Susan P. 1996. "Developing strategies for global markets: An evolutionary perspective." *Columbia Journal of World Business*. Vol. 31. No. 1. pp 70-81
- Craig, C. Samuel and Douglas, Susan P. 2000. "Building global brands in the 21st century". *Japan and the World Economy*. Vol. 12. pp 273-283
- Cutler, B.D. and Javalgi, R.G. 1992. "A cross-cultural analysis of the visual components of print advertising: The United States and the European Community". *Journal of Advertising Research*. January/February. pp 71-80
- Cutler, B.D. Javalgi, R.G. and Erramilli, M.K. 1992. "The visual components of print advertising: A five-country cross-cultural analysis". *European Journal of Marketing*, Vol. 26. No. 4. January pp 7-20
- Cutler, Bob D.; Erdem, S. Altan and Javalgi, Rajshekhar G. 1997. "Advertiser's relative reliance on Collectivism-Individualism appeals: a cross-cultural study." *Journal of International Consumer Marketing*. Vol. 9 No. 3. pp 43-55
- Czinkota, Michael R. and Ronkainen, Ilkka A. 1993. "International marketing" 3rd edition. The Dryden Press. Fort Worth.
- Dawar, Niraj and Parker, Philip. 1994. "Marketing universals: Consumers' use of brand name, price, physical appearance, and retailer reputation as signals of product quality". *Journal of Marketing*. Vol. 58. April. pp 81-95
- Dawson, Charles. 1998. "My region, right or wrong?" *Admap*. June p 11
- Defleur, Melvin L. 1974. "Mass media as social systems." In: Schramm, Wilbur and Roberts, Donald F. 1974. "The process and effects of mass communication". University of Illinois

Press

- Diamantopoulos, A; Schlegelmilch, B.B. and Du Preez, J.P. 1995. "Lessons for pan-European marketing? The role of consumer preferences in fine-tuning the product-market fit." *International Marketing Review*. Vol. 12. No. 2. pp 38-52
- Dibb, Sally; Simkin, Lyndon, and Yuen, Rex. 1994. "Pan-European advertising: Think Europe, act local." *International Journal of Advertising*. Vol. 13. pp 125-136
- Dogar, Dana. 2000. "Changing channels". *Newsweek* June 7. pp 64-66
- Doi, T. 1973. "The anatomy of dependence". Kodansha International, Tokyo
- Doi, T. 1985. "The anatomy of self". Kodansha International, Tokyo
- Domzal, Teresa J. and Kernan, Jerome B. 1993. "Mirror, mirror: Some postmodern reflections on global advertising." *Journal of Advertising*. Vol. 22. No. 4. December. pp 1-20
- Donnelly Jr, James H. 1970. "Marketing notes and communications; Attitudes toward culture and approach to international advertising". *Journal of Marketing*. Vol. 34. July. pp 60-68
- Douglas, Susan P. and Craig, C. Samuel. 1983. "International marketing research" Prentice-Hall International Editions. Englewood Cliffs, New Jersey
- Douglas, Susan P. and Craig, C. Samuel. 1997. "The changing dynamic of consumer behavior: Implications for cross-cultural research". *International Journal of Research in Marketing*. Vol. 14. pp 379-395
- Douglas, Susan P. and Craig, C. Samuel. 1999. "Viewpoint. Competing in the next millennium: Challenges facing international marketers". *International Marketing Review*. Vol. 16 No. 2. pp 99-107
- Douglas, Susan P. and Urban, Christine D. 1977. "Lifestyle analysis to profile women in international markets. Can the same segmentation strategies be used?". *Journal of Marketing*. July. pp 46-54
- Dowdall, Mike. 1989. "The challenge of the single market for company strategy". *Admap*. June. pp 10-12
- Dunn, S. Watson. 1965. "Cross-cultural research by U.S. corporations." *Research in Brief. Journalism Quarterly*. Vol. 42. No. 3
- Dunn, S. Watson. 1966. "The case study approach in cross-cultural research". *Journal of Marketing Research*. Vol. 3. February. pp 26-31
- Dunn, S. Watson. 1976. "Effect of national identity on multinational promotional strategy in Europe" *Journal of Marketing*. October. pp 50-57
- Durvasula, Srinivas; Andrews, J. Craig; Lysonski, Steven and Netemeyer, Richard. G. 1993. "Assessing the cross-national applicability of consumer behavior models: A model of attitude toward advertising in general". *Journal of Consumer Research*. Vol. 19. March. pp 626-636
- Elinder, Erik 1965. "How international can European advertising be?" *Journal of Marketing*. April. Vol. 29. pp 7-1
- Engel, J.F., Blackwell, R.D. & Miniard, P.W. 1990. "Consumer Behavior". 6th ed. Chicago: The Dryden Press
- Eshgi, Abdolreza, and Sheth, Jagdish N. 1985. "The globalization of consumption patterns: An empirical investigation." In: Erdener Kaynak ed. "Global perspectives in marketing". Praeger, New York. pp 133-148
- Espe, Hertmut and Seiwert, Margarete. 1986. "European television-viewer types: A six-nation classification by programme interests". *European Journal of Communication*. Vol. 1. No. 3. September. pp 301-325
- Eurobarometer, Public Opinion in the European Union. Various years. Public Opinion Surveys and Research. European Commission. Belgium.
- European Advertising and Media Forecast, End of Year Advertising Expenditures statistics. November 1998. Advertising Association and the Advertising Information Group. NTC Publications Ltd.
- European Media and Marketing Survey. 1995, 1997, 1999. InterView International. Amsterdam
- Eurostat (Statistical Office of the European Communities). Annual yearbooks 1995, 1996, 1997, 1998/99. Demographic Statistics. Luxembourg: Statistical Office of the European Communities. Family Budget 1979 and 1988. Social Indicators 1960-1978.

- Evans, Ian. G. and Riyait, Sumandreep. 1993. "Is the message being received? Benetton analysed". *International Journal of Advertising*. Vol. 12. pp 291-301
- Farhangmehr, Minoo and Veiga, Paula. 1995. "The changing consumer in Portugal". *International Journal of Research in Marketing*. Vol. 12. pp 485-502
- Farley, John U. 1986. "Are there truly international products - and prime prospects for them?" *Journal of Advertising Research*. October-November. pp 17-20
- Fatt, Arthur C. 1967. "The danger of "local" international advertising". *Journal of Marketing*. January. Vol. 31. pp 60-62
- Featherstone, Mike (Ed.) 1990. "Global Culture: Nationalism, Globalism and Modernism. Sage Publications, London
- Ferguson, Marjorie. 1992. "The mythology about globalization". *European Journal of Communication*. Vol 7. no.1, March pp 69-93
- Ferraro, G.P. 1994. "The cultural dimension of international business". Englewood Cliffs. NJ. Prentice Hall
- Fisher, Robert J. and Price, Linda L. 1992. "An Investigation into the social context of early adoption behavior". *Journal of Consumer Research*. Vol. 19. December. pp 477-486
- Fitie, Ilonka, and Struik, Sophie. 1994. "Cultuur bedreigt succes global branding." (Culture threatens success of global branding). *Nieuwstribune special*. September 15. pp 20-22
- Food for Thought data, provided by Unilever Food and Beverages, Rotterdam. Food for Thought. S.A. PO Box 1554, CH-1211 Geneva 1
- Foust, D; Rocks, D and Kripalani, M. 2000. "Doug Daft isn't sugarcoating things" *Business Week*. February 7. p 32-33
- Foust, D and Rubin, D. 2000. "No, Coke is no longer 'it'." February 28. pp. 85-86
- Freiherr v. Fircks, Helmut. 1993. "Globale Werbung wirkt nicht überall gleich gut." (Global advertising doesn't work well everywhere). *Marketing + Kommunikation*. No. 20/21. May. pp 114-115
- Friesen, W. 1972. "Cultural differences in facial expressions in a social situation: An experimental test of the concept of display rules". Unpublished Ph.D. thesis, University of California, San Francisco. In: Smith, Peter B. and Bond, Michael Harris. 1993. "Social Psychology Across Cultures". Harvester Whitesheaf, New York. pp 62-63
- Ganesh, Jaishankar and Kumar, V. 1996. "Capturing the Cross-National Learning Effect: An Analysis of an Industrial Technology Diffusion". *Journal of the Academy of Marketing Science*. Vol. 24, No. 4. pp 328-337
- Ganesh, Jaishankar; Kumar, V and Subramaniam, Velaven. 1997. "Learning Effect in Multinational Diffusion of Consumer Durables: An Exploratory Investigation". *Journal of the Academy of Marketing Science*. Vol. 25, No. 3. pp 214-228
- Ganesh, Jaishankar. 1998. "Converging trends within the European Union: Insights from an analysis of diffusion patterns". *Journal of International Marketing*. Vol. 6, No. 4. pp 32-48
- García, Sara. 1998. "When is a cat not a cat?". *Admap*. October. pp 40-42
- Gatignon, Hubert and Robertson, Thomas S. 1985. "A Propositional Inventory for New Diffusion Research". *Journal of Consumer Research*. Vol. 11. March.
- Geertz, C. 1973. "The Interpretation of Cultures". Basic Books, HarperCollins
- Ger, Güliz and Belk, Russell W. 1996. "Cross-cultural differences in materialism". *Journal of Economic Psychology*. Vol. 17. pp 55-77
- GfK. 1991. "TV advertising in Europe - Lessons learned from more than 3,000 TV-Spot tests", in "The contribution of advertising testing to the development of effective international advertising" GfK Nuremberg. pp. 9-17
- Giddens, Anthony. 1991. "Introduction to Sociology". W.W. Norton Company. New York, London
- Gijsbrechts, Els; Swinnen, Gilbert and Waterschoot, Walter. 1995. "The changing consumer in Belgium". *International Journal of Research in Marketing*. Vol 12. pp 389-403
- Goldsmith, Ronald E; d'Hauteville, François and Flynn, Leisa R. 1998. "Theory and measurement of consumer innovativeness. A transnational evaluation." *European Journal of Marketing*. Vol. 32. No. 3/4. pp 340-353

- Goodyear, Mary. 1991. "Understanding culture in international marketing." ESOMAR conference on international marketing research. Ljubljana, February 14-16. pp. 13-32
- Graham, John L.; Kamins, Michael A. and Oetomo, Djoko S. 1993. "Content Analysis of German and Japanese Advertising in Print Media from Indonesia, Spain, and the United States". *Journal of Advertising* Vol. 22, No. 2. pp 5-15
- Green, Robert T., Cunningham, William H. and Cunningham, Isabella, C.M. 1975. "The effectiveness of standardized global advertising". *Journal of Advertising*. Vol. 4. No. 3. pp 25-30
- Green, Robert T. and Langeard, Eric. 1975. "A cross-national comparison of consumer habits and innovator characteristics. what makes French and US consumers different?" *Journal of Marketing*. Vol. 39. July. pp 34-41
- Grein, Andreas and Ducoffe, Robert. 1998. "Strategic responses to market globalization among advertising agencies". *International Journal of Advertising*. Vol 17. No. 3. pp 301-319
- Grunert, Klaus G., Grunert, Susanne C., and Beatty, Sharon E. 1989. "Cross-cultural research on consumer values." *Marketing and Research Today*. February. pp 30-38
- Grunert, Klaus G; Grunert, Suzanne C; Glatzer, Wolfgang and Imkamp, Heiner. 1995. "The changing consumer in Germany". *International Journal of Research in Marketing*. Vol. 12. pp 417-433
- Grunert, Suzanne C. and Juhl, Hans Jørn. 1995. "Values, environmental attitudes, and buying of organic foods." *Journal of Economic Psychology*. Vol. 16. pp 39-62
- Grunert, Suzanne C. and Muller, Thomas E. 1996. "Measuring values in international settings: are respondents thinking "real" life or "ideal" life? In: Manrai, Lalita A. and Manrai, Ajay K. eds 1996. "Global perspectives in cross-cultural and cross-national consumer research". International Business Press/The Haworth Press. New York, London
- Grunert, Klaus G; Brunsø, Karen, and Bisp, Søren. 1997. "Food-Related Lifestyle: Development of a Cross-Culturally Valid Instrument for Market Surveillance". In: Kahle, Lynn R. and Chiagouris, Larry. Eds. "Values, Lifestyles, and Psychographics". Lawrence Erlbaum Associates, Publishers. New Jersey
- Gudykunst, W.B. and Ting-Toomey, S, 1988, "Culture and Interpersonal Communication", Sage Publications, p. 52
- Gudykunst, William B. 1997. "Cultural viability in communication." *Communication Research*. Vol. 24. No. 4. August. pp 327-348
- Gustafsson, Karl Erik and Weibull, Lennart. 1997. "European newspaper readership: Structure and development". *The European Journal of Communication Research*. Vol. 22. No. 3. pp 249-273
- Hafstrom, Jeanne L; Jung Sook Chae and Young Sook Chung. 1992. "Consumer decision-making styles: Comparison between United States and Korean young consumers. *The Journal of Consumer Affairs*. Vol. 26. No. 1 pp 146-158
- Hagerty, Michael R. 1999. "Unifying livability and comparison theory: Cross-national time-series analysis of life-satisfaction". *Social Indicators Research*. Vol. 47. pp 343-356
- Hall, E.T. 1966, 1969. "The Hidden Dimension" Doubleday & Company. New York.
- Hall, E. 1976. "Beyond Culture" Doubleday, New York
- Hall, E.T. 1984. "The Dance of Life". Anchor Books, Doubleday p 85-128
- Hamel, G and Prahalad, C.K. 1985. "Do you really have a global strategy?" *Harvard Business Review*. July/August. pp 139-148
- Harris, Philip R. and Moran, Robert T. 1987. "Managing cultural differences". Gulf Publishing Company.
- Harvey, Michael G. 1993. "Point of view: A model to determine standardization of the advertising process in international markets". *Journal of Advertising Research*. July/August. pp 57-64
- Head, D. 1987. "Advertising slogans and the "made in" concept." *International Journal of Advertising*. July. pp 237-252
- Heide, Morten and Grønhaug, Kjell. 1988. "The impact of response styles in surveys: A simulation study". *Journal of the Market Research Society*. Vol. 31. No.3 pp 215-230

- Helmreich, R.L., Merrit, A.C. and Sherman, P.J. Human Factors and National Culture. 1996. ICAO Journal, 51 (8), p14-16; Merrit, A.C. and Helmreich, R.L. 1996. Culture in the Cockpit: A Multi-airline Study of Pilot Attitudes and Values. In: Proceedings of the eighth International Symposium on Aviation Psychology. Columbus Ohio State University.
- Helsen, Kristiaan; Jedidi, Kamel and DeSarbo, Wayne S. 1993. "A new approach to country segmentation utilizing multinational diffusion patterns." Journal of Marketing. Vol. 57. October. pp 60-71
- Hempel, Donald J. 1974. "Family buying decisions: A cross-cultural perspective." Journal of Marketing Research. Vol. 11. August. pp 295-302
- Henry, Walter A. 1976. "Cultural values do correlate with consumer behavior". Journal of Marketing Research. May. Vol. XIII. pp 121-127
- Herbig, Paul H. 1998. "Handbook of Cross-Cultural Marketing". The International Business Press. New York, London
- Heyder, H., Musiol, K.G. and Peters, K. 1992. "Advertising in Europe - Attitudes towards advertising in certain key East and West European countries". Marketing and Research Today, March
- Hill, John S. and Still, Richard R. 1984. "Adapting products to LDC tastes." Harvard Business Review. March-April. pp 92-101
- Hite, Robert E. and Fraser, Cynthia. 1988. "International advertising strategies of multinational corporations". Journal of Advertising Research. August-September. pp 9-17
- Hofstede, Geert 1980. "Culture's Consequences", Sage Publications
- Hofstede, Geert. 1984. "The cultural relativity of the quality of life concept" Academy of Management Review. Vol. 9, No. 3. pp 389-398
- Hofstede, Geert and Bond, Michael Harris. 1988. "The Confucius Connection: From Cultural Roots To Economic Growth." Organizational Dynamics. AMA
- Hofstede, Geert 1991. "Cultures and Organizations, Software of the Mind", McGraw-Hill
- Hofstede, Geert, and Associates. 1998. "Masculinity and Femininity, The taboo dimension of national cultures". Sage Publications
- Hofstede, Geert. 2001. "Culture's Consequences" 2nd edition. Sage Publications
- Hofstede, Frenkel ter; Steenkamp, Jan-Benedict E.M. and Wedel, Michel. 1999. "International market segmentation based on consumer-product relations." Journal of Marketing Research. Vol. 36. February. pp 1-17
- Holden, Nigel. 1998. "Viewpoint: International marketing studies - time to break the English language strangle-hold?" International marketing Review. Vol 15. No 2. pp 86-100
- Höllinger, Franz and Haller, Max. 1996. "Kinship and social networks in modern societies: A cross-cultural comparison among seven nations." In: Inkeles, Alex and Sasaki, Masamichi. 1996. "Comparing nations and cultures". Prentice Hall, Englewood Cliffs
- Holman, Rebecca H. 1984. "A Values and Lifestyles perspective on Human Behavior". In: Robert E. Pitts, Jr. and Arch G. Woodside: "Personal Values and Consumer Psychology". 1984. Lexington Books, D.C. Heath and Company, Lexington, Massachusetts. pp 35-54
- Homma, Norbert. 1991. "The continued relevance of cultural diversity." Marketing and Research Today. November. pp 251-259
- Hoppe, M. 1998. "Validating the masculinity/femininity dimension on elites from 19 countries". In: Hofstede, G. 1998. "Masculinity and Femininity. The Taboo Dimension of National Cultures", Sage Publications, USA
- Hout, Thomas; Porter, Michael E., and Rudden, Eileen. 1982. "How global companies win out". Harvard Business Review. September-October. pp 98-108
- Huang, Ming-Hui. 1998. "Exploring a new typology of advertising appeals: Basic, versus social, emotional advertising in a global setting". International Journal of Advertising. Vol. 17. No. 2. pp 145-168
- Huhn, Mary. 1988. "Learning advertising Esperanto". Adweek. June 6. pp G11-G14
- Hui, C. Harry. 1988. "Measurement of Individualism-Collectivism". Journal of Research in Personality. Vol 22. pp 17-36

- Hunt, Shelby D. 1976. "The Nature and Scope of Marketing". *Journal of Marketing*. Vol. 40. July. pp 17-28
- Huntington, S.P. 1996a. "The Clash of Civilizations and the Remaking of World Order". Simon & Schuster
- Huntington, Samuel P. 1996b. "The goals of development." In: Inkeles, Alex and Sasaki, Masamichi. 1996. "Comparing nations and cultures". Prentice Hall, Englewood Cliffs
- Inglehart, Ronald 1990. "Culture shift in advanced industrial society". Princeton, NJ: Princeton University Press
- Inglehart, Ronald. 1996. "Postmaterialism in an environment of insecurity." In: Inkeles, Alex and Sasaki, Masamichi. 1996. "Comparing nations and cultures". Prentice Hall, Englewood Cliffs
- Inglehart, Ronald. 1997. "Modernization and Postmodernization. Cultural, economic, and political change in 43 societies." Princeton University Press, Princeton, New Jersey
- Inglehart, Ronald; Basañez, Miguel and Moreno, Alejandro. 1998. "Human values and beliefs: A cross-cultural sourcebook". The University of Michigan Press. Ann Arbor
- Inkeles, Alex. 1996. "Making men modern: On the causes and consequences of individual change in six developing countries." In: Inkeles, Alex and Sasaki, Masamichi. 1996. "Comparing nations and cultures". Prentice Hall, Englewood Cliffs
- Inkeles, Alex and Sasaki, Masamichi. 1996. "Comparing nations and cultures". Prentice Hall, Englewood Cliffs
- Inkeles, Alex. 1998. "One World Emerging?: Convergence and Divergence in Industrial Societies". Westview Press Inc, Boulder.
- Jain, Subhash C. 1987. "International Marketing Management". 2nd edition. PWS-Kent Publishing Company, Boston
- Jain, Subhash C. 1989. "Standardization of international marketing strategy: Some research hypotheses". *Journal of Marketing*. Vol. 53. January. pp 70-79
- James, W.L. and Hill, J.S. 1991. "International advertising messages: To adapt or not to adapt (that is the question)". *Journal of Advertising Research*. June/July 1991
- Jones, J.P. 2000. "Introduction, The Vicissitudes of International Advertising". In: John Philip Jones Ed. "International Advertising, Realities and Myths". Sage Publications, Inc
- Kahle, L.R. and Goff Timmer, S. 1983. "A theory and method for studying values and social change: Adaptation to life in America". New York: Praeger
- Kahle, Lynn R. and Chiagouris, Larry (Eds). 1997. "Values, Lifestyles, and Psychographics". Lawrence Erlbaum Associates, Publishers. Mahwah, New Jersey
- Kamakura, Wagner A. and Mazzon, José Alfonso. 1991. "Value segmentation: A model for the measurement of values and value systems." *Journal of Consumer Research*. Vol. 18. September. pp 208-218
- Kanso, Ali. 1992. "International advertising strategies: Global commitment to local vision". *Journal of Advertising Research*. January/February. pp 10-14
- Kapferer, Jean-Noël. 1993. "The challenge of European branding: Facing inter-country differences." *Journal of Brand Management*. Vol. 1. No. 1
- Kashani, Kamran. 1989. "Beware the pitfalls of global marketing". *Harvard Business Review*. September-October
- Kashima, Emiko S. and Kashima, Yoshihisa. 1998. "Culture and language. The case of cultural dimensions and personal pronoun use". *Journal of Cross-Cultural Psychology*. Vol. 29. No. 3. May. pp 461-486
- Katz, H. and Lee, W-N. 1992. "Oceans apart: An initial exploration of social communication differences in US and UK prime-time television advertising". *International Journal of Advertising*. 11 . 69-82
- Kaynak, Erdener. 1985. "Globalization in international markets." In: Erdener Kaynak ed. "Global perspectives in marketing". Praeger, New York. pp 5-22
- Keegan, Warren J. 1989. "Global Marketing Management" 4th edition. Prentice Hall, Englewood Cliffs
- Keegan, Warren; Moriarty, Sandra and Duncan, Tom. 1992. "Marketing". Prentice Hall, Englewood Cliffs

- Keen, Karen and Hellebosch, Lucienne. 1990. "Pan-European advertising. MRS 1990 Conference papers. pp 193-199
- Keillor, Bruce D. and Hult, G. Thomas. 1999. "A five-country study of national identity. Implications for international research and practice". *International Marketing Review*. Vol. 16. No. 1. pp 65-82
- Killough, James. 1978. "Improved pay-offs from transnational advertising". *Harvard Business Review*. July-August. pp 102-110
- Kim, Uichol; Triandis, Harry C; Kagitçibasi, Çigdem; Choi, Sang-Chin and Yoon, Gene. 1994. "Individualism and Collectivism". Sage Publications
- Kitchen, Philip J. and Wheeler, Colin. 1997. "Issues influencing marcoms in a global context." *Journal of Marketing Communications*. No. 4, December 1997. pp 243-259
- Gluckhohn, C, 1952, "Values and value orientations in the theory of action." In T. Parsons & E.A. Shils (Eds), "Toward a general theory of action". Harvard University Press.
- Gluckhohn, Florence and Strodtbeck, Fred (1961) "Variations in Value Orientations". Evanston: Row, Peterson, Evanston, Ill.
- Kohn, Melvin L. 1996. "Cross-national research as an analytic strategy" American Sociological Association, 1987 presidential address. In: Inkeles, Alex and Sasaki, Masamichi. 1996. "Comparing nations and cultures". Prentice Hall, Englewood Cliffs
- Kotler, Philip. 1986. "Global standardization - courting danger". *The Journal of Consumer Marketing*. Vol.3. No.2. Spring Issue. pp 13-15
- Kotler, Philip. 1994. "Marketing Management". PrenticeHall, Inc., Englewood Cliffs, New Jersey
- Kouremenos, Athanassios and Avlonitis, George J. 1995. "The changing consumer in Greece." *International Journal of Research in Marketing*. Vol. 12. pp 435-448
- Krech, David and Crutchfield, Richard S. 1974. "Perceiving the world". In: Schramm, Wilbur and Roberts, Donald F. 1974. "The process and effects of mass communication". University of Illinois Press
- Krotz, Friedrich and Hasebrink, Uwe. 1998. "The analysis of people-meter data: Individual patterns of viewing behavior and viewers' cultural backgrounds". *The European Journal of Communication Research*. Vol. 23. No. 2. pp 151-174
- Kunii, Irene. 1999. "The company that got Japan to log on". *Business Week*. July 12. p 40-41
- Kumar, V.; Ganesh, Jaishankar, and Echambadi, Raj. 1998. "Cross-National Diffusion Research: What Do We Know and How Certain Are We?". *The journal of innovation management*. Vol. 15. pp 255-268
- Laaksonen, Pirjo; Laaksonen, Martti and Möller, Kristian. 1998. "The changing consumer in Finland". *International Journal of Research in Marketing*. Vol. 15, No. 2. pp 169-180
- Lambkin, Mary and Day, George S. "Evolutionary Processes in Competitive Markets: Beyond the Product Life Cycle". *Journal of Marketing*. Vol. 53. July. pp 4-20
- Lambkin, Mary and Bradley, Frank. 1995. "The changing consumer in Ireland". *International Journal of Research in Marketing*. Vol. 12. pp 449-466
- Lascu, Dana-Nicoleta; Manrai, Lalita A. and Manrai, Ajay K. 1996. "Value differences between Polish and Romanian consumers: A caution against using a regiocentric marketing orientation in Eastern Europe." In: Manrai, Lalita A. and Manrai, Ajay K. eds 1996. "Global perspectives in cross-cultural and cross-national consumer research". International Business Press/The Haworth Press. New York, London
- Laskey, Henry A; Fox, Richard J. and Crask, Melvin R. 1994. "Investigating the impact of executional style on television commercial effectiveness." *Journal of Advertising Research*. November/December. pp 9-16
- Leclerc, France; Schmitt, Bernd H. and Dubé, Laurette. 1994. "Foreign branding and its effects on product perceptions and attitudes." *Journal of Marketing Research*. Vol. 31. No. 2. pp 263-270
- Lee, James. A. 1966. "Cultural analysis in overseas operations". *Harvard Business Review*. March-April. pp 106-114
- Leeftang, Peter S.H. and van Raaij, W. Fred. 1993. "The changing consumer in the Netherlands. Recent changes in environmental variables and their consequences for future consumption and marketing". *International Journal of Research in Marketing*. Vol. 10.

- Leeflang, Peter S.H. and van Raaij, W. Fred. 1995. "The changing consumer in the European Union: A "meta-analysis"". *International Journal of Research in Marketing*. Vol. 12 pp 373-387
- Leiss, William; Kline, Stephen and Jhally, Sut. 1990. "Social Communication in Advertising: persons, products and images of well-being". 2nd ed. Ontario: Nelson Canada
- Leo, Norton B. 1964. "Creative strategy for international advertising" in Dunn, S.W. (Ed.) *International Handbook of Advertising*. McGraw Hill, New York, NY. pp 181-182
- Lester, Tom. 1987. "The issue globalists don't talk about". *International Management*. September. pp 39-42
- Levitt, Theodore. 1983. "The globalization of markets". *Harvard Business Review*. May-June. pp 2-11
- Lin, C.A. 1993. "Cultural differences in message strategies: A comparison between American and Japanese TV commercials". *Journal of Advertising Research*. July/August pp 40-47
- Lindberg, Bertil C. 1982. "International comparison of growth in demand for a new durable consumer product". *Journal of Marketing Research*. Vol. 19. August. pp 364-371
- Lorimer, E.S. and Dunn, S. Watson. 1968. "Reference groups, congruity theory and cross-cultural persuasion." *The Journal of Communication*. Vol. 18 December. pp 354-368
- Lowe, Anthony Chun-Tung and Corkindale, David R. 1998. "Differences in "cultural values" and their effects on responses to marketing stimuli. A cross-cultural study between Australians and Chinese from the People's Republic of China." *European Journal of Marketing*. Vol. 32. No. 9/10 pp 843-867
- Luqmani, Mushtaq; Yavas, Ugur and Quraeshi, Zahir A. 1994. "A convenience-oriented approach to country segmentation." *Journal of Consumer Marketing*. Vol. 11. No. 4. pp 29-40
- Lynn, Michael and Gelb, Betsy D. 1996. "Identifying innovative national markets for technical consumer goods." *International Marketing Review*. Vol. 13. No. 6. pp 43-57
- Lysonski, Steven; Durvasula, Srini and Zotos, Yiorgos. 1996. "Consumer decision-making styles: A multi-country investigation". *European Journal of Marketing*. Vol. 30. No. 12. pp 10-21
- Macfarlane, A. 1978. "The Origins of English Individualism". Blackwell Publishers, UK
- Magrabi, Frances M; Chung, Young Sook; Cha, Sanghee Sohn and Yang, Se-Jeong. 1991. "The economics of household consumption". Preager, New York. pp 210-234, 245-248
- Maleville, M. 1993. "How boringly respectable can you get? A study of business slogans in three countries". *Toegepaste Taalwetenschap*. 2,3.
- Malhotra, Naresh K; Agarwal, James, and Baalbaki, Imad. 1998. "Heterogeneity of regional trading blocks and global marketing strategies. A multicultural perspective". *International Marketing Review*. Vol. 15. No. 6. pp476-506
- Manrai, Lalita A. and Manrai, Ajay K. 1996. "Current issues in cross-cultural and cross-national consumer research." In: Manrai, Lalita A. and Manrai, Ajay K. eds 1996. "Global perspectives in cross-cultural and cross-national consumer research". International Business Press/The Haworth Press. New York, London
- Markus, Hazel; Kitayama, Shinobu and VandenBos, Gary R. 1996. "The mutual interactions of culture and emotion." *Psychology Update. Psychiatric Services*. March. Vol. 47. No. 3. pp 225-226
- Marshall, Roger and Gitosudarmo, Indriyo. 1995. "Variation in the characteristics of opinion leaders across cultural borders." *Journal of International Consumer Marketing*. Vol. 8 No. 1. pp 5-22
- Maslow, A.H. 1954. "Motivation and Personality". Harper & Row
- McCain, Thomas. 1986. "Patterns of media use in Europe: Identifying country clusters". *European Journal of Communication*. Vol. 1 No. 2. June. pp 231-250
- McCann-Erickson. The Insider's Report by Robert J. Coen. June 1997. McCann-Erickson. 750 Third Avenue. New York. Internet: www.McCann.com
- McClelland, David C. 1989. "Human Motivation" Cambridge University Press. Cambridge, New York.
- McCollum Spielman Worldwide, MSW journal Topline. Number 37, 1992

- McCracken, Grant. 1989. "Culture and consumer behaviour: An anthropological perspective." *Journal of the Market Research Society*. Vol 32. No. 1. pp 3-11
- McDonald, William J. 1995. "American versus Japanese consumer decision making: an exploratory cross-cultural content analysis." *Journal of International Consumer Marketing*. Vol. 7 No. 3 pp 81-93
- McGarry, E.D. 1936. "The importance of scientific method in advertising". *Journal of Marketing*. July. Vol 1 No 1. pp 82-86
- McLauchlin, James E. 1993. "Communicating to a diverse Europe." *Business Horizons*. January-February. pp 54-56
- McLuhan, Marshall. 1964. "Understanding Media: The Extensions of Man". McGraw Hill
- Medina, José F; Beatty, Sharon E. and Saegert, Joel. 1996. "Consumer acquisition patterns in an industrialized country: A study of global convergence of demand." *Journal of Global Marketing*. Vol. 10. No. 2. pp 5-25
- Meffert, Heribert and Bolz, Joachim. 1995. "Erfolgswirkungen der internationalen Marketing-standardisierung". (The effects of international marketing standardization). *Marketing . ZFP*. Heft 2. II Quartal. pp 99-109
- Melewar, T.C. and Saunders, John. 1998. "Global corporate visual identity systems. Standardization, control and benefits". *International Marketing Review*. Vol. 15. No. 4. pp291-308
- Mesdag, Martin van. 2000. "Culture-sensitive adaptation of global standardization - the duration-of-usage hypothesis". *International Marketing Review*. Vol. 17. No. 1. pp 74-84
- Mesquita, Batja and Frijda, Nico H. 1992. "Cultural Variations in Emotions: A Review". *Psychological Bulletin*. Vol. 112. No. 2. pp 179-204
- Milner, Laura M; Fodness, Dale and Speece, Mark W. 1993. "Hofstede's research on cross-cultural work-related values: Implications for consumer behavior." *European Advances in Consumer Research*. Vol. 1. pp 70-76
- Milner, Laura M. and Collins, James M. 2000. "Sex-Role Portrayals and the Gender of Nations". *The Journal of Advertising*. Vol 29. No. 1. Spring. pp 67-79.
- Miracle, G.E. 1966. "Management of international advertising". *Michigan International Business Studies*. No. 5. The University of Michigan.
- Miracle, G.E. 1968. "International advertising principles and strategies" *MSU Business Topics*. Autumn. pp 29-36
- Miracle, G.E. 1982. "Applying cross-cultural research findings to advertising practice and research". *Proceedings of the 1982 Conference of the American Academy of Advertising*, Fletcher, A.D., ed.
- Miracle, G.E. 1987. "Feel-Do-Learn: An Alternative Sequence Underlying Japanese Consumer response To Television Commercials". *The Proceedings of the 1987 Conference of the American Academy of Advertising*. Feasley, F.G. Editor
- Miracle, G.E; Taylor, C.R., and Chang, K.Y. 1992. "Culture and advertising executions: A comparison of selected characteristics of Japanese and U.S. television commercials". *Journal of International Consumer Marketing*. Vol. 4. No. 4. pp 89-113
- M&M Europe: Published data on TV viewing and press readership worldwide, various years.
- Mooij, M. de. 1994. "Advertising Worldwide", 2nd ed. Prentice Hall International, p 131-132
- Mooij, M. de. 1997. "Mapping cultural values for global marketing and advertising" *ESOMAR 50th Congress*, Edinburgh
- Mooij, M. de. 1998a. "Global marketing and advertising, understanding cultural paradoxes". Sage Publications, USA
- Mooij, M. de. 1998b. "Wereldmerken, hoe reclame omgaat met cultuurverschillen" (Global brands, how advertising handles cultural differences). Adfo Specialists Group, Samsom, the Netherlands.
- Mooij, M. de. 1998c. "Masculinity/Femininity and consumer behavior." In: Hofstede, Geert, and Associates. "Masculinity and Femininity, The taboo dimension of national cultures". Sage Publications
- Mooij, M. de. 1999. "Mapping cultural values for global marketing and advertising". In:

- "International Marketing Research". Ed. Mary Goodyear. ESOMAR Monograph No. 8
- Mooij, M. de. 2000a. "Mapping cultural values for global marketing and advertising". In: "International Advertising, Realities and Myths". John Philip Jones Ed. Sage Publications, Inc
- Mooij, M. de. 2000b. "The future is predictable for international marketers: Converging incomes lead to diverging consumer behaviour". *International Marketing Review*. Vol. 17. No. 2. pp. 103-113
- Moore, Jonathan and Einhorn, Bruce. 1999. "A Biz-to-Biz E-Boom" *Business Week*, October 25. pp 30-31
- Morello, Gabriele and Boerema, Elzo. 1989. "'Made in' and communication" ESOMAR Annual Congress, September
- Moriarty, S.E. and Duncan, T.R. 1990. "Global advertising: Issues and practices". *Current Issues and Research in Advertising*. Vol. 13, nos 1, 2. James H. Leigh and Claude R. Martin Jr (eds). Division of Research, School of Business Administration, The University of Michigan
- Moriarty, Sandra E. 1991. "Creative Advertising, Theory and Practice". Prentice-Hall, Inc. Englewood Cliffs
- Mueller, B. 1987. "Reflections of culture: An analysis of Japanese and American advertising appeals". *Journal of Advertising Research*. June/July. pp 51-59
- Mueller, B. 1992. "Standardization vs. specialization: an examination of westernization in Japanese advertising" *Journal of Advertising Research*. January/February. pp 15-24
- Mühlbacher, Hans; Botschen, Martina and Beutelneyer, Werner. 1997. "The changing consumer in Austria". *International Journal of Research in Marketing*. Vol 14. pp 309-319
- Mühlbacher, Hans; Dahringer, Lee, and Leihs, Helmuth. 1999. "International Marketing. A Global Perspective". 2nd edition. International Thomson Business Press. London.
- Müller, Wendeling. 1998. "Verlust von Werbewirkung durch Standardisierung". (Loss of advertising effectiveness through standardization) *Absatzwirtschaft* Vol. 9. pp 80-88
- Müller-Peters, Anke. 1998. "The significance of national pride and national identity to the attitude toward the single European currency: A Europe-wide comparison". *Journal of Economic Psychology*. Vol. 19, No. 6. pp 702-719
- Mundorf, Norbert; Dholakia, Ruby Roy; Dholakia, Nikhilesh and Westin, Stuart. 1996. "German and American consumer orientations to information technologies: Implications for marketing and public policies." In: Manrai, Lalita A. and Manrai, Ajay K. eds 1996. "Global perspectives in cross-cultural and cross-national consumer research". International Business Press/The Haworth Press. New York, London
- Munson, J. Michael and McIntyre, Shelbu H. 1978. "Personal values: A cross cultural assessment of self values and values attributed to a distant cultural stereotype". *Advances in Consumer Research*. Vol. V. Hunt, H. Keith. Ed. Ann Arbor. pp 160-166
- Nakata, Cheryl and Sivakumar, K. 1996. "National culture and new product development: an integrative review". *Journal of Marketing*. Vol. 60. January. pp 61-72.
- Neff, Jack. 1999. "Diversity as a selling point scores for marketers". *Advertising Age*. February 15. p s2
- Nevett, T. 1992. "Differences between American and British television advertising: Explanations and implications". *Journal of Advertising*. Vol. 22, No. 4, December
- Nilsson, Ole and Solgaard, Hans Stubbe. 1995. "The changing consumer in Denmark." *International Journal of Research in Marketing*. Vol 12. pp 405-416
- Norusis, Marija J. 1990. "SPSS Introductory Statistics Student Guide". SPSS Inc. Chicago. Il.
- Nueno, José Luis and Bennett, Harvey. 1997. "The changing Spanish consumer." *International Journal of Research in Marketing*. Vol 14. pp19-33
- OECD Economic Surveys, various years. OECD Publications Service. Paris
- OECD in Figures. 1996. OECD Publications Service. Paris
- Ohmae, Kenichi. 1989. "Managing in a borderless world". *Harvard Business Review*. May/June. pp 152-161
- Otten, Remmelt. 2000. "Ervaren surfer gaat duiken" (Experienced surfer dives). *NRC Handelsblad*. November 29, 2000

- Oude Weernink, Wim. 2000. "Het familiegevoel van Toyota" (Toyota's family feeling). NRC Handelsblad. November 9. p. 16
- Oyewole, Philemon. 1998. "Country segmentation of the international market using ICP-based consumption patterns." *Journal of Global Marketing*. Vol. 11. No. 4. pp 75-94
- Paliwoda, Stanley J. 1999. "Viewpoint: International marketing: An assessment". *International Marketing Review*. Vol. 16. No. 1. pp 8-17
- Papavassiliou, Nikolaos and Stathakopoulos, Vlas. 1997. "Standardization versus adaptation of international advertising strategies: Towards a framework." *European Journal of Marketing*. Vol. 31. No. 7. pp 504-527
- Parker, P.M. 1997. "National Cultures of the World". Greenwood Press. Westport, Connecticut
- Pasquier, Dominique; Buzzi, Carlo; d'Haenens, Leen and Sjöberg, Ulrika. 1998. "Family lifestyles and media use patterns. An analysis of domestic media among Flemish, French, Italian and Swedish children and teenagers". *European Journal of Communication*. Vol. 13. No. 4. pp 503-519
- Peebles, Dean M., Ryans, John K. Jr. and Vernon, Ivan R. 1978. "Coordinating international advertising; A programmed management approach that cuts through the 'standardized vs. localized' debate". *Journal of Marketing*. January 1978. pp 28-34
- Pepermans, Roland and Verleye, Gino. 1998. "A unified Europe? How Euro-attitudes relate to psychological differences between countries". *Journal of Economic Psychology*. Vol. 19 No. 6. pp 681-699
- Perkin, Harold. 1999. "Review: One world emerging? Convergence and Divergence in Industrial Societies. By Alex Inkeles." *Journal of Social History*. Vol. 33, No. 2. pp 461-462
- Peterson, Mark and Malhotra, Naresh. 2000. "Country segmentation based on objective quality-of-life measures". *International Marketing Review*. Vol. 17. No 1. Pp 56-73
- Pollay, Richard W. 1984. "The identification and distribution of values manifest in print advertising 1900-1980." In: Robert E. Pitts, Jr. and Arch G. Woodside: "Personal Values and Consumer Psychology". 1984. Lexington Books, D.C. Heath and Company, Lexington, Massachusetts. pp 111-135
- Pollay, Richard W. and Gallagher, Katherine. 1990. "Advertising and cultural values: Reflections in the distorted mirror." *International journal of advertising*. No. 9. pp 359-372
- Porter, M.E. 1986a. "The strategic role of international marketing". *Journal of Consumer Marketing*. Vol. 3 No. 2. pp 17-21
- Porter, M.E. 1986b: "Competition in Global Industries", Harvard Business School Press, Boston, Mass
- Przeworski, A and Teune, H. 1970. "The logic of comparative social inquiry". Wiley-Interscience. New York
- Quelch, John A. and Hoff, Edward J. 1986. "Customizing global marketing". *Harvard Business Review*. May-June. pp 59-68
- Quelch, John A. and Buzzell, Robert D. 1989. "Marketing moves through EC crossroads." *Sloan Management Review*. Fall. pp 63-74
- Raaij, W. Fred van. 1978. "Cross-cultural research methodology as a case of construct validity". *Advances in Consumer Research*. Vol. V. Hunt, Keith. Ed. Ann Arbor. pp 693-701
- Raaij, W. Fred van. 1998. "Micro and macro economic psychology." In: Lambkin, M. et al. Eds: "European Perspectives on Consumer Behaviour". Prentice Hall Europe.
- Rajaratnam, Daniel; Hunt, James B. and Madden, Charles S. 1995. "Content analysis of U.S. and Indian magazine advertising." *Journal of International Consumer Marketing*. Vol. 8 No. 1 pp 93-109
- Ramaprasad J and Hasegawa. 1992. K "Creative strategies in American and Japanese TV commercials: A comparison". *Journal of Advertising Research*. January/February. pp 59-67
- Reader's Digest .1970. A Survey of Europe Today". Published by the Reader's Digest Association Limited, Berkeley Square, London W1X 6AB, United Kingdom.
- Reader's Digest 1991. "Eurodata - A consumer Survey of 17 European Countries", sponsored by the Reader's Digest Association Inc. Published by the Reader's Digest Association Limited, Berkeley Square, London W1X 6AB, United Kingdom.

- Reichel, Jurgen. 1989. "How can marketing be successfully standardized for the European market?" *European Journal of Marketing*. Vol. 23 no. 7. pp 60-66
- Resnik, A and Stern, B.L. 1977. "An Analysis of Information Content in Television Advertising". *Journal of Marketing*. Vol 41. No. 1. pp 50-53
- Rice, C. 1993. "Consumer Behaviour". Butterworth-Heinemann Ltd. Oxford.
- Robinson, C. 1996. "Asian culture: The marketing consequences". *Journal of the Market Research Society*, Vol 38 No 1 January
- Rogers, E.M. 1962. *Diffusion of Innovations*. New York. The Free Press
- Rogers, Everett M. and Chaffee, Steven H. 1993. "The past and the future of communication study: Convergence or divergence?" *Journal of Communication*. Vol. 43. No. 4. Autumn. pp 125-131
- Rogers, Everett M. 1995. "Diffusion of innovations" fifth edition. New York. The Free Press
- Rokeach, M. 1973. "The nature of human values". New York. Free Press
- Roland, A. 1988. "In search of self in India and Japan". Princeton University Press. p 302
- Roostal, Ilmar. 1963. "Standardization of advertising for Western Europe". *Journal of Marketing*. October. pp 15-20
- Ros, Maria; Schwartz, Shalom H and Surkiss, Shoshana. 1999. "Basic individual values, work values, and the meaning of work". *Applied psychology: An international review*. Vol 48. no. 1. pp 49-71
- Rose, Gregory M. 1997. "Cross-Cultural Values Research: Implications for International Advertising". In: Kahle, Lynn R. and Chiagouris, Larry. Eds. "Values, Lifestyles, and Psychographics". Lawrence Erlbaum Associates, Publishers. New Jersey
- Rossant, John. 2000. "A common identity for Europe? You better believe it". *Business Week*, November 20. p 72
- Roth, Martin S. 1995. "The effects of culture and socioeconomics on the performance of global brand image strategies." *Journal of Marketing Research*. Vol. 32. May. pp 163-175
- Rotter, Julian B and Mulry, Ray. 1965. "Internal versus External Control of Reinforcement and Decision Time". *Journal of Personality and Social Psychology*. Vol. 2, No. 4. pp 598-604
- Rotter, Julian B. 1975. "Some Problems and Misconceptions Related to the Construct of Internal Versus External Control of Reinforcement". *Journal of Consulting and Clinical Psychology*. Vol. 43, No. 1. pp 56-67
- Rotter, Julian B. 1990. "Internal Versus External Control of Reinforcement". *American Psychologist*. Vol. 45, No. 4. pp 489-493
- Ryans, John K. Jr. and Donnelley, James H. Jr. 1969. "Standardized global advertising, a call as yet unanswered". *Journal of Marketing*. April. pp 57-60
- Samiee, Saeed and Roth, Kendall. 1992. "The influence of global marketing standardization on performance." *Journal of Marketing*. Vol. 56. April. pp 1-17
- Samli, A. Coskun. 1995. "International Consumer Behavior". Quorum Books. Westport, Connecticut and London
- Samuelson, Robert J. 1999. "Ambition and its enemies". *Newsweek*. August 30. Page 4.
- Sarkar, Prabirjit. 1999. "Theory of convergence and real income divergence 1950-1992." *Economic and Political Weekly*. A Sameeksha Trust publication, Bombay. February 20
- Saunders, John and Saker, Jim. 1994. "The changing consumer in the UK". *International Journal of Research in Marketing*. Vol. 11. pp 477-489
- Savitt, Ronald. 1998. "Viewpoint: This thing I call Europe". *International Marketing Review*. Vol. 15. No. 6 pp 444-446
- Scheuch, Erwin K. 1996. "Theoretical implications of comparative survey research: Why the wheel of cross-cultural methodology keeps on being reinvented." In: Inkeles, Alex and Sasaki, Masamichi. 1996. "Comparing nations and cultures". Prentice Hall, Englewood Cliffs
- Schlegelmilch, Bodo. B and Sinkovics, Rudolf. 1998. "Viewpoint: Marketing in the information age- can we plan for an unpredictable future?" *International Marketing Review*. Vol. 15 No. 3. pp 162-170
- Schmitt, Bernd H. and Pan, Yigang. 1994. "Managing corporate and brand identities in the Asia-Pacific region." *California Management Review*. Vol. 36. No. 4. pp 32-48

- Schooler, R.D. 1965. "Product bias in the Central American common market." *Journal of marketing Research*. November
- Schramm, Wilbur and Roberts, Donald F. 1974. "The process and effects of mass communication". University of Illinois Press
- Schwartz, Shalom H. and Bilsky, Wolfgang. 1987. "Toward a universal psychological structure of human values" *Journal of Personality and Social Psychology*. Vol. 53. No. 3. pp 550-562
- Schwartz, Shalom H. and Bilsky, Wolfgang. 1990. "Toward a theory of the universal content and structure of values: Extensions and cross-cultural replications" *Journal of Personality and Social Psychology*. Vol. 58. No. 5. pp 878-891
- Schwartz, Shalom H. 1994. "Beyond Individualism/Collectivism; New cultural dimensions of values." In: Kim, Uichol; Triandis, Harry C; Kâğıtçibasi, Çigdem; Choi, Sang-Chin and Yoon, Gene. 1994. "Individualism and Collectivism". Sage Publications
- Schwartz, Shalom H. 1999. "A theory of cultural values and some implications for work." *Applied Psychology: An international review*. Vol 48. No. 1 pp 23-47
- Scott, L. 1994. *Images in Advertising: The Need for a Theory of Visual Rhetoric*. *Journal of Consumer Research*, Vol 21, September
- Sengupta, S. 1995. "The influence of culture on portrayals of women in television commercials: A comparison between the United States and Japan". *International Journal of Advertising*. 14. p 314-333
- Sethi, S. Prakash. 1971. "Comparative cluster analysis for world markets." *Journal of Marketing Research*. Vol. 8. August. pp 348-354
- Shane, S. 1995. "Uncertainty Avoidance and the Preference for Innovation Championing Roles". *Journal of International Business Studies*. Vol 26. Issue 1. pp 47-68
- Shane S. and Venkataraman, S. 1996. "Renegade and Rational Championing Strategies". *Organizational Studies*. Vol 17/5. pp 751-771
- Sherrell, Daniel L; Hair, Joseph F. Jr. and Bush, Robert P. 1984. "The influence of personal values on measures of advertising effectiveness: Interactions with audience involvement." In: Robert E. Pitts, Jr. and Arch G. Woodside: "Personal Values and Consumer Psychology". 1984. Lexington Books, D.C. Heath and Company, Lexington, Massachusetts. pp 169-185
- Sheth, Jagdish. 1986. "Global markets or global competition?". *Journal of Marketing*. April. pp 9-11
- Sheth, J.N., Newman, B.I. and Gross, B.L. 1991. "Consumption Values and Market Choices". Cincinnati, Ohio: South-Western Publishing Co.
- Shoham, Aviv. 1995. "Global marketing standardization." *Journal of Global marketing*. Vol. 9. No. 1/2. pp 91-119
- Shoham, Aviv. 1996a. "Effectiveness of standardized and adapted television advertising: An international field study approach." *Journal of International Consumer Marketing*. Vol. 9 No. 1 pp 5-23
- Shoham, Aviv. 1996b. "Marketing-mix standardization: Determinants of export performance." *Journal of Global Marketing*. Vol. 10. No. 2. pp 53-73
- Simon-Miller, Francoise. 1986. "World marketing: Going global or acting local?". *The Journal of Consumer Marketing*. Vol. 3 No. 2 Spring pp 5-7
- Sin, Leo Y.M; Cheung, Gordon W.H. and Lee, Ruby. 1999. "Methodology in Cross-Cultural Consumer Research: A Review and Critical Assessment". *Journal of International Consumer Marketing*. Vol. 11, No. 4. pp 75-96
- Smith, Adam. 1998. "Content is king". *Admap*. February. p 13
- Smith, Geri. 1999. "Yahoo!, stay home". *Business Week*. November 22. pp 36-37
- Smith, Peter B. and Bond, Michael Harris. 1993. "Social Psychology Across Cultures". Harvester Whitesheaf, New York
- Smith, Peter B; Dugan, Shaun and Trompenaars, Fons. 1996. "National culture and the values of organizational employees. A dimensional analysis across 43 nations." *Journal of Cross-Cultural Psychology*. Vol. 27 No. 2 March. pp 231-264

- Snyder, Leslie B., Willenborg, Bartjan, and Watt, James. 1991. "Advertising and cross-cultural convergence in Europe, 1953-89". *European Journal of Communication*. Vol. 6. No. 4. December. pp 441-468
- Sociaal Cultureel Planbureau. 2000. *Sociaal en Cultureel Rapport 2000*.
- Solomon, Michael R. 1999. "Consumer Behavior: Buying, Having, and Being". Prentice Hall, Upper Saddle River, New Jersey.
- Søndergaard, Mikael. 1994. "Research note: Hofstede's consequences: A study of reviews, citations and replications." *Organization Studies*. Vol. 15. No. 3. pp 447-456
- Sorenson, Ralph Z. and Wiechmann, Ulrich E. 1975. "How multinationals view marketing standardization". *Harvard Business Review*. May-June. pp 38-54
- Spotts, H; Weinberger, M.G. and Parsons, A. 1995. "Creative strategy and execution in international magazine advertising: A US/UK comparison". *Proceedings of the 1995 Conference of the American Academy of Advertising*. Madden, S. Editor
- Sriram, Ven and Gopalakrishna, Pradeep. 1991. "Can advertising be standardized among similar countries? A cluster based analysis." *International Journal of Advertising*. Vol. 10. pp 137-149
- Starch INRA Hooper and International Advertising Association. 1983, 1989. "World Advertising Expenditures". 17th and 23rd edition. New York.
- Steenkamp, Jan-Benedict E.M.; Hofstede, Frenkel ter, and Wedel, Michel. 1999. "A cross-national investigation into the individual and national cultural antecedents of consumer innovativeness." *Journal of Marketing*. Vol. 63. April. pp 55-69
- Steinberg, James. I. and Klein, Alan L. 1998. "Global branding: Look before you leap". *Brandweek*. November 16. p 30
- Stern, B L and Resnik, A.J. 1991. Information content in television advertising, a replication and extension, *Journal of Advertising Research*, June/July. pp 36-46
- Stewart, E.C. 1985. Culture and Decision Making, in: Gudykunst, W.B., Stewart, L.P., Ting-Toomey, S.T. ed. *Communication, Culture, and Organizational Processes*. Sage Publications
- Süerdem, Ahmet. 1993. "Social de(re)construction of mass culture: Making (non)sense of consumer behavior". *International Journal of Research in Marketing*. Vol. 11. pp 423-443
- Synodinos, Nicolaos E; Keown, Charles F. and Jacobs, Laurence W. 1989. "Transnational advertising practices: A survey of leading brand advertisers in fifteen countries". *Journal of Advertising Research*. April-May. pp 43-50
- Szymanski, David. M; Bharadwaj, Sundar G. and Varadarajan, P. Rajan. 1993. "Standardization versus adaptation of international marketing strategy: an empirical investigation". *Journal of Marketing*. Vol. 57. October. pp 1-17
- Tai, Susan H.C. and Tam, Jackie L.M. 1996. "A comparative study of Chinese consumers in Asian markets - a lifestyle analysis. *Journal of International Consumer Marketing*. Vol. 9. No. 1. pp 25-42
- Tai, Susan H.C. 1997. "Advertising in Asia: Localize or regionalize?" *International Journal of Advertising*. Vol. 16. pp 48-61
- Takada, Hirokazu and Jain, Dipak. 1991. "Cross-national analysis of diffusion of consumer durable goods in Pacific Rim countries". *Journal of Marketing*. Vol. 55. April. pp 48-54
- Tan Tsu Wee, Thomas. 1999. "An exploration of a global teenage life-style in Asian Societies". *Journal of Consumer Marketing*. Vol. 16, No. 4. pp 365-375
- Taylor, R.E., and Hoy, M.G. 1995. "The presence of la séduction, le spectacle, l'amour and l'humour in French commercials". In S. Madden (Ed.), *Proceedings of the 1995 Conference of the American Academy of Advertising*. pp 36-42
- Taylor, Charles R; Miracle, Gordon E. and Wilson, R. Dale. 1997. "The impact of information level on the effectiveness of U.S. and Korean television commercials." *Journal of advertising*, Vol. 26. No. 1. Spring. pp 1-18
- Tellefsen, Thomas and Takada, Hirokazu. 1999. "The Relationship Between Mass Media Availability and the Multicountry Diffusion of Consumer Products". *Journal of International Marketing*. Vol. 7, No. 1. pp 77-96
- Terpstra, V. 1967. *American marketing in the Common Market*. Preager, New York.
- Tian Shuqian. 1992. "China, reform and consumers' changes". *IAA World Congress*, Barcelona.

- September 1992.
- Triandis, Harry C. 1995. "Individualism & Collectivism". Westview Press, Boulder
- Trompenaars, Fons. 1993. "Riding the waves of culture. Understanding cultural diversity in business". Nicholas Brealy Publishing, London
- Tse, David K.; Belk, Russell W. and Zhou, Nan. 1989. "Becoming a consumer society: A longitudinal and cross-cultural content analysis of print ads from Hong Kong, the People's Republic of China, and Taiwan." *Journal of Consumer Research*. Vol. 15. March. pp 457-472
- Turner Norris, Ruby. 1952. "The Theory of Consumer's Demand". Yale University Press, New Haven
- UN Statistical Year Books. Various Years. United Nations. New York.
- Usunier, Jean-Claude. 1994. "Social status and country-of-origin preferences." *Journal of Marketing Management*. Vol. 10. No. 8. pp 765-783
- Usunier, Jean-Claude. 1993. "International Marketing, A Cultural Approach" Prentice Hall
- Usunier, Jean-Claude. 1996. "Consommation: quand global rime avec local" (Consumption: when global rhymes with local). *Revue Française de gestion*. Vol. 110. pp 100-116
- Usunier, Jean-Claude. 1997. "Atomistic versus organic approaches". *International Studies of Management & Organization*. Vol. 26. No. 4. Winter 1996/1997. pp 90-112
- Van de Vliert, Evert; Kluwer, Esther S. and Lynn, Richard. 2000. "Citizens of warmer countries are more competitive and poorer: Culture or chance?" *Journal of Economic Psychology*. Vol. 21, No. 2. pp 143-165
- Varaldo, Riccardo and Marbach, Giorgio. 1995. "The changing consumer in Italy". *International Journal of Research in Marketing*. Vol. 12. pp 467-483
- Venkatesh, Alladi. 1995. "Ethnoconsumerism: A new paradigm to study cultural and cross-cultural consumer behavior." In: Arnold Costa, Janeen and Bamossy, Gary J. eds. 1995. "Marketing in a multicultural world". Sage Publications
- Vinson, Donald E., Scott, Jerome E., and Lamont, Lawrence M. 1977. "The role of personal values in marketing and consumer behavior." *Journal of Marketing*. April. pp 44-50
- Vladimir, I.A., 1950. "Industrial and export advertising". in Barton, R. (Ed.) *Advertising Handbook*. Prentice Hall, New York. NY.
- Vyncke, P. 1992. "Imago-Management: Handboek voor reclamestrategen" (Image management, handbook for advertising strategists). Gent, Belgium: Mys & Breesch, Uitgevers & College Uitgevers
- WARC Adspend Databank. Internet. www.warc.com
- Wassink, C. 1991. "La Douce France versus Nederland. 100 commercials gemeten en vergeleken". (Sweet France versus the Netherlands, 100 TV commercials measured and compared). Doctoraalscriptie Communicatiewetenschap. University of Amsterdam. Unpublished
- Watkins, Harry S. and Liu, Raymond. 1996. "Collectivism, individualism and in-group membership: implications for consumer complaining behaviors in multicultural contexts." In: Manrai, Lalita A. and Manrai, Ajay K. eds 1996. "Global perspectives in cross-cultural and cross-national consumer research". International Business Press/The Haworth Press. New York, London
- Wei, Ran. 1997. "Emerging lifestyles in China and consequences for perception of advertising, buying behavior and consumption preferences". *International Journal of Advertising*. Vol. 16. No. 4. Pp 261-275
- Weitzel, Lianne. 1999. "Packaging Design, Communicative value and culture." Final project for gaining the engineering degree at the University of Delft. Unpublished
- Welch, David and Terney, Christine. 2000. "Can the Mondeo get Ford back into the race?" *Business Week* October 16. p 29
- Wentz, Laurel and Mussey, Dagmar. 1999. "European marketers await pricing effect of the Euro". *Advertising Age*, January 11. p 6
- White, Roderick. 1990. "L'Europe Des Patries" and pan-European advertising", *ADMAP*. September 1990

- Whitelock, Jeryl, and Chung, Djamila. 1989. "Cross-cultural advertising. An empirical study." *International journal of Advertising*. Vol. 8. pp 291-310
- Whitelock, Jeryl and Pimblett, Carole. 1997. "The standardization debate in international marketing." *Journal of Global Marketing*. Vol. 10. No. 3. pp 45-66
- Wiechmann, Ulrich E. and Pringle, Lewis G. 1979. "Problems that plague multinational marketers". *Harvard Business Review*. July-August. pp 118-124
- Wierenga, Berend; Pruyn, Ad and Waarts, Eric. 1996. "The key to successful Euromarketing: standardization or customization? In: Manrai, Lalita A. and Manrai, Ajay K. eds 1996. "Global perspectives in cross-cultural and cross-national consumer research". International Business Press/The Haworth Press. New York, London
- Wikström, Solveig R. 1997. "The changing consumer in Sweden". *International Journal of Research in Marketing*. Vol 14. pp 261-274
- Wiles, Charles R; Wiles, Judith and Tjernlund, Anders. 1996. "The ideology of advertising: The United States and Sweden." *Journal of Advertising Research*. May/June. pp 57-66
- Williamson, John B. and Fleming, Jeanne J. 1996. "Convergence theory and the social welfare sector: A cross-national analysis." In: Inkeles, Alex and Sasaki, Masamichi. 1996. "Comparing nations and cultures". Prentice Hall, Englewood Cliffs
- Wind, Yoram, Douglas, Susan P., and Perlmutter, Howard V. 1973. "Guidelines for developing international marketing strategies". *Journal of Marketing*. Vol. 37. April. pp 14-23
- Wind, Yoram. 1986. "The myth of globalization". *The Journal of Consumer Marketing*. Vol.3. No. 2. Spring Issue. pp 23-26
- Woods, Walter A; Chéron, Emmanuel J. and Kim, Dong Man. 1985. "Strategic implications of differences in consumer purposes for purchasing in three global markets." In: Erdener Kaynak ed. "Global perspectives in marketing". Praeger, New York. pp 155-170
- World Advertising Expenditures. 1981 (17th edition) 1988 (23rd edition) and 1990 (25th edition) Starch Inra Hooper Group of Companies and International Advertising Association
- World Development Reports, Selected World Development Indicators. Various years. World Bank Publications, Washington DC, USA.
- Yankelovich, D. 1994. "How changes in the economy are reshaping American values." In: H. J. Aaron, T.E. Mann, & T. Taylor, (Eds.). "Values and public policy". Washington DC: Brookings Institution
- Yavas, Ugur; Verhage, Bronislaw J. and Green, Robert T. 1992. "Global consumer segmentation versus local market orientation: Empirical findings." *Management International Review*. Vol. 2. No. 3. pp 265-272
- Yip, George S. 1989. "Global strategy...in a world of nations?" *Sloan Management Review*. Fall.
- Yip, George S. 1997. "Patterns and determinants of global marketing." *Journal of Marketing Management*. Vol 13. pp 153-164
- Zandpour, F; Chang, C. and Catalano, J. 1992. "Stories, symbols and straight talk: A comparative analysis of French, Taiwanese, and U.S. TV commercials". *Journal of Advertising Research*. January/February. pp 25-38
- Zandpour, F; Campos, V; Catalano, J; Chang, C; Cho, Y.D; Hoobyar, R; Jiang, S.F; Lin, M. C; Madrid, S; Scheideler, H. and Osborn, S.T. 1994. "Global reach and local touch: Achieving cultural fitness in TV advertising". *Journal of Advertising Research*. September/October. pp 35-63
- Zandpour, Fred and Harich, Katrin R. 1996. "Think and feel country clusters: A new approach to international advertising standardization". *International Journal of Advertising*. Vol. 15. No. 4. pp 325-344
- Zhang, Yong and Gelb, Betsy D. 1996. "Matching advertising appeals to culture: The influence of products' use conditions." *Journal of Advertising*. Vol. 25. No. 3. pp 29-46
- Zhao, X and Shen, F. 1995. "Audience reaction to commercial advertising in China in the 1980s". *International Journal of Advertising*. 14. 374-390
- Zinkhan, George, M. 1994. "International advertising: A research agenda." *Journal of Advertising*. Vol. 23. No. 1. March. pp 11-15

APPENDIX: TABLES

A1. THE MACRO LEVEL: SOCIO-ECONOMIC VARIABLES

The macro-level socio-economic variables in this section are income, urbanization, education, health, housing and work and education of women.

A1.1. Income

The measurement used for income comparisons across countries is GNP per capita. CV = coefficient of variation. Divergence is marked by -, for clarity sake in some tables convergence is marked by +.

Data on GNP/capita are from UN Statistical Yearbooks (1960-1974) and World Bank Development Reports (1977-1998)

Table A.1. GNP/capita: CVs for three country clusters				
Year	Worldwide 44	Developed 26	Europe 15	
1960	.83	.58	.41	
1966	.84	.52	.38	
1970	.84	.50	.39	
1974	.84	.46	.39	
1977	.87	.50	.40	
1980	.88	.52	.41	
1985	.89	.51	.41	
1989	.93	.50	.37	
1991	.91	.47	.34	
1993	.86	.43	.30	
1995	.87	.45	.33	
1997	.86	.43	.33	
1998	.84	.42	.30	
Mean convergence-divergence per year	- .03	+ .73	+ .96	

Table A.2. Correlation Coefficients Cultural dimensions and GNP/cap. Worldwide 44 (LTO = 27)					
GNP/cap	PDI	IDV	MAS	UAI	LTO
1960	-.59***	.77***	.01	-.35**	-.45**
1966	-.63***	.83***	-.03	-.35**	-.39*
1970	-.64***	.83***	-.04	-.33*	-.35*
1976	-.63***	.80***	-.07	-.31*	-.36*
1980	-.61***	.78***	-.04	-.29*	-.32*
1985	-.61***	.78***	.02	-.38**	-.29
1990	-.63***	.73***	-.02	-.27*	-.26
1995	-.60***	.70***	.08	-.28*	-.14
1998	-.62***	.72***	.02	-.33*	-.25

Table A.3. Correlation coefficients Cultural dimensions and GNP/cap, Developed 26 (LTO = 22)

GNP/cap	PDI	IDV	MAS	UAI	LTO
1960	-.37*	.71***	-.06	-.45**	-.42*
1966	-.44*	.78***	-.14	-.46**	-.44*
1970	-.44*	.76***	-.17	-.44*	-.40*
1976	-.42*	.67***	-.22	-.39*	-.44*
1980	-.38*	.65***	-.17	-.34*	-.39*
1985	-.40*	.65***	-.08	-.48**	-.32
1990	-.45*	.61***	-.07	-.37*	-.26
1995	-.31	.41*	.03	-.34*	-.06
1998	-.35*	.48**	-.08	-.47**	-.26

Table A.4. Correlation coefficients Cultural dimensions and GNP/cap, Europe 15

GNP/cap	PDI	IDV	MAS	UAI	LTO
1960	-.30	.59**	-.20	-.51*	-.18
1966	-.30	.58*	-.29	-.52*	-.20
1970	-.31	.54*	-.31	-.50*	-.14
1976	-.30	.41	-.30	-.36	-.22
1980	-.28	.44*	-.19	-.28	-.22
1985	-.45*	.45*	-.19	-.46*	-.37
1990	-.43 ^{ns}	.40	-.10	-.40	-.28
1995	-.40	.39	-.00	-.30	-.40
1998	-.48*	.45*	-.09	-.44 ^{ns}	-.47*

A1.2. Urbanization

Data are from the World bank Development reports. Urbanization is defined as “Urban population as percent of total population” The World Bank (World Development Report 1999/2000) defines urban population as “the share of the population living in areas defined as urban in each country”. Table A5 presents the CVs. Table A6 presents correlation coefficients and percents variance explains (R^2).

Table A.5. CVs Urbanization for three country clusters

Year	Worldwide44	Developed26	Europe15
1965	.41	.29	.32
1970	.38	.25	.27
1980	.34	.21	.24
1985	.33	.20	.24
1990	.30	.19	.23
1995	.29	.19	.22
Mean convergence per year	.98	1.15	1.04

Table A.6. Urbanization: Income and cultural variables 1965-1995

	INC	PDI	IDV	MAS	UAI	LTO	Predictor	R ²
Worldwide								
1965	.60***	-.40***	.54***	.11	-.14	-.08	INC	.36
1970	.63***	-.42***	.56***	.04	-.14	-.11	INC	.40
1980	.58***	-.43***	.53***	.04	-.10	-.06	INC	.34
1985	.51***	-.39***	.49***	.03	-.08	-.03	INC	.26
1990	.48***	-.36**	.46***	.01	-.06	.00	INC	.23
1995	.44***	-.27*	.38**	.01	-.03	.02	INC	.19
Developed 26								
1965	.33*	-.01	.34*	.12	-.41*	.03	UAI (-)	.17
1970	.36*	-.05	.37*	-.00	-.46**	-.02	UAI (-)	.21
1980	.27	-.06	.27	-.01	-.42*	.05	UAI (-)	.18
1985	.14	.02	.22	-.05	-.39*	.08	None ¹	
1990	-.00	.03	.18	-.07	-.36*	.14	None	
1995	.01	.12	.06	-.04	-.30	.22	None	
Europe 15								
1965	.45*	.04	.72***	.04	-.25	.29	IDV	.52
1970	.57*	-.00	.79***	-.12	-.33	.12	IDV	.63
1980	.53*	-.09	.76***	-.13	-.34	.11	IDV	.58
1985	.33	-.03	.76***	-.17	-.36	.10	IDV	.58
1990	.24	-.01	.75***	-.19	-.32	.08	IDV	.56
1995	.28	.01	.74***	-.18	-.32	.09	IDV	.54

A1.3. Education

“Percent of age group enrolled in secondary/tertiary education” (World Bank Development Reports 1978, 1988, 1993, 1998/99 & 1999/2000)

Table A.7. CVs Education three country clusters

Year	Worldwide44	Developed26	Europe15
Secondary education			
1960	.58	.35	.33
1965	.51	.30	.25
1970	.49	.25	.17
1975	.41	.22	.16
1980 ²	.38	.25	.21
1985	.35	.18	.17
1990	.35	.19	.15
1996	.35	.19	.06
Mean convergence per year	1.72	1.43	2.27
Tertiary education			
1965	.75	.54	.32
1985	.45	.33	.22
1993	.53	.39	.23
Mean convergence per year	1.05	.99	1.00

¹ Although there is a significant zero-order correlation with UAI, the contribution in stepwise multiple regression is too small to give explaining power to this variable.

² A few data are lacking for this year. Worldwide 44 = 29 countries; Developed 26 = 18 countries; Europe15 = 11 countries.

Table A.8 Secondary and tertiary education Worldwide 44 ¹ : Income and cultural variables										
	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Secondary education										
1960	.80***	-.62***	.77***	.04	-.22	-.18	INC	.64	IDV	.68
1965	.77***	-.56***	.73***	-.06	-.23	-.22	INC	.59		
1970	.81***	-.60***	.77***	-.09	-.17	-.31	INC	.66		
1975	.71***	-.49***	.72***	.06	-.13	-.24	IDV	.52	INC	.57
1980	.78***	-.59***	.74***	-.00	-.26	-.38	INC	.62		
1985	.78***	-.53***	.74***	-.00	-.22	.19	INC	.61		
1990	.79***	-.53***	.73***	-.05	-.16	-.10	INC	.63		
1996	.80***	-.59***	.72***	-.04	-.29	-.18	INC	.64		
Tertiary education										
1965	.76***	-.42***	.67***	.08	-.24	-.24	INC	.58		
1985	.58***	-.41***	.56***	.05	-.14	-.07	INC	.33		
1993	.57***	-.49***	.60***	-.06	-.32*	-.31	INC	.36		

Table A.9. Secondary and tertiary education Developed 26: Income and cultural variables								
	INC	PDI	IDV	MAS	UAI	LTO	Pred.	R ²
Secondary education								
1960	.56***	-.46**	.64***	-.02	-.26	-.07	IDV	.36
1965	.48*	-.40	.59***	-.18	-.30	-.14	IDV	.31
1970	.59***	-.51**	.70***	-.23	-.25	-.36	IDV	.44
1975	.50***	-.09	.50***	-.10	.05	-.13	INC	.25
1980	.64***	-.58**	.65***	-.18	-.30	-.15	IDV	.42
1985	.59***	-.37*	.62***	-.18	-.30	-.15	IDV	.42
1990	.60***	-.40*	.55***	-.30	-.09	-.27	INC	.36
1996	.54**	-.44*	.54**	-.23	-.14	.31	IDV	.30
Tertiary education								
1965	.71***	-.23	.56***	.02	-.24	-.15	INC	.50
1985	.46**	-.29	.46**	-.08	-.11	-.05	INC	.21
1993	.25	-.15	.42*	-.14	-.31	-.17	IDV	.18

¹ Worldwide 44 includes 44 countries with some variation: 1965 (42), 1970 (41), 1975 (43), 1980 (29), 1985 (42), 1990 (40), 1995 (30), 1996 (31). LTO data vary between 16 and 13 countries. Data for 1960 and 1975 are from the World Bank Development Report 1978; 1965 and 1985 are from the World Bank Development Report 1988; 1970 and 1990 are from the World Bank Development Report 1993; 1980 and 1996 are from the World Bank Development Report 1999/2000. Between 1975 and 1980 there seems to be a break in data collection; comparison of the data for 1975 and 1980 shows for a number of countries a decline, for others an increase. This particularly affects the calculations for Europe 15.

Table A.10 Secondary and tertiary education, Europe 15: Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Secondary education										
1960	.57*	-.31	.62**	-.20	-.39	-.14	IDV	.38		
1965	.47*	-.27	.49*	-.42	-.43	-.30	None			
1970	.56*	-.36	.38	-.43	-.46*	-.26	INC	.31		
1975	-.03	-.36	.38	-.43	-.46	-.26	None			
1980	.70***	-.32	.68***	-.21	-.47*	-.35	INC	.49	IDV	.65
1985	.51*	-.24	.66***	-.27	-.48*	-.34	IDV	.43		
1990	.52*	-.17	.43	-.30	-.32	-.28	None			
1996	.41	.13	.56*	-.25	-.12	.03	IDV	.31		
Tertiary education										
1965	.51*	.05	.71***	-.28	-.29	-.15	IDV	.51		
1985	.51*	-.19	.47*	-.45*	-.31	.10	None			
1993	.40	-.13	.29	-.37	-.11	-.34	None			

A1.4. Health

Number of doctors per 1,000 population (OECD Economic Surveys).

Table A.11. CVs Doctors per 1,000 population, OECD 20

1969	.25
1975	.22
1981	.29
1985	.34
1990	.32
1995	.33
Mean divergence per year	-.93

A1.5. Housing

Data Eurostat Yearbook 1997 (13 countries EU): 1981 and 1991: percent of population living in one family house and: percent of population living in more family house

Reader's Digest Surveys 1970 and 1991: ownership private garden

EMS99: housing 1999. Question asked is: "How would you describe your main home?"

Answer categories: detached; semi-detached; terraced; in an apartment block; don't know.

Answer categories used: Detached; Semi-detached; Apartment.

The combined data of detached and semi-detached (indication for houses with gardens).

Table A.12. CVs Housing: Europe		
	One family house	More family house
1981	.04	.80
1991	.06	.84
Type of house		
1999 Detached	.33	
1999 Semi-detached	.61	
1999 Apartment	.68	
Private garden		
1970	.46	
1991	.43	
1999 (houses detached/semi-detached)	.26	

Table A.13. Houses and gardens Europe: Income and cultural variables										
	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
One family house										
1981	-.09	.62*	.11	-.08	.36	.24	PDI	.39		
1991	-.57*	.57*	-.07	.54*	.43	.45	PDI	.33	MAS	.66
							INC (-)	.81		
More family house										
1981	-.37	.04	-.88***	.17	.42	.26	IDV (-)	.78		
1991	-.14	-.22	-.53*	-.37	.06	-.40	None			
Type of house										
1999 Detached	.45	-.24	.30	-.30	-.42	-.71***	LTO (-)	.50		
1999 Semi-Det.	-.11	-.17	.29	.37	-.22	.08	None			
1999 Apartment	-.32	.37	-.62**	.15	.61**	.35	IDV (-)	.38		
Private garden										
1970	.50*	-.47*	.74***	.02	-.64**	-.30	IDV	.54		
1991	.07	-.33	.72***	-.02	-.56*	-.20	IDV	.51		
1999	.37	-.33	.45*	-.07	-.52*	-.63**	LTO (-)	.39	UAI (-)	.61

A1.6. Women: Work and Education

Data on female share of labor force are from the World Bank Development Reports 1994 and 1999/2000. For 1970 and 1992, data New Zealand N/A.

Table A.14. CVs Female share of labor force, three country clusters			
	Worldwide 44	Developed 26	Europe 15
1970	.28	.20	.21
1980	.23	.17	.15
1992	.20	.15	.17
1998	.14	.10	.10
Mean convergence per year	1.79	1.79	1.87

Table A.15. Female share of labor force 1970-1998: Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²	Pred. 3	R ²
Worldwide 44												
1970	.47***	-.32*	.51***	-.00	-.31*	.16	IDV	.26				
1980	.59***	-.37**	.54***	-.17	-.40***	.00	INC	.35				
1992	.68***	-.42***	.64***	-.17	-.32*	-.07	INC	.46				
1998	.63***	-.45***	.61***	-.24	-.29*	-.12	INC	.40	MAS (-)	.46	IDV	.52
Developed 26												
1970	.54***	-.47**	.42*	.07	-.22	-.01	INC	.29				
1980	.60***	-.38*	.32	-.35*	-.34*	-.16	INC	.36				
1992	.64***	-.40*	.48**	-.29	-.32	-.30	INC	.40				
1998	.46**	-.35*	.47**	-.48**	-.33*	-.28	MAS (-)	.23	IDV	.42		
Europe 15												
1970	.55*	-.44*	.27	.09	-.31	-.20	INC	.30				
1980	.47*	-.35	-.03	-.37	-.26	-.32	None					
1992	.44*	-.25	.14	-.32	-.23	-.35	None					
1998	.29	-.08	.02	-.63**	-.21	-.29	MAS (-)	.40				

Eurostat, Year Books. Data for Europe15 (1986, 1991, 1995): Women working part-time, % of total working women; Men working part-time, % of total working men; Women in higher education, % of total population in higher education.

Table A.16. CVs Part-time work and women in higher education, Europe

Year	% women working part-time	% men working part-time	% women in higher education
1986	.56	.74	.12
1991	.52	.72	.11
1995	.47	.56	.10
Mean convergence per year	1.79	2.70	1.85

Table A.17. Part-time work and women in higher education Europe 15: Income and culture

	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
% women working part-time ¹⁾										
1986	.71***	-.38	.59*	-.61*	-.64**	-.08	INC	.50		
1991	.63**	-.38	.57*	-.40	-.57*	-.12	INC	.40		
1995	.63**	-.38	.56*	-.34	-.52*	-.04	INC	.39		
% men working part-time ²⁾										
1986	.46*	-.26	.34	-.75***	-.47*	-.09	MAS (-)	.57	IDV	.71
1991	.33	-.33	.36	-.64***	-.54*	-.05	MAS (-)	.40		
1996	.33	-.38	.36	-.63**	-.57*	-.04	MAS (-)	.40	UAI (-)	.58
% women in higher education										
1986	-.38	-.30	.38	-.56*	.19	.07	MAS (-)	.31	INC (-)	.56
1991	-.45*	.29	-.31	-.57*	.13	-.09	MAS (-)	.33	INC (-)	.57
1995	-.60**	.30	-.26	-.54*	.12	-.06	INC (-)	.36	MAS (-)	.65

¹⁾ 14 countries: Finland N/A; 1986: Switzerland N/A. ²⁾ 1986: Switzerland N/A.

A2. COMMUNICATION AND TECHNOLOGY

A2.1. Telephones

"Telephones in use per 100 or telephone main lines per 1,000 inhabitants" from UN Statistical Yearbooks and from the World Bank Development Reports.

Year	Worldwide 44	Developed 26	Europe15
1966	1.12	.71	.57
1970	1.06	.66	.52
1975	.99	.57	.45
1980	.92	.50	.40
1990	.78.	.34	.26
1996	.67	.26	.18
1998	.64	.26	.17
Mean convergence per year	1.34	1.98	2.19

Year	INC	PDI	IDV	MAS	UAI	LTO	Pred 1	R ²	Pred 2	R ²	Pred 3	R ²
Worldwide 44 (LTO = 27 countries)												
1966	.95***	-.64***	.79***	-.05	-.40***	-.28	INC	.90				
1970	.95***	-.65***	.80***	-.06	-.38***	-.29	INC	.90				
1975	.93***	-.65***	.79***	-.03	-.35*	-.26	INC	.86				
1980	.92***	-.67***	.82***	-.04	-.37**	-.28	INC	.85	IDV	.88		
1990	.89***	-.67***	.78***	-.09	-.31*	-.25	INC	.79	IDV	.83		
1996	.89***	-.66***	.76***	-.09	-.26*	-.23	INC	.78	IDV	.83	MAS (-)	.85
1998	.92***	-.66***	.75***	-.11	-.26*	-.25	INC	.85	MAS (-)	.87	IDV	.89
Developed 26 (LTO = 22 countries)												
1966	.92***	-.50***	.70***	-.17	-.49***	-.27	INC	.84				
1970	.91***	-.51***	.71***	-.18	-.48**	-.28	INC	.83				
1975	.85***	-.49***	.72***	-.14	-.46**	-.24	INC	.72				
1980	.83***	-.49**	.73***	-.19	-.50***	-.28	INC	.69	IDV	.75		
1990	.85***	-.46**	.63***	-.33 ^{ns}	-.47**	-.26	INC	.72	MAS (-)	.79		
1996	.68***	-.43*	.60***	-.31	-.46**	-.26	INC	.47	IDV	.59	MAS (-)	.68
1998	.79***	-.43*	.58***	-.36*	-.48**	-.36*	INC	.63	MAS (-)	.72	IDV	.76
Europe 15												
1966	.87***	-.42	.37	-.36	-.59*	.02	INC	.76				
1970	.86***	-.41	.37	-.35	-.57*	.06	INC	.74				
1975	.81***	-.41	.42	-.31	-.57*	.07	INC	.66				
1980	.85***	-.41	.47*	-.33	-.57*	-.01	INC	.72	UAI (-)	.83		
1990	.85***	-.39	.47*	-.43	-.56*	-.12	INC	.73	MAS (-)	.85		
1996	.75***	-.38	.48*	-.40	-.58*	-.18	INC	.56	MAS (-)	.71		
1998	.85***	-.43	.45*	-.48*	-.60**	-.31	INC	.72	MAS (-)	.87		

Data EMS 1999: "Which of the following items do you or other family members of your household personally own?" % answers: Number of telephone lines in the home, different numbers (fax dedicated lines not included): 1, 2 or 3; Total international calls inside and outside Europe; Mobile phone.

Table A.20. Telephone behavior, Europe 15

	CV	INC	PDI	IDV	MAS	UAI	LTO	Pred 1	R ²	Pred 2 R ²
1 telephone line	.03	-.63**	.42	-.47*	.27	.51*	.26	INC (-)	.39	
2 telephone lines	.38	.55*	-.39	.49*	-.39	-.56*	-.33	INC	.30	
3 telephone lines	.63	.57*	-.34	.30	.03	-.25	-.04	INC	.33	
Total int'l calls	.28	.59**	-.48*	.51*	.03	-.64***	-.29	UAI (-)	.40	INC .58
Mobile phones	.29	.00	-.38	.01	-.65***	-.46*	-.08	MAS (-)	.42	

A2.2. Passenger cars

The World Bank report “World Tables” (1979/1980) provides data on passenger cars/1,000 population for 1960 and 1970. The World Bank report “World Development Indicators” 1999 provides data on passenger cars/1,000 population for 1980 and 1997. Data for 1990 are assembled from data on total numbers of passenger cars from the UN Statistical Yearbook 1997, divided by total population of the same year.

Table A.21. CVs Passenger cars per 1,000 population, three country clusters

Year	Worldwide 44	Developed 26	Europe 15
1960	1.39	1.01	.56
1970	1.04	.63	.34
1980	.91	.50	.23
1990	.84	.42	.18
1997	.79	.37	.18
Mean convergence per year	1.17	1.71	1.83

Table A.22. Passenger cars/1,000 population: Income and cultural variables

Year	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²	Pred. 3	R ²
Worldwide 44 (LTO = 27)												
1960	.91***	-.48***	.72***	.07	-.39***	-.27	INC	.82				
1970	.94***	-.60***	.88***	.03	-.39***	-.38*	INC	.89	IDV	.92		
1980	.88***	-.63***	.89***	.07	-.31*	-.37*	IDV	.80	INC	.88		
1990	.85***	-.64***	.88***	.06	-.24	-.37*	IDV	.78	INC	.87		
1997	.77***	-.64***	.85***	.01	-.20	-.42*	IDV	.71	INC	.83	UAI	.87
Developed 26 (LTO = 22)												
1960	.90***	-.29	.65***	.03	-.45*	-.27	INC	.81				
1970	.89***	-.39*	.85***	-.06	-.49**	-.43*	INC	.80	IDV	.86		
1980	.74***	-.43*	.87***	-.00	-.37*	-.46*	IDV	.76	INC	.82		
1990	.73***	-.42*	.86***	-.01	-.26	-.49**	IDV	.73	INC	.81		
1997	.52***	-.42*	.79***	.06	-.12	-.38*	IDV	.62				
Europe 15												
1960	.89***	-.18	.54*	-.09	-.49*	-.07	INC	.80				
1970	.91***	-.20	.74***	-.11	-.46*	-.07	INC	.82	IDV	.91		
1980	.83***	-.19	.67***	.01	-.29	-.03	INC	.69	IDV	.81		
1990	.69***	.02	.44*	.13	.03	.07	INC	.47				
1997	.40	.05	.26	.39	.24	.15	None					

For Europe 15 variance in ownership and preferences of cars are measured.

Number of cars owned: The Reader's Digest surveys (1970, 1991) distinguish between ownership of one or two cars in the household, while the EMS (1995, 1997, 1999) question is: “How many cars do you have in your household?” Answers 1, 2, 3 or 4+.

New or used/second hand: Reader's Digest ask if the car was bought new or used. EMS

surveys ask for main car and second car, whether the car was bought new or second hand. Knowledge engine size: Reader's Digest surveys and EMS ask questions about the engine size of the car. For most used car or main car and for second car. For measuring differences in interest in technology, answer categories "no answer" of the Reader's Digest surveys are used, and "don't know" of the EMS surveys.

Involvement partner: EMS asks who was involved in choosing the make and model to buy of the main and second car. Answer categories: you, your partner, another household member, your employer/business partner, someone else. Answers "your partner".

Type of car: Both in the Reader's Digest and the EMS surveys, respondents are asked which type of car they own. The RD surveys distinguish between most used and second car, EMS between main car and second car. The answer categories in Reader's Digest 1970 are: saloon, estate and sports; in 1991: saloon/hatchback, estate/station wagon, coupe, sports car, jeep type, convertible. The percent answers to the last two categories are very small, so they are not used in the calculations. Answer categories in the three EMS reports are: Saloon, Coupe/Sports, Hatchback, Stationwagon/estate car, Cabriolet/soft top, All Terrain Vehicle, Space cruiser. The answers to the latter three categories are too small and are not used. For all years, selected answers are for most used or main car.

Other data on car ownership: EMS97: "no second car" as answer to question which type of second car owned. Euromonitor 1997: new car registrations per 1,000 population.

Table A.23. CVs for various aspects of car ownership, Europe15							
	1970	1991	Means 70-91	1995	1997	1999	Means 95-99
Numbers of cars owned							
One car	.24	.14	+ 1.98	.18	.17	.20	- 2.00
Two cars	.46	.36	+ 1.04	.17	.17	.17	0
Three cars				.42	.44	.46	- 1.74
Four cars				.63	.55	.55	+ 2.54
Type of car owned							
Saloon	.08	.17	- 2.52	.43	.25	.25	+ 8.37
Station wagon	.58	.46	+ 1.00	.52	.55	.54	- 0.74
Sports car	.59	.96	- 1.84	.43	.35	.35	+ 3.72
Hatch Back				.43	.36	.33	+ 4.65
Car bought new							
Main car	.23	.29	- 0.99	.26	.26	.24	+ 0.10
Second car				.48	.48	.48	0
No knowledge of engine size							
Main car	.87	.81	+ 0.33	.80	.87	.80	0
Second car		.90		.59	.64	.57	+ 0.68
Partner involved							
				.26	.26	.26	0

Table A.24. No second car and New car registrations 1996, Europe 15: Income and culture								
	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1 R ²	Pred. 2 R ²
No 2 nd car	.39	-.58*	-.05	-.63**	-.53*	-.04	MAS (-).40	PDI (-).75
New car registr.	.27	-.08	.10	.74***	.25	.06	MAS .55	

Table A.25: Numbers of cars owned, Europe 15¹⁾: Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²	Pred.3	R ²
One car owned												
1970	.89***	-.41	.71***	-.12	-.63**	-.17	INC	.80				
1991	.43	-.26	.58*	-.14	-.45*	.01	IDV	.34				
1995	.19	-.61**	-.17	-.52*	-.55*	.14	PDI (-)	.37	MAS (-)	.65		
1997	.34	-.58*	-.08	-.63**	-.51*	-.05	MAS (-)	.40	PDI (-)	.74		
1999	.31	-.62**	-.15	-.61**	-.50*	.04	PDI (-)	.38	MAS (-)	.76		
Two cars owned												
1970	.57*	-.15	.54*	.50*	-.23	-.07	INC	.32	MAS	.83		
1991	.22	.19	.28	.15	.16	-.19	None					
1995	.02	.61**	.31	.28	.47*	-.16	PDI	.38	IDV	.59	UAI	.75
1997	-.28	.53*	.27	.62**	.40	-.09	MAS	.38	PDI	.67	IDV	.81
1999	-.18	.50*	.37	.51*	.29	-.21	None					
Three cars owned												
1995	-.39	.30	.06	.64***	.28	.00	MAS	.41				
1997	-.41	.46*	-.31	.56*	.63**	.19	UAI	.40	MAS	.57		
1999	-.36	.52*	-.29	.53*	.70***	.10	UAI	.50				
Four cars owned												
1995	-.51*	.36	-.45*	.47*	.44 ^{ns}	.13	None					
1997	-.61**	.45*	-.52*	.09	.37	.44 ^{ns}	INC (-)	.37				
1999	-.60**	.37	-.44 ^{ns}	.22	.34	.33	INC (-)	.36				

¹⁾Data of 1970 are for 14 countries, data for Switzerland N/A

Table A.26: Car preferences and decision making, Europe 15: Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Main car bought new										
1970	-.47*	.60**	-.46*	.22	.79***	.17	UAI	.63		
1991	-.35	.58*	-.55*	.31	.85***	.19	UAI	.73		
1995	-.34	.63**	-.50*	.43	.81***	.33	UAI	.66		
1997	-.32	.57*	-.42	.46*	.80***	.21	UAI	.63		
1999	-.38	.48*	-.43	.46*	.73***	.22	UAI	.53		
Second car bought new										
1995	-.22	.68***	-.27	.48*	.78***	.10	UAI	.61		
1997	-.30	.64***	-.21	.54*	.76***	.12	UAI	.58	MAS	.71
1999	-.39	.61**	-.26	.57*	.75***	.10	UAI	.57	MAS	.73
No knowledge engine size of main car										
1970	-.18	.05	-.10	.30	.20	.11	None			
1991	-.12	.41	-.21	-.41	.23	.11	None			
1995	.20	-.04	.04	-.51*	-.25	.18	None			
1997	.28	-.16	.05	-.57*	-.30	.06	MAS (-)	.33		
1997 ¹⁾	.33	-.47*	-.21	-.63**	-.37	.06	MAS (-)	.40	PDI (-)	
	.63									
1999	.23	-.04	.05	-.50*	-.20	.08	None			
Involvement partner										
1995	-.21	.01	-.09	-.71***	-.34	-.13	MAS (-)	.50		
1997	-.14	.11	-.04	-.61**	-.26	-.24	MAS (-)	.37		
1999	-.08	.12	-.05	-.59**	-.26	-.28	MAS (-)	.35		

¹⁾ No knowledge plus no answer to question

	INC	PDI	IDV	MAS	UAI	LTO	Predictor	R ²
Saloon								
1970	.55*	-.26	.67***	-.16	-.48*	-.18	IDV	.45
1991	-.16	-.25	.38	.27	-.10	-.15	None	
1995	-.22	.77***	-.04	-.15	.50*	-.21	PDI	.59
1997	-.38	.50*	-.19	-.17	.33	-.17	None	
1999	-.39	.43 ^{ns}	.27	-.14	.26	-.15	None	
Station wagon/estate car								
1970	-.14	.19	-.45 ^{ns}	-.30	.17	.15	None	
1991	.19	-.32	-.22	.22	.11	.34	None	
1995	.48*	-.61	.00	-.10	-.44*	-.11	PDI (-)	.37
1997	.68***	-.47*	.23	-.29	-.44 ^{ns}	-.00	INC	.46
1999	.67***	-.46*	.23	-.32	-.40	-.04	INC	.45
Hatchback								
1995	-.24	.16	.17	.65***	.24	.21	MAS	.42
1997	-.38	-.14	-.07	.38	.03	.29	None	
1999	-.36	-.18	-.10	.31	-.05	.27	None	

¹) Data of 1970 are for 14 countries, data for Switzerland N/A

There are few relationships between sports cars and culture. In 1991 and 1995, income explains variance. In 1991 35 percent and in 1995 31 percent.

A2.3. Television

Data on TV ownership per 1,000 inhabitants are from UN Statistical Yearbooks (data 1975 - 1994) and World Development Reports (data 1996-1997-1998). Penetration of VCRs are from McCann Erickson. Data worldwide are for 30 countries¹, data for the group developed countries are for 20 countries².

Year	Worldwide 44	Developed 26	Europe 15
1960	1.51	1.21	1.00
1970	.86	.51	.30
1975	.83	.44	.30
1980	.75	.38	.24
1985	.72	.38	.24
1990	.64	.35	.17
1994	.62	.34	.17
1998	.50	.28	.11
Mean convergence per year	1.76	2.02	2.43
	Worldwide 30	Developed 20	Europe 15
VCRs 1996	.36	.18	.13

¹ Argentina, Austria, Belgium, Chile, Colombia, Denmark, Ecuador, Finland, France, Germany, Greece, Ireland, Indonesia, Italy, Japan, Korea, Malaysia, Mexico, Netherlands, Norway, Peru, Portugal, Singapore, Spain, Sweden, Switzerland, Thailand, Turkey, United Kingdom, Uruguay

² Developed 26, minus Australia, Canada, Israel, New Zealand, USA, and Venezuela.

Table A.29. TVs/1,000 1960-1997 and VCR penetration 1996: Income and cultural variables										
Year	INC	PDI	IDV	MAS	UAI	LTO	Pred.1 R ²	Pred. 2 R ²	Pred. 3 R ²	
Worldwide 44¹ (LTO = 27)										
1960	.81***	-.39	.64***	.09	-.50***	-.50***	INC	.65		
1970	.94***	-.66***	.88***	.04	-.36**	-.30	INC	.88	IDV	.90
1975	.91***	-.65***	.82***	.01	-.35*	-.33*	INC	.83	IDV	.86
1980	.89***	-.63***	.80***	.06	-.30*	-.14	INC	.79	IDV	.82
1985	.92***	-.64***	.80***	.06	-.27*	-.13	INC	.85	IDV	.87
1990	.86***	-.61***	.78***	.04	-.25*	-.13	INC	.75	IDV	.80
1994	.83***	-.56***	.73***	.03	-.17	-.10	INC	.69	IDV	.74
1998	.77***	-.58***	.68***	-.02	-.06	-.17	INC	.59	UAI	.63
VCRs	.63***	-.31*	.44**	-.04	-.27	.23	INC	.40	IDV	.68
Developed 26² (LTO = 22)										
1960	.76***	-.18	.55***	.04	-.50**	-.04	INC	.58		
1970	.87***	-.46**	.84***	-.05	-.52***	-.43	INC	.76	IDV	.83
1975	.80***	-.48**	.80***	-.07	-.55***	-.39*	IDV	.64	INC	.77
1980	.75***	-.38*	.69***	.01	-.44*	-.06	INC	.56	IDV	.64
1985	.84***	-.40*	.71***	.04	-.43*	-.08	INC	.71	IDV	.76
1990	.74***	-.35*	.67***	.03	-.39*	-.08	INC	.54	IDV	.62
1994	.65***	-.25	.62***	.03	-.31	-.01	INC	.42	IDV	.57
1998	.57***	-.28	.67***	-.03	-.19	-.22	IDV	.45		
VCRs	.11	.20	-.24	-.32	-.44*	.54*	LTO	.29	MAS (-)	.51
Europe 15										
1960	.58*	-.23	.61**	-.10	-.57*	.20	IDV	.37		
1970	.78***	-.45*	.77***	-.15	-.69***	.03	INC	.61	IDV	.79
1975	.68***	-.58*	.68***	-.10	-.64***	-.12	INC	.46	IDV	.65
1980	.74***	-.46*	.68***	-.18	-.54*	-.04	INC	.55	IDV	.70
1985	.68***	-.48*	.65***	-.14	-.50*	-.06	INC	.46		
1990	.59*	-.41	.42	-.18	-.32	.03	INC	.35		
1994	.47*	-.09	.39	-.17	-.10	-.18	None			
1998	.26	-.03	.17	-.31	-.11	-.36	None			
VCRs	-.19	-.08	.33	-.62**	-.52*	.02	MAS (-)	.39	PDI (-)	.77

EMS 1999 asks respondents to mark the number of TV sets in the household: one two or three or more; also questions are asked on the type of TV set owned, e.g. wide screen TV.

Table A.30. CVs TV ownership: number of TV sets, Europe 15

	1999
One TV set	.33
Two TV sets	.18
Three TV sets	.43
Wide screen TV	.42

¹ 1960: 37 countries; 1970: 42 countries

² 1960: 23 countries

Table A.31. Number of TV sets in household 1999, Europe 15: Income and cultural variables										
TV sets	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
One	.74***	.05	.21	.24	.20	-.26	INC	.55	UAI	.75
Two	-.66***	-.09	-.13	-.49*	-.25	.37	INC (-)	.44	UAI (-)	.66
Three +	-.63**	-.09	-.23	-.06	-.18	.14	INC (-)	.40		
Wide screen	-.28	.57*	-.32	.45*	.63**	-.28	UAI	.38		

The IP International TV Committee publishes data on "viewing time per individuals in minutes" for 19 countries worldwide¹. For Europe, such data are available from more sources. 1970 & 1991: Reader's Digest Surveys = "mean hours spent weekly watching television among all adults"; 1993-1995 and 1999: IP International TV Committee = TV daily viewing minutes; 1996-1998: Initiative Media (M&M Europe) = TV daily viewing minutes.

Table A.32. CVs Daily viewing minutes 1970-1998, Worldwide 19 and Europe 15	
	19 countries worldwide
1970	
1991	
1993	.21
1994	.20
1995	.19
1996	
1997	
1998	
1999	
	Europe 15
1970	.29
1991	.17
1993	.19
1994	.17
1995	.17
1996	.17
1997	.18
1998	.18
1999	.18
Worldwide: mean convergence per year 93-95: 3.17	
Europe: 70-91: mean convergence per year: 1.97; 91-99: mean divergence per year: .69	

Table A.33. Daily viewing minutes 1970 - 1999: Income and cultural variables												
Year	INC	PDI	IDV	MAS	UAI	LTO	Pred.1	R ²	Pred.2	R ²	Pred. 3	R ²
Worldwide 19 (LTO = 17)												
1993	-.08	.58**	-.30	.63***	.54*	.52*	MAS	.40	PDI	.65		
1994	-.08	.49*	-.02	.46*	.24	.47*	PDI	.24	MAS	.44	UAI (-)	.63
1995	-.14	.48*	-.05	.50*	.26	.44*	MAS	.25	PDI	.47	UAI (-)	.65
Europe 15												
1970	.05	-.07	.57*	.09	-.42	-.05	IDV	.32				
1991	-.26	.29	.51*	.28	-.03	.02	None					
1993	-.50*	.50*	.13	.52*	.28	.49*	MAS	.27	PDI	.52	UAI (-)	.67
							Predictor 4:		INC (-)	.79		
1994	-.55*	.49*	.12	.40	.21	.51*	None					
1995	-.49*	.45*	.13	.46*	.20	.50*	None					
1996	-.63**	.37	.09	.33	.16	.54*	INC (-)	.42				
1997	-.60**	.34	.19	.41	.11	.49*	INC (-)	.37				
1998	-.40	.31	.26	.38	.04	.06	None					
1999	-.53*	.33	.29	.40	.05	.13	INC (-)	.28	IDV	.59		

¹ Europe 15 plus Greece, Japan, Turkey and USA; 1993: no data for USA

A2.4. Radios

Data are radios per 1,000 inhabitants, source UN Statistical Yearbooks of various years and World Bank Development Indicators (data 1997).

Table A.34. CVs Radios/1,000, three country clusters			
	Worldwide 44	Developed 26	Europe 15
1960	.92	.68	.33
1970	.94	.80	.24
1975	.87	.59	.37
1980	.81	.54	.36
1985	.71	.46	.33
1990	.69	.45	.35
1995	.66	.44	.35
1997	.64	.42	.36
Mean convergence-divergence per year	+1.82	+1.03	- .22

Table A.35. Radios/1,000: Income and cultural variables										
Year	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Worldwide 44 (LTO = 27)										
1960	.89***	-.50***	.67***	.00	-.29*	-.29	INC	.79		
1970	.75***	-.37**	.57***	.06	-.15	-.20	INC	.57		
1975	.78***	-.51**	.73***	.11	-.27*	-.23	INC	.60	IDV	.64
1980	.73***	-.44***	.73***	.03	-.31*	-.17	IDV	.54	INC	.60
1985	.83***	-.53***	.74***	.05	-.31*	-.11	INC	.69		
1990	.71***	-.53***	.75***	.08	-.32*	-.09	IDV	.57	INC	.63
1995	.69***	-.54***	.75***	.10	-.31*	-.10	IDV	.56	INC	.62
1997	.75***	-.55***	.73***	.07	-.34*	-.13	IDV	.53	INC	.63
Developed 26 (LTO = 22)										
1960	.88***	-.29	.59***	-.05	-.52***	-.28	INC	.78		
1970	.72***	-.20	.52***	.01	-.21	-.18	INC	.53		
1975	.61***	-.27	.65***	.10	-.37*	-.22	IDV	.42		
1980	.54***	-.17	.64***	-.03	-.39*	-.15	IDV	.45		
1985	.68***	-.25	.61***	.01	-.42*	-.04	INC	.46		
1990	.47**	-.26	.63***	.05	-.44*	-.01	IDV	.40		
1995	.35*	-.27	.65***	.06	-.44*	-.02	IDV	.42		
1997	.46**	-.30	.61***	.00	-.49**	-.07	IDV	.37		
Europe 15										
1960	.90***	-.53*	.60**	-.26	-.61**	-.13	INC	.81	PDI (-)	.89
1970	.83***	-.24	.60**	-.34	-.43	-.04	INC	.69		
1975	.71***	-.34	.66***	.01	-.43	-.37	INC	.50	IDV	.67
1980	.76***	-.33	.73***	-.09	-.54*	-.25	INC	.58	IDV	.77
1985	.73***	-.35	.78***	-.13	-.59**	-.29	IDV	.61	INC	.79
1990	.55*	-.34	.85***	-.03	-.62**	-.22	IDV	.72		
1995	.41	-.34	.85***	-.01	-.61**	-.22	IDV	.72		
1997	.50*	-.41	.70***	-.08	-.58*	-.28	IDV	.48		

A2.5. Newspapers

Time series of circulation data of daily newspapers (copies/1,000 inhabitants). 1950-1990: UN Statistical Yearbooks. 1996: World Development Report 1999/2000. A daily general interest newspaper is defined as a publication devoted primarily to recording general news. It is considered to be “daily” if it appears at least four times a week. 1970 data are of daily and non-daily newspapers.

Table A.36. CVs Daily Newspapers, three country clusters

	Worldwide 44	Developed 26	Europe 15
1950	.90	.56	.51
1960	.78	.48	.46
1970	.81	.51	.45
1975	.78	.48	.45
1980	.78	.48	.50
1985	.80	.54	.54
1990	.78	.53	.50
1996	.78	.50	.53
Mean convergence-divergence per year	+.29	+ .23	- .08

Table A.37. Daily newspapers, Worldwide 44 (LTO = 27): Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	Pred.1	R ²	Pred.2	R ²
1950	.81***	-.68***	.82***	-.05	-.36**	-.38*	IDV	.68	INC	.76
1960	.75***	-.66***	.76***	-.04	-.37**	-.21	IDV	.58	INC	.65
1970	.81***	-.68***	.82***	-.05	-.36**	-.38	INC	.65	PDI (-)	.69
1975	.83***	-.65***	.68***	-.02	-.31*	-.06	INC	.68		
1980	.82***	-.65***	.62***	-.03	-.32*	-.03	INC	.66	PDI (-)	.70
1985	.83***	-.61***	.57***	-.05	-.32*	-.04	INC	.69		
1990	.83***	-.57***	.55***	-.10	-.28*	-.04	INC	.69		
1996	.80***	-.52***	.47***	-.10	-.28*	.07	INC	.64		

Table A.38. Daily newspapers, Developed 26 (LTO = 22): Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	Pred.1	R ²	Pred.2	R ²
1950	.69***	-.57***	.79***	-.15	-.52***	-.44*	IDV	.62		
1960	.58***	-.51***	.66***	-.11	-.58***	-.17	IDV	.43	UAI (-)	.55
1970	.62***	-.53***	.59***	-.10	-.51***	-.04	INC	.38		
1975	.64***	-.50***	.48**	-.11	-.46**	.07	INC	.41		
1980	.63***	-.48**	.33	-.11	-.48**	.11	INC	.40		
1985	.69***	-.47**	.30	-.13	-.44*	.08	INC	.48		
1990	.73***	-.41*	.26	-.20	-.37*	.08	INC	.55		
1996	.58***	-.28	.04	-.22	-.31	.27	INC	.34		

Table A.39. Daily newspapers, Europe 15: Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	Pred.1	R ²	Pred.2	R ²
1950	.82***	-.43	.68***	-.15	-.66***	-.26	INC	.68		
1960	.84***	-.48*	.64***	-.26	-.74***	-.17	INC	.71	UAI (-)	.84
1970	.78***	-.56*	.59*	-.28	-.75***	-.07	INC	.61	UAI (-)	.79
1975	.71***	-.61**	.51*	-.35	-.71***	-.04	UAI (-)	.51	INC	.74
1980	.66***	-.67***	.44 ^{ns}	-.31	-.70***	-.11	UAI (-)	.49	INC	.72
1985	.86***	-.64***	.39	-.27	-.63**	-.17	INC	.74	PDI (-)	.82
1990	.78***	-.55*	.39	-.37	-.56*	-.25	INC	.61		
1996	.58*	-.57*	.34	-.47*	-.59*	-.27	UAI (-)	.34		

Two other measurements are: (1) Sales of copies per 1,000 in 1996 (Euromonitor) for 36 countries¹; (2) “Read yesterday” data of 1996 for 31 countries (McCann Erickson and Nielsen & Roper Reports 1997)². Developed 26 is 25 countries for the Euromonitor data (Korea N/A) and 20 countries for the McCann data.

Table A.40. CVs Sales and Readership Newspapers 1996.

	Worldwide	Developed 26
Copies per 1,000	.72	.54
“Read yesterday”	.38	.31

Table A.41. Newspaper sales and readership worldwide, 1996: Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	Pred.1	R ²	Pred.2	R ²	Pred.3	R ²
Sales	.61***	-.64***	.47***	-.39**	-.42***	-.55***	PDI (-)	.41	UAI (-)	.52	MAS (-)	.58
							Predictor 4:		INC	.66		
Read	.48***	-.51***	.33	-.27	-.49***	-.12	PDI (-)	.26	UAI (-)	.41		

Table A.42. Newspaper sales and readership developed 26, 1996: Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	Predictor	R ²
Sales	.34*	-.51***	.26	-.46*	-.67***	-.48*	UAI (-)	.45
Read yesterday	.30	-.50*	.01	-.23	-.62***	.07	UAI (-)	.38

For Europe data are: Reader's Digest 1991: Newspapers, % read any yesterday; McCann Erickson 1996/97, % read yesterday; Eurobarometer Reports 40, 41, 43, 46, 50: % reading the news in the newspaper every day (1993/1994: 10 countries; 1995/96/98: 13 countries); IM (Initiative Media, M&M Europe): Press consumption, copies bought within publication period/100 adults (newspapers and magazines) 1993, 1994 and 1996

¹ Worldwide 44, minus Colombia, Costa Rica, Korea, Pakistan, Panama, Turkey and Uruguay.

² Countries are: Argentina, Austria, Belgium, Brazil, Chile, Colombia, Denmark, Ecuador, Finland, France, Germany, Greece, Indonesia, Ireland, Italy, Korea, Malaysia, Mexico, Netherlands, Norway, Peru, Philippines, Portugal, Singapore, Spain, Sweden, Switzerland, Thailand, Uruguay, UK, Venezuela.

Table A.43 CVs Newspaper readership, Europe 15		
	Press consumption	Newspapers, "read yesterday"
1991		.28
1993	.43	
1994	.46	
1996	.49	.33
Mean divergence per year	- 4.08	- 3.03

Table A.44 CVs Reading the news in the newspaper everyday.	
1993	.41
1994	.36 (10 countries)
1995	.37
1996	.37
1998	.38
1999	.37 (13 countries)
1995-1999: Stability	00

Table A.45 Newspapers: Income and cultural variables, Europe 15										
	INC	PDI	IDV	MAS	UAI	LTO	Pred.1	R ²	Pred. 2	R ²
M&M/IM: Press, copies/100 adults (Magazines and Newspapers)										
1993	.53*	-.70***	.23	-.21	-.59**	-.05	PDI (-)	.49		
1994	.53*	-.67***	.24	-.22	-.59*	-.01	PDI (-)	.46		
1996	.56*	-.66***	.22	-.15	-.57*	-.03	PDI (-)	.44		
Read yesterday: RD91 and McCann 1996										
Newsp 91	.61**	-.76***	.56*	-.25	-.84***	-.19	PDI (-)	.58	IDV	.74
Newsp 96	.17	-.76***	.04	-.25	-.60**	.04	PDI (-)	.58		
Eurobarometer: news in newspapers: everyday										
1993	.50	-.81***	.69*	-.10	-.79***	-.07	PDI (-)	.66	INC	.81
1994	.60*	-.83***	.70*	-.04	-.81***	-.02	PDI (-)	.69	INC	.86
1995	.48*	-.76***	.50*	-.27	-.76***	.16	PDI (-)	.58		
1996	.39	-.78***	.39	-.35	-.76***	.23	PDI (-)	.61	MAS (-)	.76
1998	.34	-.75***	.40	-.36	-.77***	.23	UAI (-)	.60		
1999	.42	-.76***	.39	-.26	-.70***	.15	PDI (-)	.58		

A2.5.1. Book readership

Data on readership over time are from the Reader's Digest Surveys 1970 and 1991: 8+ books read in past year (1970) and 12+ books read in past year (1991). Eurobarometer (in: Sociaal Cultureel Rapport 2000) also provides data on book reading (% answers "read book last week") for Europe (10 countries only). CV = .45.

Table A.46. CVs Heavy book readership, Europe 15	
1970 (8+ books read in past year)	.38
1991 (12 + books read in past year)	.49
Mean divergence per year	- 1.12

Table A.47. Heavy book readership, Europe 15: Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	Pred.1	R ²	Pred.2	R ²
Books 70: 8+	.53*	-.23	.58*	-.40	-.63**	-.31	IDV	.33		
Books 91: 12+	.40	-.31	.72***	-.35	-.68***	-.16	IDV	.52	MAS (-)	.67
Read last week 92	.57*	-.53	.81***	-.10	-.74**	-.35	IDV	.65		

In Eurobarometer readership of magazines is combined with newspaper readership. The percent answers "read magazine or newspaper last week" correlates with IDV ($r = .73^{**}$) and negatively with UAI ($r = -.78^{***}$) UAI (-) explains 60% of variance.

A2.6. Advertising expenditures per capita and by media

For total adspend per capita data, the Starch INRA Hooper reports are used of 1983 (data 1981) and 1989 (data 1988). Data of 1995 are from Adstats World Adspend Survey (Admap, February 1997 p 50). Data on Adspend by Media, the percents of total advertising expenditure by media, are from the Adspend databank (www.WARC.com/scripts/WAD_res.asp) of the World Advertising Research Center.

Table A.48. CVs Adspend per capita in US\$

Adspend	Worldwide 44	Developed 26	Europe 15
1981	1.08	.69	.56
1988	0.98	.69	.53
1995	0.82	.44	.40
Mean convergence per year	1.72	2.59	2.04

Table A.49. Advertising expenditures per capita: Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Adspend worldwide¹⁾										
1981	.86***	-.62***	.78***	-.04	-.40***	-.31	INC	.74	IDV	.77
1988	.85***	-.56***	.74***	.03	-.28*	-.20	INC	.72		
1995	.94***	-.64***	.68***	.07	-.29*	-.13	INC	.88	PDI (-)	.89
Adspend Developed 26										
1981	.74***	-.45*	.68***	-.13	-.49***	-.33	INC	.55		
1988	.76***	-.35*	.60***	.04	-.33*	-.10	INC	.57		
1995	.85***	-.42*	.46**	.03	-.45*	-.03	INC	.72		
Adspend Europe 15										
1981	.75***	-.51*	.43	-.32	-.55*	-.29	INC	.56		
1988	.75***	-.30	.33	-.15	-.34	-.14	INC	.56		
1995	.88***	-.51*	.33	-.02	-.47*	-.28	INC	.77		

¹⁾ 1981: 44 countries; 1988: 36 countries; 1995: 41 countries

The percents of total advertising expenditures by media give an impression of how media usage varies. Data 1988-1998 are of WARC Adspend databank. Data worldwide vary between 39 and 44 countries (LTO = 24). Data Developed 26 are 26 countries (LTO = 22), except for the years 1988-1992, for which data for Israel are not available. In Europe data on radio for 1988-1992 are not available for Sweden.

Table A.50. CVs Shares of media of total adspend, Worldwide 44				
Year ¹⁾	Newspapers	Magazines ²⁾	Television ³⁾	Radio ⁴⁾
1988	.44	.65	.56	.73
1989	.46	.63	.57	.73
1990	.44	.62	.54	.71
1991	.44	.62	.50	.72
1992	.45	.61	.47	.62
1993	.46	.59	.45	.62
1994	.44	.58	.45	.62
1995	.48	.60	.44	.59
1996	.44	.58	.44	.59
1997	.42	.57	.40	.58
1998	.42	.59	.41	.59
Mean convergence per year	.84	.84	2.44	1.74
¹⁾ 1988-1993: Israel and Pakistan N/A; 1997/1998: Chile and Ecuador N/A.; 1988: Panama N/A ²⁾ India, Philippines, Turkey and Uruguay N/A. ³⁾ 1998: Panama N/A. ⁴⁾ 1988-1992: Sweden N/A.				

Table A.51. CVs Shares of media of total adspend, Developed 26				
Year ¹⁾	Newspapers	Magazines	Television	Radio
1988	.39	.59	.63	.72
1989	.36	.54	.54	.69
1990	.37	.52	.53	.67
1991	.37	.52	.53	.65
1992	.38	.50	.50	.57
1993	.40	.47	.50	.63
1994	.40	.47	.50	.62
1995	.40	.49	.50	.60
1996	.39	.48	.46	.54
1997	.36	.49	.41	.53
1998	.35	.51	.40	.52
Mean convergence per year	.93	1.23	3.32	2.53
¹⁾ Israel data N/A. for 1988-1993				

Table A.52. CVs Shares of media of total adspend: Europe 15				
Year	Newspapers	Magazines	Television	Radio
1988	.39	.44	.78	.89
1989	.39	.37	.67	.79
1990	.39	.35	.62	.72
1991	.38	.35	.58	.62
1992	.39	.34	.54	.56
1993	.37	.31	.51	.61
1994	.36	.30	.46	.57
1995	.36	.31	.46	.56
1996	.37	.30	.46	.50
1997	.38	.31	.45	.49
1998	.38	.32	.44	.45
Mean convergence per year	.23	2.48	3.96	4.49

Table A.53. Newspaper share of total adspend 1988-1998: Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²	Pred. 3	R ²
Worldwide												
1981	.64***	-.49***	.57***	-.40**	-.52***	-.32*	INC	.40	UAI (-)	.57	MAS (-)	.65
1988	.53***	-.47***	.46***	-.43***	-.63***	-.21	UAI (-)	.40	MAS (-)	.55	INC	.69
1989	.51***	-.48***	.45***	-.33*	-.65***	-.19	UAI (-)	.43	PDI (-)	.54	MAS (-)	.60
1990	.48***	-.46***	.43***	-.38**	-.64***	-.15	UAI (-)	.41	MAS (-)	.52	INC	.63
1991	.51***	-.47***	.44***	-.36**	-.65***	-.13	UAI (-)	.42	INC	.54	MAS (-)	.65
1992	.50***	-.49***	.46***	-.34*	-.67***	-.14	UAI (-)	.45	PDI (-)	.57	MAS (-)	.63
1993	.46***	-.43***	.43***	-.34*	-.68***	-.10	UAI (-)	.46	MAS (-)	.54	INC	.64
1994	.43***	-.46***	.41***	-.33*	-.61***	.00	UAI (-)	.37	PDI (-)	.50	MAS (-)	.56
1995	.48***	-.45***	.45***	-.30*	-.62***	.10	UAI (-)	.38	PDI (-)	.50	MAS (-)	.55
1996	.44***	-.48***	.42***	-.31*	-.64***	-.07	UAI (-)	.41	PDI (-)	.53	MAS (-)	.59
1997	.48***	-.44***	.40***	-.24	-.67***	-.09	UAI (-)	.45	PDI (-)	.54		
1998	.49***	-.48***	.42***	-.28*	-.63***	-.11	UAI (-)	.40	PDI (-)	.53		
Developed 26												
1981	.68***	-.51***	.44*	-.53***	-.55***	-.36 ^{ns}	INC	.46	MAS (-)	.65	UAI (-)	.71
1988	.57***	-.63***	.35*	-.59***	-.71***	-.23	UAI (-)	.50	MAS (-)	.68	INC	.81
							<u>Pred. 4 & 5:</u>		PDI (-)	.85	IDV (-)	.90
1989	.48**	-.60***	.25	-.55***	-.70***	-.20	UAI (-)	.50	MAS (-)	.64	PDI (-)	.73
1990	.51***	-.62***	.27	-.53***	-.70***	-.16	UAI (-)	.48	MAS (-)	.62	PDI (-)	.72
1991	.48**	-.61***	.25	-.52***	-.71***	-.14	UAI (-)	.50	MAS (-)	.62	PDI (-)	.72
							<u>Pred. 4 & 5:</u>		IDV (-)	.77	INC	.84
1992	.45*	-.64***	.27	-.50***	-.72***	-.16	UAI (-)	.52	PDI (-)	.63	MAS (-)	.74
							<u>Pred. 4:</u>		IDV (-)	.79		
1993	.48**	-.61***	.30	-.46*	-.75***	-.12	UAI (-)	.56	PDI (-)	.64	MAS (-)	.72
1994	.42*	-.66***	.28	-.43*	-.65***	-.08	PDI (-)	.44	UAI (-)	.61	MAS (-)	.68
1995	.44*	-.66***	.30	-.41*	-.68***	-.07	UAI (-)	.46	PDI (-)	.64		
1996	.44*	-.67***	.30	-.41*	-.68***	-.09	UAI (-)	.46	PDI (-)	.65	MAS (-)	.71
1997	.44*	-.64***	.24	-.38*	-.70***	-.11	UAI (-)	.49	PDI (-)	.64	IDV (-)	.71
1998	.42*	-.67***	.26	-.40*	-.71***	-.14	UAI (-)	.50	PDI (-)	.67	IDV (-)	.75
Europe 15												
1981	.80***	-.46*	.57*	-.46*	-.64***	-.23	INC	.65	UAI (-)	.80	MAS (-)	.86
1988	.57*	-.70***	.29	-.55*	-.80***	-.14	UAI (-)	.64	MAS (-)	.77	INC	.85
							<u>Pred. 4:</u>		IDV (-)	.90		
1989	.56*	-.72***	.27	-.51*	-.80***	-.13	UAI (-)	.64				
1990	.56*	-.74***	.28	-.46*	-.80***	-.10	UAI (-)	.65				
1991	.51*	-.76***	.24	-.45*	-.80***	-.10	UAI (-)	.64				
1992	.48*	-.77***	.28	-.42	-.83***	-.14	UAI (-)	.69				
1993	.47*	-.78***	.31	-.37	-.83***	-.15	UAI (-)	.69				
1994	.46*	-.81***	.32	-.34	-.84***	-.13	UAI (-)	.70				
1995	.49*	-.82***	.32	-.32	-.85***	-.13	UAI (-)	.72				
1996	.53*	-.82***	.35	-.31	-.85***	-.14	UAI (-)	.72				
1997	.53*	-.82***	.34	-.27	-.85***	-.15	UAI (-)	.73				
1998	.53*	-.82***	.32	-.30	-.86***	-.16	UAI (-)	.73				

Table A.54. Magazines share of total adspend 1988-1998: Income and cultural variables												
	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²	Pred. 3	R ²
Worldwide												
1988	.42***	-.13	.48***	-.02	.08	-.36*	IDV	.23				
1989	.45***	-.21	.52***	-.02	.09	-.37*	IDV	.27	UAI	.37		
1990	.41***	-.22	.50***	-.03	.09	-.41*	IDV	.25	UAI	.34		
1991	.51***	-.24	.53***	-.03	.09	-.39*	IDV	.28	UAI	.39		
1992	.52***	-.26	.56***	-.05	.07	-.43*	INC	.32				
1993	.61***	-.30*	.60***	-.05	.07	-.47**	INC	.37				
1994	.60***	-.26	.63***	-.05	.03	-.38*	IDV	.40	UAI	.48		
1995	.58***	-.28*	.64***	-.06	.02	-.34*	IDV	.40	UAI	.48		
1996	.55***	-.25	.58***	-.03	.09	-.35*	IDV	.34	UAI	.45		
1997	.47***	-.19	.56***	.03	.16	-.33	IDV	.31	UAI	.46		
1998	.46***	-.19	.54***	-.04	.21	-.34*	IDV	.29	UAI	.47		
Developed 26												
1988	.29	.09	.33	-.09	.29	-.32	None					
1989	.24	.09	.28	-.11	.34*	-.34	None					
1990	.21	.12	.22	-.13	.35*	-.34	None					
1991	.29	.10	.25	-.13	.34*	-.34	None					
1992	.36*	.07	.28	-.15	.33	-.36*	None					
1993	.42*	-.04	.36*	-.16	.28	-.40*	INC	.17	UAI	.38		
1994	.42*	.03	.41*	-.17	.21	-.42*	INC	.18	UAI	.32	IDV	.45
1995	.39*	.02	.42*	-.16	.20	-.38*	IDV	.17	UAI	.33		
1996	.31	.03	.36*	-.13	.27	-.36*	None					
1997	.24	.03	.36*	-.13	.27	-.36*	None					
1998	.25	.03	.32	-.11	.33 ^{ns}	-.35	None					
Europe 15												
1988	.10	.57*	.27	.20	.49*	.04	PDI	.33				
1989	-.04	.66***	.12	.19	.62**	.11	PDI	.44				
1990	-.14	.71***	-.02	.17	.69***	.09	PDI	.50				
1991	-.05	.69***	-.00	.16	.69***	.13	PDI	.48				
1992	.03	.66***	.01	.14	.66***	.08	PDI	.44				
1993	.14	.55*	-.04	.13	.66***	.07	UAI	.44	IDV	.62		
1994	.20	.58*	.03	.09	.61**	.05	UAI	.37	IDV	.60		
1995	.14	.58*	.01	.10	.63**	.13	UAI	.39	IDV	.61		
1996	.17	.52*	.03	.10	.57*	.17	UAI	.33	IDV	.53		
1997	.09	.49*	.05	.07	.54*	.18	UAI	.29	IDV	.50		
1998	.13	.44*	.07	-.02	.52*	.12	UAI	.28	IDV	.49		

Table A.55. Television share of total adspend 1981-1998: Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²	Pred. 3	R ²
Worldwide												
1981	-.57***	.29*	-.60***	.14	.45***	.25	IDV (-)	.36	UAI	.45		
1988	-.75***	.57***	-.69***	.24	.45***	.43*	INC (-)	.56	MAS (-)	.62	IDV (-)	.67
1989	-.65***	.55***	-.61***	.20	.47***	.44*	INC (-)	.43	UAI	.51		
1990	-.63***	.54***	-.58***	.23	.47***	.40*	INC (-)	.40	UAI	.50		
1991	-.70***	.55***	-.61***	.22	.48***	.37*	INC (-)	.49	UAI	.58	MAS	.62
1992	-.72***	.56***	-.63***	.21	.51***	.39*	INC (-)	.52	UAI	.63	MAS	.67
1993	-.70***	.54***	-.62***	.23	.52***	.36	INC (-)	.49	UAI	.61	MAS	.66
1994	-.65***	.59***	-.63***	.22	.49***	.22	INC (-)	.43	UAI	.53	MAS	.59
1995	-.68***	.61***	-.64***	.22	.51***	.23	INC (-)	.46	UAI	.58	PDI	.64
							Pred. 4:		MAS	.67		
1996	-.68***	.62***	-.64***	.23	.49***	.29	INC (-)	.46	UAI	.57	MAS	.63
							Pred. 4:		PDI	.68		
1997	-.70***	.57***	-.63***	.18	.48***	.30	INC (-)	.49	UAI	.57		
1998	-.72***	.61***	-.66***	.18	.43***	.31	INC (-)	.51	PDI	.58	UAI	.64
Developed 26												
1981	-.72***	.32	-.52**	.34	.37*	.47*	INC (-)	.52	MAS	.73		
1988	-.74***	.58***	-.54***	.50***	.45*	.46*	INC (-)	.55	MAS	.75		
1989	-.67***	.61***	-.46**	.53***	.46**	.44*	INC (-)	.45	MAS	.69	PDI	.76
1990	-.67***	.61***	-.43*	.53***	.44*	.39*	INC (-)	.45	MAS	.68	PDI	.74
1991	-.69***	.61***	-.43*	.51***	.48**	.37*	INC (-)	.47	MAS	.69	PDI	.76
1992	-.70***	.63***	-.45*	.48**	.49**	.40*	INC (-)	.49	MAS	.67	PDI	.76
1993	-.72***	.61***	-.48**	.41*	.52***	.37	INC (-)	.52	MAS	.68	PDI	.76
1994	-.65***	.66***	-.48**	.38	.47	.33	PDI	.43	INC (-)	.64	MAS	.76
1995	-.66***	.65***	-.50***	.37*	.50***	.33	INC (-)	.43	PDI	.65	MAS	.76
1996	-.65***	.66***	-.50***	.39*	.50***	.34	PDI	.43	INC (-)	.65	MAS	.77
1997	-.66***	.67***	-.47**	.39*	.50***	.36*	PDI	.44	INC (-)	.68	MAS	.77
1998	-.64***	.70***	-.48**	.39*	.50***	.36*	PDI	.49	INC (-)	.69	MAS	.79
Europe 15												
1981	-.87***	.11	-.54*	.18	.25	.10	INC (-)	.76	MAS	.87		
1988	-.71***	.46*	-.34	.45*	.54*	.19	INC (-)	.51	MAS	.65		
1989	-.71***	.54*	-.27	.46*	.59**	.16	INC (-)	.50	MAS	.65		
1990	-.66***	.56*	-.18	.45*	.58*	.14	INC (-)	.44				
1991	-.65***	.57*	-.15	.43	.55*	.13	INC (-)	.42				
1992	-.67***	.61**	-.22	.39	.60**	.22	INC (-)	.44				
1993	-.66***	.61**	-.22	.29	.55*	.22	INC (-)	.43				
1994	-.67***	.62**	-.25	.26	.57*	.21	INC (-)	.45				
1995	-.69***	.64***	-.24	.24	.58*	.19	INC (-)	.48	PDI	.64		
1996	-.69***	.65***	-.27	.24	.60**	.17	INC (-)	.48	PDI	.65		
1997	-.71***	.66***	-.27	.24	.62**	.18	INC (-)	.50	PDI	.65		
1998	-.70***	.69***	-.27	.23	.64***	.15	INC (-)	.49	PDI	.67		

For radio, there are no significant relationships with income or culture for the groups Worldwide and Developed 26.

	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²
1988	-.64**	.24	-.75***	.22	.54*	.32	IDV (-)	.57
1989	-.58*	.15	-.65**	.24	.42	.31	IDV (-)	.42
1990	-.49*	.11	-.60*	.26	.39	.29	IDV (-)	.36
1991	-.54*	.21	-.57*	.29	.49*	.28	IDV (-)	.33
1992	-.45	.17	-.56*	.23	.52*	.19	IDV (-)	.31
1993	-.42	.26	-.42	.34	.55*	-.03	UAI	.31
1994	-.25	.16	-.33	.28	.45*	-.09	None	
1995	-.17	.16	-.36	.17	.45*	-.14	None	
1996	-.22	.22	-.36	.17	.50*	-.08	None	
1997	-.23	.30	-.39	.02	.53*	-.09	UAI	.28
1998	-.46*	.33	-.39	.30	.59**	.23	UAI	.35
Data 1988-1992 14 countries (Sweden N/A.)								

A3. STRUCTURE OF PRIVATE CONSUMPTION

Structure of private consumption is the private final consumption expenditure by type and purpose at current prices. Published data are the percentages of distribution of total private consumption by category: food/beverages/tobacco; clothing/footwear (= purchases of new and used clothing and footwear); fuel & power (= gross rent/fuel/electricity); health (= medical and health expenses); transport and communications (= personal costs of transport, telephones, and the like); leisure (= recreation, entertainment and education services); furniture/household equipment and operation; education (= government and private expenditures).

Data sources are: (1) World Bank Development Reports and World Bank Development Indicators Reports. (2) UN Statistical Yearbooks. (3) Eurostat. Data for member countries of the EU, from 1970-1996

World Bank Reports

Data 1980-1985 from the World Development Reports 1988-1992 and 1998 from the World Development Indicators report 2000. Worldwide for 37 countries (group 44 minus Colombia, Costa Rica, El Salvador, India, Malaysia, South Africa and Thailand).

Year	Food	Clothing	Fuel & Power	Health	Transport & Com	Education
Worldwide 37						
1980-85	.49	.35	.27	.42	.32	.37
1998	.37	.34	.63	.73	.51	.61
Mean con/divergence p yr	+1.90	+ .22	- 4.40	- 3.27	- 2.87	- 3.03
Developed 26						
1980-85	.43	.25	.25	.30	.18	.28
1998	.39	.32	.67	.76	.36	.52
Mean con/divergence p yr	+ .72	- 1.68	- 4.82	- 4.66	- 3.85	- 3.55
Europe 15						
1980-85	.34	.27	.19	.24	.14	.18
1998	.39	.27	.47	.73	.35	.55
Mean divergence per year	- .99	.00	- 4.58	- 5.16	- 4.62	- 5.17

UN Statistical Yearbooks

Data from two reports are used, from the 1961 report, data of 1950 (varying from 1948 to 1953) and 1960 (1959 or 1960); from the 1997 report, data for 1986 and 1994. Between 1963 and recent reports, labels are not identical. The 1961 report gives separate data for food and beverages and tobacco, while the 1997 report combines the data. For comparison, the two 'food' categories from the 1961 report are added into one category. While the 1997 report combines gross rent, fuel and power in the 1994 data, in the 1961 report this is split into rent/water and fuel/light. For comparison, the two are combined. The 1961 report published data on a limited number of countries, which are not the same as the countries covered in the 1997 report. The 1997 report (with data for 1986, 1993 and 1994) includes worldwide data for only 33 countries¹ of our group worldwide 44, but they are spread over all world regions. For only 21 countries it overlaps with the 1961 report. As a result, time series from 1950 onwards, for worldwide comparison are available only for 21 countries². From this, a group of developed countries is selected, consisting of 16 countries³ for which data can be compared from all reports.

Table A.58 CVs Structure of Consumption Worldwide 33						
Year	Food	Clothing	Fuel & Power	Health	Transport & Com	Leisure
1986	.36	.27	.37	.56	.25	.32
1994	.42	.33	.44	.55	.24	.31
Mean con/divergence per year	- 1.59	- 2.02	- 1.77	+ .22	+ .50	+ .39

Table A.59 CVs Structure of Consumption Worldwide 21						
Year	Food	Clothing	Fuel & Power ¹⁾	Health ²⁾	Transport&Com ³⁾	Leisure
1950	.21	.27	.37	.38	.49	
1960	.21	.26	.29	.46	.46	
1986	.32	.25	.35	.61	.20	.22
1994	.35	.30	.42	.56	.17	.26
Mean con/divergence p year	- .91	- .23	- .27	- .73	+ 1.48	- 1.71
¹⁾ 1950 & 1960: 20 countries (Denmark N/A); ²⁾ 1950 & 1960 17 countries (Denmark, Japan & Korea N/A) ³⁾ 1950 & 1960: 19 countries (Greece & Japan N/A)						

Table A.60 CVs Structure of Consumption Developed 16						
Year	Food	Clothing	Fuel & Power ¹⁾	Health ²⁾	Transport&Com ³⁾	Leisure
1950	.23	.23	.31	.41	.47	
1960	.21	.25	.25	.49	.45	
1986	.28	.21	.19	.64	.17	.16
1994	.31	.22	.25	.62	.14	.17
Mean con/divergence p year	- .59	+ .10	+ .44	- .77	+ 1.60	- .65
¹⁾ 1950 & 1960: 15 countries (Denmark N/A); ²⁾ 1950 & 1960 12 countries (Denmark, Japan & Korea N/A) ³⁾ 1950 & 1960: 15 countries (Japan N/A)						

¹⁾ Australia, Austria, Belgium, Canada, Colombia, Denmark, Ecuador, Finland, France, Germany, Greece, India, Ireland, Israel, Italy, Japan, Korea, Mexico, Netherlands, Norway, New Zealand, Peru, Philippines, Portugal, South Africa, Singapore, Spain, Sweden, Switzerland, Thailand, UK, USA, Venezuela.

²⁾ Australia, Austria, Belgium, Canada, Denmark, Ecuador, Finland, France, Greece, Ireland, Italy, Japan, Korea, Netherlands, Norway, Peru, South Africa, Sweden, Thailand, UK, USA.

³⁾ Australia, Austria, Belgium, Canada, Denmark, Finland, France, Ireland, Italy, Japan, Korea, Netherlands, Norway, Sweden, UK, USA

Table A.61 Structure of consumption 1986-1994, Worldwide 33 (LTO = 25): Income & Culture										
	CLI	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2 R ²
Food, beverages & tobacco										
1986	-.60***	-.79***	.63***	-.66***	.14	.12	.22	INC (-)	.63	
1994	-.54***	-.77***	.61***	-.59***	.17	.12	.12	INC (-)	.59	
Clothing & footwear										
1986		-.44***	.29*	-.40**	.05	.26	.25	INC (-)	.19	
1994		-.35*	.22	-.26	-.06	.24	.22	INC (-)	.12	
Fuel & Power										
1986	.68***	.80***	-.72***	.74***	-.16	-.35*	-.19	INC	.63	PDI (-) .72
1994	.75***	.80***	-.73***	.73***	-.24	-.27	-.25	INC	.63	PDI (-) .73
Health										
1986		.32*	.01	.25	.01	.16	.06	None		
1994		.33*	-.07	.28	.03	.18	-.03	None		
Transport & communications										
1986		.50***	-.61***	.54***	-.32*	-.23	-.47**	PDI (-)	.38	
1994		.22	-.31*	.19	-.19	-.26	-.07	None		
Leisure & recreation										
1986		.51***	-.34*	.26	-.14	-.44**	.05	INC	.26	
1994		.40*	-.21	.03	.04	-.36*	.07	INC	.16	

For the group of 21 countries worldwide calculations with data on health and medical care, do not result in significant correlations with income or the cultural variables.

The category clothing and footwear is not included in table A.63, as there are few significant correlations. The only significant correlations are with MAS (-): in 1950 and 1960 ($r = -.54^*$ and $-.61^{**}$) and in 1997 with MAS (+) ($r = .42^*$). For the years 1950 and 1960, predictor is MAS (-), for 1950: $R^2 = .29$ and for 1960: $R^2 = .37$.

Table A.62 Structure of consumption 1950-1994, Worldwide 21 (LTO = 17): Income and culture										
	CLI	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2 R ²
Food, beverages & tobacco										
1950	-.29	-.69***	.33	-.54***	.44*	.54**	.41*	INC (-)	.48	MAS .58
1960	-.41*	-.84***	.36	-.70***	.25	.43*	.42*	INC (-)	.71	
1986	-.55***	-.89***	.44*	-.78***	.08	.32	.33	INC (-)	.73	IDV (-) .81
1994	-.49*	-.82***	.39	-.69***	.08	.25	.19	INC (-)	.67	
Clothing & footwear										
1950		.24	-.40*	.34	-.27	-.21	-.48*	None		
1960		-.21	-.14	.01	-.35	-.03	-.24	None		
1986		-.51**	.31	-.50*	.21	.31	.05	INC (-)	.26	
1994		-.55**	.39*	-.48*	.15	.25	.08	INC (-)	.29	
Fuel & power										
1950	-.21	.13	.20	-.17	-.07	-.08	.09	None		
1960	-.07	.34	.13	.05	.02	.10	.18	None		
1986	.69***	.81***	-.65***	.77***	-.18	-.51**	-.35	INC	.66	
1994	.77***	.85***	-.61***	.69***	-.28	-.40*	-.32	INC	.73	CLI .78
Transport & communications										
1950		.53**	-.22	.51*	-.00	-.55**	-.31	UAI (-)	.31	
1960		.55**	-.32	.47*	-.01	-.57**	-.33	UAI (-)	.32	
1986		.56***	-.58***	.62***	-.22	-.53**	-.81***	IDV ¹⁾	.38	
1994		.13	-.41*	.41*	-.06	-.54**	-.49*	UAI (-)	.29	

¹⁾ If LTO is included, first predictor is LTO (-) ($R^2 = .65$); second predictor is PDI (-) ($R^2 = .75$)

Table A.63 Structure of consumption 1950-1994, Developed 16: Income and cultural variables

	CLI	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Food, beverages & tobacco											
1950	-.26	-.76***	.23	-.61**	.47*	.49*	.38	INC (-)	.57	MAS	.69
1960	-.21	-.86***	.11	-.64***	.29	.33	.36	INC (-)	.73		
1986	-.07	-.78***	.01	-.64***	.03	.07	.23	INC (-)	.61		
1994	-.01	-.65***	-.05	-.54*	-.04	-.03	.11	INC (-)	.42	IDV (-)	.58
Fuel & power											
1950	.09	.50*	.01	.28	-.04	-.31	.13	None			
1960	.02	.43	.27	.15	.08	-.02	.31	None			
1986	.29	.62***	-.42	.48*	-.25	-.50*	-.27	INC	.39		
1994	.45*	.62***	-.31	.29	-.43*	-.39	-.21	INC	.39	MAS (-)	.56
Health											
1950		.52*	.16	.00	.10	.45	-.06	None			
1960		.38	.07	-.16	.12	.47	-.02	None			
1986		.15	.49*	.16	.13	.47*	.22	None			
1994		.12	.45*	.15	.16	.46*	.17	None			
Transport & communications											
1950		.77***	-.14	.66***	-.00	-.56*	-.41	INC	.60		
1960		.66***	-.21	.40	-.03	-.52*	-.34	INC	.44		
1986		.55*	-.55*	.51*	-.38	-.61**	-.79***	LTO (-)	.62		
1994		.13	-.53*	.45 ^{ns}	-.17	-.59**	-.55*	UAI (-)	.35		

For Europe, Eurostat data are used for the period 1970-1996, from the following reports: 1970 & 1976: Eurostat Social Indicators 1960-1978, 8 countries¹; 1983 & 1984: Eurostat Yearbook 1995 (Eurostat Jaarboek '95), 10 countries²; 1985: Eurostat Yearbook 1997 (Eurostat Anuario '96), 13 countries³; 1986-1995: Eurostat yearbook 1997 (Eurostat Anuario '97), 13 countries; 1996: Eurostat Yearbook 1998/99, 13 countries. Percents of private consumption are for: Food, beverages and tobacco; Clothing and footwear; Rent, fuel & electricity; Medical care⁴; Transport and communications; Leisure, including entertainment, recreational and cultural services; Furniture, furnishings and household equipment. As data for 13 countries are only available from 1986 onwards, convergence-divergence is calculated for 1986-1996.

¹ Belgium, Denmark, Germany, France, Ireland, Italy, Netherlands, UK

² Portugal and Spain added

³ Austria, Finland and Sweden added.

⁴ Eurostat data on medical care are percents of private expenditures World bank and UN data are the percent expenditure on medical care of total consumption and include private and government health expenditures, such as those provided by national health plans, while. For comparison, the World bank and UN data give the better picture. However, data for the time-period 1950-1997 are only available for 11 countries.

Year	Food	Clothing	Fuel/power	Health	Transport/Com.	Leisure	Furniture
1970	.22	.10	.18	.61	.16	.22	.25
1976	.27 ¹⁾	.12 ¹⁾	.16 ¹⁾	.66 ¹⁾	.12 ¹⁾	.34 ¹⁾	.23 ¹⁾
1983	.31	.17	.33	N/A.	.15	.25	.16
1984	.38	.17 ³⁾	.33 ³⁾	N/A.	.15 ³⁾	.26 ³⁾	.16 ³⁾
1985	.33 ²⁾	.19	.31	.73	.13	.24	.14
1986	.24	.19	.28	.74	.13	.23	.15
1987	.24	.19	.29	.73	.14	.23	.14
1988	.22	.20	.26	.73	.14	.23	.14
1989	.22	.21	.26	.72	.13	.25	.15
1990	.22	.19	.27	.70	.12	.26	.16
1991	.21	.20	.28	.69	.12	.26	.17
1992	.21	.21	.30	.68	.11	.27	.17
1993	.21	.21	.30	.67	.12	.25	.17
1994	.21	.21	.29	.67	.12	.27	.17
1995	.22	.22	.31	.65	.12	.27	.17
1996	.22	.21	.31	.66	.12	.27	.16
Mean con/diverg./year	+.76	-.87	-.88	+.98	-.70	-1.35	-.57

¹⁾ 1970 & 1976 = 8 countries ²⁾ 1983/84/85 = 10 countries ³⁾ 1983/84 = 10 countries

	INC	PDI	IDV	MAS	UAI	LTO	Predictor	R ²
1970	-.92***	-.26	.06	.44	-.33	.01	INC (-)	.85
1976	-.91***	-.31	.06	.47	-.39	-.04	INC (-)	.84
1983	-.48	.36	-.82***	-.02	.46	.07	IDV (-)	.67
1984	-.34	.16	-.78***	-.11	.26	.07	IDV (-)	.61
1985	-.54 ^{ns}	.42	-.84***	-.03	.52	-.01	IDV (-)	.71
1986	-.66**	.42	-.77***	-.06	.50*	-.04	IDV (-)	.59
1987	-.69***	.40	-.78***	-.04	.48*	-.05	IDV (-)	.60
1988	-.65**	.42	-.79***	-.10	.51*	-.07	IDV (-)	.63
1989	-.66**	.39	-.80***	-.11	.48*	-.08	IDV (-)	.64
1990	-.62*	.39	-.81***	-.13	.48*	-.11	IDV (-)	.66
1991	-.67**	.39	-.79***	-.07	.49*	-.14	IDV (-)	.63
1992	-.66**	.33	-.77***	-.06	.44	-.19	IDV (-)	.59
1993	-.68**	.32	-.77***	-.07	.42	-.16	IDV (-)	.59
1994	-.72***	.33	-.76***	-.09	.41	-.14	IDV (-)	.58
1995	-.71***	.38	-.76***	-.12	.42	-.12	IDV (-)	.58
1996	-.69***	.43	-.79***	-.15	.49*	-.11	IDV (-)	.62

Table A.66 Europe: Structure of consumption: Clothing & footwear, Europe: Income and culture

	INC	PDI	IDV	MAS	UAI	LTO	Pred.1	R ²	Pred. 2	R ²	Pred. 3	R ²
1970	-.39	-.04	-.04	.15	.09	.87***	LTO	.75				
1976	-.33	.30	.12	.44	.43	.89***	LTO	.79	MAS	.93	PDI	.99
1983	-.28	.55 ^{ns}	-.43	.30	.69*	.40	UAI	.47				
1984	-.40	.50	-.47	.32	.64*	.34	UAI	.41				
1985	-.27	.12	-.44	.50*	.51*	.42	None					
1986	-.54*	.19	-.56*	.41	.56*	.40	UAI	.32				
1987	-.47 ^{ns}	.20	-.51*	.38	.56*	.45	UAI	.31				
1988	-.45	.25	-.49*	.38	.59*	.45	UAI	.35				
1989	-.48*	.26	-.52*	.38	.60*	.44	UAI	.36				
1990	-.45	.28	-.48*	.41	.63**	.46	UAI	.40				
1991	-.47	.29	-.52*	.39	.64**	.45	UAI	.42				
1992	-.43	.33	-.48*	.43	.65**	.43	UAI	.42				
1993	-.43	.34	-.49*	.49*	.66**	.35	UAI	.44				
1994	-.44	.32	-.51*	.47 ^{ns}	.63**	.32	UAI	.40				
1995	-.48*	.38	-.52*	.40	.66**	.30	UAI	.44				
1996	-.55*	.31	-.56*	.41	.59*	.26	UAI	.35				

For eleven countries in Europe, (Europe 15, minus Germany, Spain, Portugal and Switzerland) data on the percent expenditures on medical care of total consumption, are available for the period 1950-1997. Data 1950-1993 are from the UN Statistical yearbooks. Data 1997 are from World Development Indicators 1999. Between 1950 and 1993, expenditures diverge. CV in 1950 is .42 and in 1993 it is .61, so the mean divergence is 72 percent per year.

Table A.67: Europe 11, Expenditures medical care, % of total consumption: Income and culture

	INC	PDI	IDV	MAS	UAI	LTO	Predictor	R ²
1950	.12	.18	-.44	-.02	.72**	-.09	UAI	.51
1960	.04	.07	-.52	.03	.65*	-.03	UAI	.42
1986	-.21	.61*	.07	.01	.70**	.28	UAI	.49
1993	-.01	.64*	.02	.03	.76***	.26	UAI	.57
1997	.16	.69**	-.08	.00	.73**	-.09	UAI	.53

Table A.68. Europe: Structure of consumption: Rent, fuel & electricity: Income and culture

	CLI	INC	PDI	IDV	MAS	UAI	LTO	Pred.1	R ²	Pred.2	R ²	Pred.3	R ²
1970	.63*	.64*	-.09	-.04	-.70*	-.04	.15	None					
1976	.57	.79**	.11	-.23	-.53	.14	-.14	INC	.62				
1983	.71*	.56*	-.47	.71**	-.21	-.56*	-.27	IDV	.51				
1984	.69*	.59*	-.43	.73**	-.18	-.52	-.24	IDV	.54				
1985	.68***	.64**	-.45	.65**	-.32	-.61	-.00	IDV	.43	INC	.68		
1986	.74***	.59*	-.49*	.67**	-.33	-.68***	-.05	UAI (-)	.46				
1987	.71***	.85***	-.47 ^{ns}		.65**	-.32	-.65**	-.12	INC	.73	UAI (-)	.83	
1988	.73***	.79***	-.48*	.63**	-.37	-.71***	-.19	INC	.62	UAI (-)	.80		
1989	.72***	.79***	-.48*	.60*	-.40	-.71***	-.20	INC	.62	UAI (-)	.79		
1990	.74***	.76***	-.49*	.56*	-.45	-.70***	-.20	INC	.58	UAI (-)	.74		
1991	.78***	.80***	-.45*	.53*	-.52*	-.70***	-.14	INC	.65	UAI (-)	.80	MAS (-)	.89
1992	.81***	.83***	-.44	.51*	-.54*	-.69***	-.11	INC	.68	UAI (-)	.82	MAS (-)	.91
1993	.82***	.76***	-.42	.49*	-.54*	-.66**	-.10	INC	.58	MAS (-)	.76	UAI (-)	.86
1994	.83***	.71***	-.42	.50*	-.51*	-.64**	-.06	INC	.50	MAS (-)	.70		
1995	.81***	.73***	-.44	.57*	-.44	-.64**	-.04	INC	.54	UAI (-)	.71		
1996	.79***	.74***	-.44	.56*	-.43	-.61*	.00	INC	.55	UAI (-)	.71		

	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
1970	-.06	-.77*	.50	-.11	-.88***	.00	UAI (-)	.77		
1976	-.27	-.44	.65*	-.42	-.71*	-.15	UAI (-)	.50	PDI (+)	.88
1983	-.07	-.60*	.70*	.19	-.71*	.14	UAI (-)	.50		
1984	.00	-.54	.73*	.13	-.67*	.10	IDV	.53		
1985	.30	-.55*	.58*	-.23	-.70**	.27	UAI (-)	.49		
1986	.45	-.55*	.34	-.21	-.56*	.38	None			
1987	.43	-.74***	.29	-.17	-.66**	.32	PDI (-)	.54		
1988	.45	-.72***	.29	-.17	-.62*	.35	PDI (-)	.52		
1989	.42	-.71***	.13	-.12	-.50*	.28	PDI (-)	.50		
1990	.44	-.71***	.05	-.12	-.48	.23	PDI (-)	.50		
1991	.39	-.74***	-.00	-.08	-.46	.18	PDI (-)	.55		
1992	.33	-.71***	-.02	-.17	-.45	.21	PDI (-)	.51		
1993	.29	-.70***	-.02	-.16	-.44	.16	PDI (-)	.49		
1994	.28	-.71***	-.05	-.12	-.39	.17	PDI (-)	.51		
1995	.30	-.70**	.04	-.14	-.45	.18	PDI (-)	.48		
1996	.33	-.75***	.05	-.15	-.50	.14	PDI (-)	.56		

	INC	PDI	IDV	MAS	UAI	LTO	Predictor	R ²
1970	.66*	.15	-.19	-.63*	.23	.19	None	
1976	.74*	.47	-.27	-.37	.53	.04	INC	.55
1983	-.12	.75**	-.20	.10	.79***	.06	UAI	.63
1984	-.16	.75**	-.24	.09	.80***	.06	UAI	.65
1985	-.35	.71***	-.13	.20	.67**	-.15	PDI	.50
1986	-.32	.66**	-.03	.22	.61*	-.13	PDI	.44
1987	-.06	.61*	-.09	.25	.66**	-.04	UAI	.44
1988	.01	.50*	-.05	.33	.64**	-.01	UAI	.40
1989	-.03	.50*	-.05	.34	.61*	.09	UAI	.38
1990	-.03	.47 ^{ns}	-.01	.31	.61*	.15	UAI	.37
1991	.00	.50*	-.03	.36	.63*	.13	UAI	.39
1992	.04	.48*	-.02	.42	.64**	.13	UAI	.41
1993	.15	.42	-.03	.46	.62*	.12	UAI	.38
1994	.20	.36	.00	.54*	.58	.12	UAI	.34
1995	.11	.42	-.09	.49*	.65**	.13	UAI	.42
1996	.11	.42	-.11	.48*	.67**	.09	UAI	.44

For the category transport and communications, Eurostat data show only in 1970 a positive significant correlation with income ($r = .69^*$). For the years 1976, 1983, 1984 and 1985 only correlations are found with LTO (-) (1976: $r = -.63^*$; 1983: $r = -.72^{**}$; 1984: $r = -.79^{***}$; 1985: $r = -.53^*$).

A4. FOOD, BEVERAGES, ALCOHOL AND CIGARETTES

For the product category food and beverages no time series are available. Heterogeneity worldwide versus homogeneity in Europe can be demonstrated by comparing data for three regions worldwide, developed 26 and Europe 15 (data Euromonitor¹).

A4.1. Food

(1) All meat, fish and vegetables, fresh fruit, rice & bread in kg/cap; (2) Liquid milk (liters/cap), yogurt (kg/cap), cheese (kg/cap), chilled desserts (kg/cap), ice cream (liters/cap); (3) All frozen foods, canned food (key products) (kg/cap); (4) Biscuits, chocolate confectionery, sugar confectionery, all savory snacks, soups (all in kg/cap). Sales of soups refer to the total made-up volume of all industrially prepared soup (canned, dried and frozen).

	Worldwide	Developed 26	Europe 15
Meat	.52	.39	.37
Fish	1.01	1.07	.82
Vegetables	.61	.52	.47
Fruit	.58	.48	.31
Rice	1.59	1.84	.69
Bread	.88	.64	.34
Liquid milk	.76	.59	.44
Yogurt	.98	.74	.57
Cheese	.89	.61	.41
Chilled desserts	1.60	1.38	1.22
Ice cream	.83	.55	.45
Frozen foods	.96	.70	.53
Canned foods	.92	.72	.58
Biscuits	.74	.59	.53
Chocolate confectionery	1.02	.73	.59
Sugar confectionery	.74	.55	.53
Savory snacks	.77	.59	.52
Soup (processed)	1.21	.99	.82
Average	.92	.76	.57

¹ Data worldwide are for 39 countries and in some cases fewer, resulting from lacking data for a varying number of countries. Of the group worldwide 44, countries missing in all calculations are: Costa Rica, El Salvador, Pakistan, Panama and Uruguay. Calculations with LTO are for 25 or 26 countries.

Table A.72. Food products, Worldwide 39 (LTO = 26): Income, climate and cultural variables											
	INC	PDI	IDV	MAS	UAI	LTO	CLI	Pred.1	R ²	Pred.2	R ²
Meat	.39**	-.40**	.42***	-.02	-.14	-.48**	.45***	CLI	.20		
Fish	-.06	.40**	-.38**	-.00	.13	.58***	-.23	PDI	.16		
Fruit	-.03	-.11	-.03	.11	.19	.11	-.16	None			
Rice	-.37*	.55***	-.55***	.11	-.13	.51***	-.54***	PDI	.31	UAI (-)	.39
								Pred. 3:		IDV (-)	.48
Bread	.10	-.32*	.21	-.29*	.33*	-.33	.25	UAI	.11	PDI (-)	.26
								Pred. 3:		MAS (-)	.35
Liquid milk	.41***	-.63***	.59***	-.17	-.16	-.55***	.70***	CLI	.49		
Yogurt	.56***	-.34*	.44***	-.30*	.06	-.43*	.60***	CLI	.36		
Cheese	.54***	-.56***	.54***	-.20	.05	-.58***	.67***	CLI	.45		
Chilled dess.	.36*	-.22	.24	-.22	-.02	-.39*	.33*	INC	.13		
Ice cream	.64***	-.74***	.67***	-.15	-.39**	-.37*	.57***	PDI (-)	.55	UAI (-)	.62
								Pred. 3:		INC	.66
Frozen foods	.56***	-.66***	.70***	-.23	-.44***	-.54***	.67***	IDV	.49		
Canned foods	.42**	-.41**	.57***	-.03	-.17	-.36*	.60***	CLI	.36		
Biscuits	.42***	-.48***	.71***	-.05	-.27*	-.41*	.53***	IDV	.50		
Choc conf.	.69***	-.67***	.66***	-.03	-.28*	-.37*	.70***	CLI	.49	INC	.57
Sugar conf.	.57***	-.55***	.62***	-.19	-.19	-.32	.72***	CLI	.52		
Savory snacks	.51***	-.55***	.56***	-.07	-.12	-.17	.46***	IDV	.32		
Soup	.60***	-.45*	.49**	.10	.03	-.41*	.40*	INC	.37		

In regression analysis, CLI is included. If climate is the main predictor, this may mean that it is still a primary influence on food consumption. In such cases, in a second calculation, climate is excluded. After climate is excluded from the equation, IDV or PDI tend to become the main predictors, both related to climate. There are no significant correlations for "all vegetables". Calculations without CLI result in the following predictors: Meat: IDV ($R^2 = .17$); Liquid milk: PDI (-) ($R^2 = .39$); Yogurt: (1) INC ($R^2 = .31$), (2) MAS (-) ($R^2 = .40$); Cheese: PDI (-) ($R^2 = .31$); Chocolate confectionery: (1) INC ($R^2 = .48$), (2) PDI (-) ($R^2 = .56$); Sugar confectionery: IDV ($R^2 = .39$); Canned food: IDV ($R^2 = .33$).

LTO is included in regression analysis only when strongly significant correlations suggest it may be a predictor. Regression analysis including LTO was done for rice, fish, meat, cheese, biscuits and frozen food. Predictors are: Rice: IDV (-) ($R^2 = .55$); Fish: IDV (-) ($R^2 = .50$); Meat: LTO (-) ($R^2 = .23$); Cheese: CLI ($R^2 = .59$); Biscuits: IDV ($R^2 = .52$); Frozen food: IDV ($R^2 = .35$).

Table A.73 Food products, Developed 26 (LTO = 22): Income, climate and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	CLI	Pred. 1	R ²	Pred.2	R ²
Meat	-.05	-.20	.21	-.03	-.29	-.48*	-.18	None			
Fish	-.09	.43*	-.56***	-.00	.35*	.69***	-.27	IDV (-)	.31		
Fruit	-.33 ^{ns}	.04	-.21	.11	.18	-.01	-.44*	CLI (-)	.19		
Rice	-.05	.40*	-.63***	.14	.14	.80***	-.43*	IDV (-)	.39		
Bread	-.20	-.24	.08	-.16	.28	-.48*	-.04	None			
Liquid milk	-.01	-.47**	.44*	-.30	-.23	-.54***	.59***	CLI	.35		
Yogurt	.27	.03	.20	-.37*	.06	-.35	.38*	None			
Cheese	.20	-.35*	.40*	-.35*	.05	-.55***	.53***	CLI	.28		
Chilled dess.	.20	-.03	.09	-.26	-.03	-.35	.18	None			
Ice cream	.31	-.62***	.56***	-.24	-.61***	-.23	.26	PDI (-)	.39	UAI (-)	.54
Frozen fds	.26	-.51**	.57***	-.35*	-.55***	-.52**	.50**	IDV	.32	UAI (-)	.45
Canned fds	.05	-.16	.43*	-.07	-.19	-.31	.42*	IDV	.18		
Biscuits	.06	-.29	.66***	-.05	-.44*	-.39*	.29	IDV	.44		
Choc conf.	.48**	-.56***	.55***	-.04	-.40*	-.30	.55***	PDI (-)	.31		
Sugar conf.	.26	-.35*	.50**	-.18	-.34*	-.26	.55***	CLI	.30		
Savory sn	.17	-.38*	.41*	-.01	-.19	-.09	.12	IDV	.16		
Soup	.48*	-.30	.34	.11	.06	-.37	.20	None			

In the group developed countries, climate plays a lesser role than worldwide. For only four categories it is a predictor, for fruit (negative), milk, cheese and sugar confectionery (positive). If climate is excluded, the results are: milk: predictor is PDI (-) ($R^2 = .22$); sugar confectionery: IDV ($R^2 = .25$) No predictors for fruit and cheese. Regression analysis including LTO was done for bread, rice, meat, fish, milk, cheese and frozen food. Predictors are: Bread: LTO (-) ($R^2 = .23$); Rice: (1) LTO ($R^2 = .64$), (2) IDV (-) ($R^2 = .78$); Meat: LTO (-) ($R^2 = .23$); Fish: (1) IDV (-) ($R^2 = .52$), (2) LTO ($R^2 = .65$), (3) UAI ($R^2 = .73$); Milk: Predictor remains CLI; Cheese: predictor remains CLI; Frozen food: (1) LTO (-) ($R^2 = .27$), (2) UAI (-) ($R^2 = .43$).

Table A.74. Food products, Europe 15: Income, climate and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	CLI	Predictor	R ²
Meat	-.03	-.26	-.25	.10	-.02	-.32	.13	None	
Fish	-.54*	.51*	-.74***	-.38	.50*	-.05	-.33	IDV (-)	.54
Fruit	-.08	.28	-.50*	.35	.66***	.38	-.73***	CLI (-)	.54
Rice	-.51*	.20	-.82***	-.02	.40	.12	-.45*	IDV (-)	.66
Bread	-.27	.48*	-.32	-.08	.33	-.02	-.42	None	
Liquid milk	-.04	-.40	.06	-.36	-.51*	-.25	.68***	CLI	.46
Yogurt	.31	.15	.14	-.29	.10	-.12	-.01	None	
Cheese	.63**	-.15	.52*	-.25	-.23	-.04	.39	INC	.40
Chilled dess.	.28	.02	.15	-.20	-.09	-.48*	.02	None	
Ice cream	.34	-.57*	.45*	-.49*	-.76***	-.20	.92***	CLI	.84
Frozen fds	.08	-.33	.45*	-.22	-.69***	-.35	.40	UAI (-)	.48
Canned fds	-.09	.18	.35	.17	-.06	.09	.06	None	
Biscuits	-.09	-.03	.57*	.11	-.44 ^{ns}	.09	-.09	IDV	.32
Choc conf.	.51*	-.45*	.39	.21	-.51*	.18	.23	None	
Sugar conf.	.25	-.29	.59*	-.07	-.51*	.11	.38	IDV	.34
Savory sn ¹⁾	.40	-.42	.50*	-.29	-.57*	-.06	.51*	UAI (-)	.32
Soup ²⁾	.23	-.04	-.28	.33	.33	-.17	-.46	None	

¹⁾ Data available for only 13 countries; ²⁾ 10 countries

For Europe, regression analysis was done excluding CLI for ice cream, milk and fruit.

Results: Ice cream: predictor is UAI (-) ($R^2 = .57$); Milk, fruit: no predictor.

A few processed food categories are further analyzed for Europe. Data are from “Food for Thought”, a data collection company and provided by Van den Bergh & Jurgens, Unilever’s food company. Data are of 1992 and 1997 for 15 countries and of 1985 and 1990 for 10 countries¹ only. Other data are drawn from the Eurostat 1980 report “Social Indicators 1960-1975 (8 countries²). Data on fruit, biscuits, frozen food, jams & marmalades are also drawn from the Reader’s digest reports of 1970 and 1991. Data are from different sources and collected with different techniques, so results of comparison must be viewed as indicative only. Because of incomparability, means of convergence are not calculated for the full time-spans. To compare coefficients of variation for liquid milk, they are calculated for the 8 countries for which data are available of all years: Germany, France, Italy, Netherlands, Belgium, UK, Ireland and Denmark. Correlation and regression analysis for liquid milk is done only for these 8 countries. For ice cream, calculations for all countries available are presented, which is 10 countries in 1985 and 1990, and 15 countries in 1992 and 1997. It is noted, that data on icecream from Food for Thought are different from those by Euromonitor. While the results of Euromonitor data on ice cream deliver consistent negative correlations with uncertainty avoidance, the results of the Food for Thought data are correlations with individualism and climate.

Table A.75. CVs Milk and Ice cream, liters/capita - Europe 8			
	Milk	Ice cream	
1970	.47		
1973	.42		
1975	.40		
1976	.38		
1977	.38		
1970-1977:	+ 2.74	mean convergence per year	
1985	.32	.22	
1990	.31	.25	
1992	.32	.27	
1997	.34	.27	
1985-1997:	- .49	mean divergence per year - 1.54 mean divergence per year	

¹ Europe 15 without: Austria, Finland, Norway, Sweden and Switzerland.

² Germany, France, Italy, Netherlands, Belgium, UK, Ireland, Denmark.

Table A.76. Milk and Ice cream, Europe: Income, climate and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	CLI	Pred. 1	R ²	Pred. 2	R ²	Pred. 3	R ²
Milk (8 countries)													
1970	-.37	-.69*	.01	-.16	-.77*	-.11	.66*	UAI (-)	.60				
1973	-.46	-.66*	.10	-.10	-.76*	-.02	.61	UAI (-)	.58				
1975	-.44	-.68*	.18	-.10	-.81**	-.03	.61	UAI (-)	.65				
1976	-.42	-.68*	.16	-.12	-.82**	-.06	.62*	UAI (-)	.66				
1977	-.41	-.72*	.12	-.16	-.83***	-.11	.62*	UAI (-)	.69				
1985	-.22	-.69*	.22	-.10	-.88***	-.41	.51	UAI (-)	.77				
1990	-.49	-.64*	.18	.13	-.80***	-.36	.48	UAI (-)	.65				
1992	-.60	-.65*	.17	.08	-.81***	-.29	.49	UAI (-)	.66	INC (-)	.87	LTO (-)	.99
1997	-.40	-.65*	.11	.10	-.79***	-.23	.50	UAI (-)	.63				
Ice cream ¹⁾													
1985	.57*	-.59*	.80***	.29	-.62*	-.06	.51	IDV	.64				
1990	.50	-.37	.74**	.41	-.44	-.04	.34	IDV	.55				
1992	.47*	-.32	.46*	-.31	-.46*	-.00	.61**	CLI	.37				
1997	.20	-.23	.39	-.38	-.43	-.04	.63**	CLI	.40				

¹⁾ 1985-1990 = 10 countries; 1992-1997 = 15 countries

Data on frozen food products are from the Reader's Digest Surveys 1970 and 1991 ("Food shoppers usually have in the home"), Food for Thought data (volume/capita sales), and Euromonitor, frozen ready meals.

Table A.77. CVs Frozen foods, Europe 15

	1970	1991	1992	1997
Frozen fish or meat	.67			
Frozen vegetables	.85	.37		
Frozen food			.33	.31
Frozen ready meals		.40		1.06

Table A.78. Frozen foods, Europe 15: Income, climate and cultural variables

Frozen	INC	PDI	IDV	MAS	UAI	LTO	CLI	Pred. 1	R ²	Pred. 2	R ²
Fish/meat 70	.60**	-.37	.01	-.62**	-.52*	-.02	.47*	MAS (-)	.39	INC	.57
Vegetables 70	.74***	-.50*	.36	-.45*	-.70***	.06	.54*	INC	.55	UAI (-)	.69
Vegetables 91	.46*	-.65***	.55*	-.39	-.81***	-.18	.78***	UAI (-)	.65		
Food 92	.33	-.45*	.61**	-.20	-.77***	-.22	.46*	UAI (-)	.60		
Food 97	.30	-.43	.64***	.30	-.77***	-.37	.69***	UAI (-)	.60		
Ready meals 97	.22	-.31	.41	-.43	-.62**	-.27	.44	UAI (-)	.38		

Table A.79. Correlations ownership deep freezers and frozen foods, Europe 15

Deep Freezers	1970	1991	1997
Frozen fish 1970	.86***		
Frozen vegetables 1970	.74***		
Frozen food 1991		.66***	
Frozen food 1997			.29
Frozen meals 1997			.34

Next tables are for fresh fruit, packaged biscuits, fresh fish, and a mixed category of jams/marmalade (Reader's Digest 1970/91), preserves (Food for Thought) and jams/preserves combined (Euromonitor). Reader's Digest: "Food shoppers usually have in the home". Food for Thought: volume per capita sales. Biscuits 1997: Euromonitor. In

regression analysis for fresh fruit, jams/preserves and fish CLI is included because of presumed relationship with climate.

Table A.80. CVs Various food products, Europe 15				
	1970	1991	1992	1997
Fresh apples	.27			
Fresh oranges	.19			
Fresh fruit			.42	.37
Packaged biscuits	.34	.17	.42	.39
Fish			.46	.46
Jams/preserves	.37		.37	.36

Table A.81. Various food products, Europe 15: Income, climate and cultural variables													
	INC	PDI	IDV	MAS	UAI	LTO	CLI	Pred.1	R ²	Pred.2	R ²	Pred.3	R ²
Fr Apples 70	.56*	-.00	.79***	.11	-.27	-.23	.11	IDV	.63				
Fr Oranges 70	.50*	.37	.51*	-.39	-.06	.06	.08	IDV	.26	PDI	.52	MAS (-)	.70
Fresh Fruit 92	.01	.27	-.27	.36	.58*	.32	-.62**	CLI (-)	.38				
Fresh Fruit 97	.04	.20	-.31	.43	.57*	.23	-.65***	CLI (-)	.43				
Biscuits 70	.13	.10	.70***	-.13	-.41	-.22		IDV	.50				
Biscuits 92	-.20	-.14	.44 ^{ns}	.57*	-.33	.17		MAS	.32	UAI (-)	.56	PDI	.73
Biscuits 97	-.08	-.18	.48*	.52*	-.40	-.06		MAS	.27	UAI (-)	.56	PDI	.74
Biscuits 97	-.06	-.03	.56*	.11	-.44 ^{ns}	.08		IDV	.32				
Fish 92	-.48*	.65***	-.64***	-.43	.48*	.03	-.36	PDI	.42	IDV (-)	.67	UAI (-)	.88
Fish 97	-.54*	.66***	-.65***	-.40	.52*	.12	-.40	PDI	.44	IDV (-)	.70	UAI (-)	.87
Jams 70	.42	-.41	.78***	.08	-.74***	.14	.35	IDV	.60	UAI (-)	.73		
Preserves 92	.38	-.57*	.02	-.05	-.23	-.27	.57*	PDI (-)	.33				
Preserves 97	.45*	.59**	.04	.02	-.28	-.27	.59**	CLI	.35				

A4.2. Beverages

All data for beverages are of Euromonitor 1997. For the groups worldwide (38 countries)¹, developed 26 and Europe 15, consumption of: Tea (kg/cap), coffee (kg/cap), beer (ltrs/cap), total soft drinks (carbonated/concentrated drinks, mineral water and fruit juices) in ltrs/cap; mineral water (ltrs/cap), carbonated/concentrated drinks (ltrs/cap) and fruit juices (ltrs/cap).

Table A.82. CVs Various beverages three country clusters, 1996			
	Worldwide	Developed 26	Europe 15
Soft drinks	.58	.37	.29
Carbonated drinks	.59	.49	.38
Fruit juices	.92	.70	.45
Mineral water	1.24	1.00	.83
Tea	1.34	1.32	1.60
Coffee	.82	.62	.50
Beer	.78	.66	.57
Average	.90	.74	.66

¹ Worldwide 44, minus Costa Rica, El Salvador, Pakistan, Panama and Uruguay. Soft drinks, Israel N.A. LTO = 26 countries. For developed 26, LTO = 22 countries

Table A.83. Various beverages, three country clusters: Income, climate and cultural variables												
INC	CLI	PDI	IDV	MAS	UAI	LTO	Pred.1	R ²	Pred.2	R ²	Pred.3	R ²
Worldwide												
Soft drk	.77***	.47***	-.52***	.64***	.29*	.05	-.41	INC	.59	MAS	.68	
Carb.drk	.55***	.34*	-.43***	.48***	.31*	-.14	-.26	INC	.30	MAS	.39	
Fruit jce	.61***	.44***	-.63***	.62***	-.01	-.21	-.23	PDI (-)	.40	INC	.47	
Min w	.53***	.29*	-.20	.36*	.20	.33*	-.30	INC	.28	UAI	.49	
Tea	.11	.23	-.28*	.30*	.09	-.38**	-.15	UAI (-)	.15			
Coffee	.68***	.70***	-.50***	.43***	-.32*	-.20	-.39*	CLI	.49	INC	.56	IDV (-) .63
Beer	.49***	.53***	-.63***	.52***	.07	-.18	-.38*	PDI (-)	.39			
Developed 26												
Soft drk	.59***	.05	-.24	.58***	.38*	-.05	-.27	INC	.34	MAS	.48	IDV .58
Carb.drk	.51***	.11	-.40*	.50***	.38*	-.41*	-.11	INC	.26			
Fruit jce	.38*	.12	-.51***	.55***	.02	-.36*	-.06	IDV	.30			
Min w	.34*	-.01	.13	.19	.28	.36*	-.23	None				
Tea	-.10	.09	-.25	.23	.15	-.42*	-.06	UAI (-)	.18			
Coffee	.52***	.60***	-.37*	.21	-.40*	-.32	-.32	CLI	.35	INC	.46	IDV (-) .62
Beer	.31	.37*	-.64***	.42*	.08	-.33*	-.35	PDI (-)	.42			
Europe 15												
Soft drk	.48*	-.53*	.18	.21	.78***	.38	.13	MAS	.60	INC	.73	CLI .83
Carb. drk	.37	.06	-.50*	.37	.37	-.47*	.13	None				
Fruit jce	.41	.62**	-.47*	.42	-.39	-.48*	.00	CLI	.38			
Min w	.29	-.64***	.56*	-.10	.57*	.73***	.04	UAI	.53	INC	.75	MAS .84
Tea	-.22	.14	-.31	.36	.29	-.53*	-.03	UAI (-)	.29			
Coffee	.58*	.55*	-.39	.09	-.37	-.22	-.06	INC	.33	MAS (-)	.55	
Beer	.10	.27	-.57*	-.05	.06	-.29	-.02	PDI (-)	.32			

Reader's Digest Reports (RD): 1970: Soft drink taken in the past 7 days; Drinks taken in the past year: mineral spring water. 1991: Drinking almost every day: mineral water.

Food for Thought data (UN): All soft drinks and mineral water, ltrs/cap, 1992 and 1997.

Euromonitor 1997 (EM): data 1996: all soft drinks and mineral water, ltrs/cap.

EMS: 1995: mineral water, normally in the home; 1997 and 1999: mineral water and still mineral water, normally in the home.

Table A.84. CVs Soft drinks, Europe 15,	
Coefficient of variation	
Soft drinks (all)	
RD 1970	.25
UN 1992	.31
EM 1996	.29
UN 1997	.30
Mineral water	
RD 1970	.65
RD 1991	.72
UN 1992	.88
EM 1996	.83
UN 1997	.84
EMS: mineral water in the home	
1995	.21
1997	.23
1999	.20
EMS: still mineral water in the home	
1997	.49
1999	.50
No convergence-divergence calculated because of incomparability of data.	

Table A.85. Soft drinks and mineral water, Europe 15: Income, climate and cultural variables											
	INC	CLI	PDI	IDV	MAS	UAI	LTO	Pred.1 R ²	Pred.2 R ²	Pred.3 R ²	
Soft drinks, all											
1970	.87***	.44 ^{ns}	-.41	.61**	-.10	-.50*	-.01	INC	.76		
1992	.16	-.46*	.23	.19	.66***	.41	.08	MAS	.43		
1996	.21	-.53*	.18	.21	.78***	.38	.11	MAS	.60		
1997	.15	-.57*	.39	.09	.66***	.50*	.04	MAS	.44	PDI	.60
Mineral water											
1970	.31	-.32	.32	-.21	.24	.46*	-.01	None			
1991	.21	-.49*	.32	-.05	.53*	.57*	-.09	UAI	.32	INC	.57
1992	-.01	-.65***	.49*	-.06	.58*	.66***	.08	UAI	.44	MAS	.63
1996	.04	-.64***	.56*	-.10	.57*	.73***	.05	UAI	.53	MAS	.69
1997	-.07	-.71***	.60**	-.12	.55*	.72***	.08	UAI	.52	MAS	.66
EMS: mineral water normally in the home											
1995	.38	-.43	.13	-.05	.36	.34	-.22	None			
1997	.28	-.44 ^{ns}	.20	-.14	.29	.44 ^{ns}	-.25	None			
1999	.30	-.41	.20	-.14	.25	.40	-.19	None			
EMS: still mineral water normally in the home											
1997	-.49*	-.71***	.88***	-.22	.29	.75***	.08	PDI	.77	MAS	.86
1999	-.45*	-.71***	.87***	-.22	.33	.76***	.04	PDI	.75	MAS	.87

A4.3. Alcohol and cigarettes

Table A.118 shows that in 1996, for cigarettes, the CV is much larger worldwide (.52) than in Europe (.31). For Europe 15, time series are used to calculate convergence-divergence. Data Eurostat Yearbooks 1995 and 1998/99: Consumption of cigarettes (numbers per person per year, 1983-1997) and alcohol (liters per person per year, 1983-1995).

Table A.86. CVs Cigarettes and Pure Alcohol: Europe 15

Year	Cigarettes	Alcohol
1983	.27	.33
1984	.28	.31
1985	.29	.30
1986	.27	.27
1987	.27	.27
1988	.26	.25
1989	.23	.25
1990	.24	.24
1991	.24	.24
1992	.24	.24
1993	.27	.24
1994	.27	.24
1995	.27	.24
1996	.28	
1997	.28	
Mean divergence per year:	.26	Mean convergence per year: 2.27

Table A.87. Cigarettes 1983-1997, Europe 15: Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	Predictor	R ²
1983	-.05	-.10	.09	.74***	.06	.31	MAS	.55
1984	-.04	-.01	.01	.75***	.14	.19	MAS	.57
1985	-.05	-.03	-.04	.79***	.16	.14	MAS	.63
1986	-.01	-.09	-.05	.75***	.09	.14	MAS	.56
1987	-.01	-.08	-.16	.69***	.11	.13	MAS	.48
1988	.17	-.01	-.12	.71***	.16	.13	MAS	.51
1989	.12	.03	-.08	.70***	.19	.20	MAS	.49
1990	.05	.08	-.11	.67***	.21	.21	MAS	.46
1991	-.05	.12	-.18	.65***	.29	.25	MAS	.42
1992	-.10	.23	-.17	.56*	.33	.28	MAS	.32
1993	-.11	.23	-.09	.62**	.39	.19	MAS	.39
1994	-.04	.17	-.20	.65***	.33	.20	MAS	.42
1995	.01	.16	-.17	.66***	.27	.08	MAS	.43
1996	.02	.11	-.15	.65***	.21	.04	MAS	.42
1997	-.09	.10	-.19	.66***	.24	.08	MAS	.44

Table A.88. Pure alcohol 1983-1995, Europe 15: Income and cultural variables

	CLI	INC	PDI	IDV	MAS	UAI	LTO	Predictor	R ²
1983	-.89***	-.48*	.61**	-.43	.35	.73***	.07	UAI	.53
1984	-.90***	-.46*	.61**	-.41	.40	.73***	.05	UAI	.53
1985	-.90***	-.48*	.61**	-.44 ^{ns}	.40	.73***	.03	UAI	.53
1986	-.85***	-.39	.56*	-.37	.40	.67***	-.00	UAI	.45
1987	-.83***	-.37	.56*	-.37	.42	.70***	-.01	UAI	.49
1988	-.81***	-.19	.48*	-.29	.47*	.61**	.02	UAI	.37
1989	-.80***	-.21	.45*	-.35	.47*	.61**	-.04	UAI	.37
1990	-.78***	-.21	.43	-.31	.51*	.59**	-.05	UAI	.35
1991	-.82***	-.28	.41	-.44*	.49*	.61**	-.00	UAI	.38
1992	-.79***	-.28	.41	-.37	.48*	.58*	-.02	UAI	.34
1993	-.79***	-.31	.37	-.34	.53*	.54*	-.01	UAI	.29
1994	-.77***	-.14	.36	-.32	.51*	.50*	-.03	None	
1995	-.73***	-.13	.35	-.35	.47*	.49*	-.07	None	

If climate is included in regression analysis, it becomes the first predictor.

A5. CONSUMER ELECTRONICS

A5.1. The communication means of the new economy

Data World Bank World Development Indicators Reports 1999 and 2000. Average CVs for six categories in 1998. (1) Fax machines/1,000 people; Telephone main lines per 1,000 people; (3) Mobile phones/1,000; (4) Cable subscribers per 1,000; (5) Personal Computers/1,000; (6) Internet hosts per 10,000 population.

Table A.89 CVs Communication means of the new economy in 1998			
	Worldwide 44	Developed 26	Europe15
Fax machines	1.13	.77	.48
Telephone main lines	.64	.26	.17
Mobile phones	.93	.53	.52
Cable subscribers	1.11	.80	.74
Personal computers	.88	.47	.35
Internet hosts	1.53	1.03	.97
Average 5 categories 1997 (fax96)	1.04	.64	.54

Urbanization and population density were included in the calculations, but no relationship was found. For personal computers, mobile phones and internet hosts data are available for the three country groups for 1996, 1997 and 1998, and for the Internet also for early 2000. For these convergence is calculated.

To investigate product constellations, mobile phones are correlated with main telephone lines and Internet with PC ownership, all data of 1998. The various communication means of the new economy are strongly correlated with each other.

Table A.90 CVs Means of the new economy: Information technology 1996-1999/2000				
		Worldwide	Developed 26	Europe 15
Mobile phones	1996	1.05	.68	.77
	1997	.94	.55	.57
	1998	.93	.53	.52
Mean convergence per year		3.81	7.35	10.8
PCs	1996	.93	.56	.47
	1997	.88	.49	.39
	1998	.88	.47	.35
Mean convergence per year		1.79	5.36	8.51
Internet	1997	1.45	.96	.96
	1998	1.53	1.03	.97
	1999	1.52	1.03	.93
	2000	1.50	1.02	.80
Mean con/divergence per year		- .83	- 1.47	+ 4.17

Table A.91. Product constellations of the new economy in 1998

	Main tel. lines	Mobile phones	PCs	Internet hosts	Cable
Worldwide					
Main telephone lines		.78***	.90***	.68***	.65***
Mobile phones	.78***		.81***	.69***	.39**
Personal computers	.90***	.81***		.77***	.67***
Internet hosts	.68***	.69***	.77***		.49***
Developed 26					
Main telephone lines		.44*	.78***	.55***	.44*
Mobile phones	.44**		.58***	.54***	.01
Personal computers	.78***	.58***		.68***	.47**
Internet hosts	.55***	.54***	.68***		.31
Europe 15					
Main telephone lines		.49*	.86***	.53*	.52*
Mobile phones	.49*		.60**	.82***	.07
Personal computers	.86***	.60**		.64***	.71***
Internet hosts	.53*	.82***	.64***		.28

Because of the strong relationships between telephone main lines and mobile phones and between the internet and PC ownership, a separate regression analysis is done including telephone main lines (TL) in the calculations for mobile phones and PC ownership (PC) in the calculations for the internet. This results in the following explaining variables.

Worldwide, if telephone mainlines and PCs are included

Mobile phones: predictors are: 1996: (1) TL96 ($R^2 = .56$); (2) UAI (-) ($R^2 = .62$); 1997: TL97 ($R^2 = .62$); 1998: TL98 ($R^2 = .61$)

Internet hosts: predictors are: 1997: (1) PC97 ($R^2 = .67$); (2) INC ($R^2 = .72$); 1998: PC98 ($R^2 = .59$); 1999: (1) PC98 ($R^2 = .61$); (2) MAS (-) ($R^2 = .64$).

Table A.92 Communication means of the new economy Worldwide 44: Income and culture

	INC	PDI	IDV	MAS	UAI	LTO	Pred.1 R ²	Pred.2 R ²	Pred.3 R ²
Faxes 96	.85***	-.47***	.59***	.18	-.23	.08	INC .72		
Faxes 98	.78***	-.44***	.56***	.22	-.17	.16	INC .61		
Mobile 96	.70***	-.59***	.57***	-.22	-.42***	-.13	INC .49	MAS (-).56	UAI (-).61
Mobile 97	.76***	-.58***	.56***	-.18	-.37**	-.08	INC .58	MAS (-).63	
Mobile 98	.76***	-.61***	.63***	-.08	-.35**	-.06	INC .58		
Cable 97	.69***	-.57***	.63***	-.11	-.23	-.16	INC .47		
Cable 98	.69***	-.52***	.57***	-.15	-.21	-.17	INC .47		
PCs 96	.85***	-.66***	.75***	-.08	-.44***	-.39	INC .72	UAI (-) .79	IDV .83
PCs 97	.90***	-.67**	.72***	-.14	-.50***	-.26	INC .81	UAI (-) .88	PDI (-) .90
PCs 98	.92***	-.63***	.75***	-.06	-.50***	-.25	INC .84	UAI (-) .89	
Internet 97	.64***	-.59***	.65***	-.24	-.48***	-.31	IDV .42	MAS (-).49	INC .57
							Pred. 4:	UAI (-) .61	
Internet 98	.65***	-.55***	.63***	-.23	-.41***	-.31	INC .45	IDV .48	MAS(-) .54
Internet 99	.67***	-.55***	.63***	-.23	-.43***	-.31	INC .45	MAS (-).51	IDV .56
Internet 00	.66***	-.52***	.64***	-.17	-.42***	-.26	INC .44	IDV .49	

Developed 26, if telephone mainlines and PCs are included

Mobile phones: predictors are: 1996 TL96 ($R^2 = .29$); 1997 TL97 ($R^2 = .24$); 1998: TL98 ($R^2 = .19$). Internet hosts: predictors are: 1997: PC97 ($R^2 = .56$); 1998: PC98 ($R^2 = .47$); 1999: PC98 ($R^2 = .49$)

	INC	PDI	IDV	MAS	UAI	LTO	Pred 1	R ²	Pred 2	R ²	Pred 3	R ²
Faxes 96	.75***	-.22	.37*	.17	-.23	.26	INC	.56				
Faxes 98	.64***	-.24	.35	.21	-.20	.54**	INC	.43				
Mobile 96	.43**	-.48**	.31	-.39*	-.50***	-.07	UAI (-)	.21				
Mobile 97	.46**	-.38*	.17	-.40*	-.42*	.04	INC	.21	MAS (-)	.36		
Mobile 98	.43*	-.40*	.31	-.23	-.42*	.07	INC	.18				
Cable 97	.41*	-.37*	.38*	-.24	-.13	-.11	INC	.17				
Cable 98	.49***	-.33*	.35*	-.25	-.21	-.13	INC	.24				
PCs 96	.68***	-.47**	.62***	-.16	-.64***	-.32	INC	.47	UAI (-)	.65	IDV	.72
PCs 97	.76***	-.45*	.54***	-.26	-.78***	-.24	UAI (-)	.61	INC	.84		
PCs 98	.79***	-.42*	.57***	-.21	-.76***	-.23	INC	.63	UAI (-)	.83		
Internet 97	.40*	-.47**	.50***	-.39*	-.56***	-.31	UAI (-)	.31				
Internet 98	.45**	-.42*	.50***	-.36*	-.47**	-.32	IDV	.25				
Internet 99	.49***	-.42*	.50***	-.37*	-.49***	-.32	IDV	.25				
Internet 00	.47***	-.37*	.50***	-.27	-.49***	-.25	IDV	.25				

Europe 15, if telephone mainlines and PCs are included

Mobile phones: when telephone main lines are included in the equation, there is no difference. Internet hosts: predictors are: 1997: PC97 ($R^2 = .49$); 1998: PC98 ($R^2 = .41$); 1999: (1) PC98 ($R^2 = .46$); (2) MAS (-) ($R^2 = .63$).

	INC	PDI	IDV	MAS	UAI	LTO	Pred 1	R ²	Pred 1	R ²	Pred 3	R ²
Faxes 96	.52*	-.45*	.46*	-.21	-.51*	-.22	INC	.27				
Faxes 98 ¹⁾	.48*	-.47	.43	-.14	-.46	-.14	None					
Mobile 96	.24	-.49*	.17	-.61**	-.60**	-.30	MAS (-)	.37	PDI (-)	.62		
Mobile 97	.23	-.41	.05	-.60**	-.47*	-.23	MAS (-)	.36				
Mobile 98	.43	-.53*	-.38	.38	-.59*	-.18	UAI (-)	.34				
Cable 97	.62**	-.27	.32	-.20	-.26	.05	INC	.39				
Cable 98	.59*	-.27	.30	-.19	-.27	.06	INC	.35				
PCs 96	.89***	-.49*	.43	-.15	-.56*	-.37	INC	.79	UAI (-)	.88		
PCs 97	.82***	-.62	.48*	-.34	-.72***	-.30	INC	.67	UAI (-)	.88	MAS(-)	.92
PCs 98	.86***	-.59**	.55*	-.27	-.69***	-.28	INC	.74	UAI (-)	.86		
Internet 97	.41	-.45*	.18	-.56*	-.47*	-.28	MAS (-)	.32	PDI (-)	.52		
Internet 98	.42	-.41	.15	-.56*	-.41	-.29	MAS (-)	.31				
Internet 99	.45*	-.46*	.18	-.58*	-.48*	-.31	MAS (-)	.34	PDI (-)	.55		
Internet 00	.49*	-.47*	.20	-.59**	-.47*	-.26	MAS (-)	.35	PDI (-)	.57		

¹⁾ data only for 13 countries

A5.2. The Internet in Europe

1. Internet penetration (percent accessing WWW in past few weeks) 1998 and 1999. Initiative Media, in: M&M mediaplanning guide 99/2000
2. Percent Internet access 1995: 14 countries. Continental Research Survey among senior management; in: ESOMAR Newsbrief. No. 2 February 1996
3. EMS data 1997 and 1999 on usage of the Internet. 15 countries.
Use "daily/almost daily", for business, education, e-mail, leisure and (99 only) purchasing goods or services; Use "At least once a week" (97) or "A few times a week" (99), for business, education, e-mail, leisure and (99 only) purchasing goods or services; Use "At least once per month" (97) or "A few times a month" (99), for

- business, education, e-mail, leisure and (99 only) for purchasing goods or services; Heavy users: "Use for three purposes"; Use daily/almost daily for at least one purpose.
4. Eurobarometer Report "Measuring Information Society 1997" This survey measures willingness to pay 10 ECU's per month for various Internet applications:
1. Multimedia access to cultural heritage;
 2. To contact a politician on-line in view of participating in political activities;
 3. Distance learning applications
 4. Telemedicine applications;
 5. "Teleadministration" applications;
 6. An on-line service that helps prepare travels;
 7. Electronic newspapers;
 8. Electronic commerce applications;
 9. Applications that may facilitate a job search;
 10. E-mail access;
 11. Home banking services.
- For the applications 1, 4, 5, and 9, no significant correlations were found.
5. Bi-annual Eurobarometer survey no. 52, 1999. Percents answers "Internet" to the question where people look for information about the EU.

Table A.95. Access to the Internet, Europe 15. Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	Pred 1	R ²	Pred 2	R ²
Penetration 98	.10	-.32	.05	-.70***	-.45*	-.18	MAS (-)	.49		
Penetration 99	.07	-.35	.02	-.70***	-.45*	-.23	MAS (-)	.49		
Access 1995	.28	-.61*	.09	-.52*	-.60*	-.23	PDI (-)	.37	MAS (-)	.60

Table A.96. CVs Internet applications 1996, Eurobarometer, Europe 13

Use of Internet to	CV
Contact politician	.56
Distance learning	.30
Information for travel	.37
Electronic newspaper	.48
E-mail access	.62
Home banking	.38
Average	.45

Table A.97. Willingness to pay 10 ECU for Internet applications (EU-13); Income & culture

	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Politician	-.02	-.37	-.56*	-.00	.08	.12	IDV (-)	.31	PDI (-)	.57
Dist. learning	.34	-.59*	.25	-.49*	-.62*	.28	UAI (-)	.39		
Info travel	.19	-.46	.17	-.25	-.52*	.36	none			
El. newspaper	.19	-.41	-.03	-.60*	-.35	.19	MAS (-)	.36		
E-mail access	.12	-.43	.14	-.74***	-.61*	.23	MAS (-)	.54	PDI (-)	.75
Home banking	.05	-.30	.16	-.65***	-.54*	.20	MAS (-)	.42		
EB52, Info EU	.25	-.46	.31	-.73***	-.59*	.21	MAS (-)	.54	PDI (-)	.78

Table A.98. CVs usage of the Internet 1997-1999 (EMS), Europe 15

Usage for	1997	1999
Business, daily/almost daily	1.28	.55
Business, at least once a week	.57	.48
Business a few times a month	.55	.42
Education, daily/almost daily	.35	.32
Education, a few times a week	.31	.29
Education, a few times a month	.34	.29
E-mail, daily/almost daily	.43	.40
E-mail, a few times a week	.41	.34
E-mail, a few times a month	.42	.32
Leisure, daily/almost daily	.45	.40
Leisure, a few times a week	.50	.40
Leisure, a few times a month	.45	.37
Purchasing goods daily/almost daily		.95
Purchasing goods at least once a week		.69
Purchasing goods at least once a month		.54
Use of Internet for three purposes	.40	.36
Use of Internet for at least one purpose daily	.42	.41

Table A.99. Use of the Internet for business, Europe 15: Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	PCs97	Pred 1	R ²	Pred 2	R ²
Use daily/almost daily											
1997	.28	-.64***	-.06	.33	-.13	.10	.13	PDI (-)	.41	UAI	.72
1999	.46*	-.70***	.56*	-.13	-.87***	-.15	.78***	UAI (-)	.76		
Use at least once a week/a few times a week											
1997	.50*	-.65***	.52*	-.46*	-.78***	0	.83***	UAI (-)	.61		
1999	.44*	-.77***	.44*	-.42	-.86***	-.03	.85***	UAI (-)	.75		
Use at least once per month/a few times a month											
1997	.42	-.68***	.47*	-.39	-.75***	-.21	.77***	UAI (-)	.56		
1999	.33	-.77***	.44*	-.41	-.80***	-.16	.69***	UAI (-)	.64		

Table A.100. Use of the Internet for education, Europe 15: Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	PCs97	Pred 1	R ²
Use daily/almost daily									
1997	-.03	-.04	-.11	-.63***	-.17	-.18	.42	MAS (-)	.39
1999	.07	-.39	.06	-.45*	-.72***	-.18	.57*	UAI (-)	.31
Use at least once a week/a few times a week									
1997	.36	-.49*	.30	-.40	-.65***	-.14	.75***	UAI (-)	.43
1999	.33	-.48*	.23	-.44*	-.72***	-.18	.77***	UAI (-)	.52
Use at least once per month/a few times a month									
1997	.49*	-.32	.37	-.13	-.47*	-.12	.79***	None	
1999	.35	-.52*	.46*	-.16	-.70***	.23	.57*	UAI (-)	.49

Table A.101. Use of the Internet for e-mail, Europe 15: Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	PCs97	Pred 1	R ²	Pred 2	R ²
Use daily/almost daily											
1997	.45*	-.43	.51*	-.47*	-.70***	-.07	.82***	UAI (-)	.49		
1999	.45*	-.53*	.46*	-.54*	-.79***	-.24	.86***	UAI (-)	.62	MAS (-)	.75
								Pred. 3:		INC	.83
Use at least once a week/a few times a week											
1997	.40	-.49*	.45*	-.42	-.70***	-.10	.78***	UAI (-)	.49		
1999	.17	-.49*	.37	-.37	-.75***	.20	.66***	UAI (-)	.56		
Use at least once per month/a few times a month											
1997	.50*	-.56*	.48*	-.53*	-.71***	-.18	.81***	UAI (-)	.51		
1999	.45*	-.75***	.45*	-.42	-.88***	-.27	.83***	UAI (-)	.78		

Table A.102. Use of the Internet for leisure, Europe 15: Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	PCs97	Pred 1	R ²	Pred 2	R ²
Use daily/almost daily											
1997	.10	-.30	.18	-.75***	-.54*	0	.66***	MAS (-)	.57	UAI (-)	.71
1999	.14	-.42	.15	-.67***	-.66***	-.05	.67***	MAS (-)	.45	UAI (-)	.71
Use at least once a week/a few times a week											
1997	.43	-.58*	.40	-.47*	-.73***	-.13	.83***	UAI (-)	.53		
1999	.26	-.57*	.28	-.68***	-.81***	-.14	.77***	UAI (-)	.65	MAS (-)	.89
Use at least once per month/a few times a month											
1997	.19	-.42	.05	-.64***	-.48*	-.45*	.58*	MAS (-)	.40	PDI (-)	.58
								Pred. 3:		LTO (-)	.73
1999	.26	-.69***	.27	-.43	-.81***	-.35	.75***	UAI (-)	.66		

Table A.103. Use of the Internet for purchases (e-commerce), Europe 15: Income and culture

	INC	PDI	IDV	MAS	UAI	LTO	PCs97	Predictor	R ²
Use daily/almost daily									
1999	-.32	-.14	-.07	.02	-.22	-.14	.0	None	
Use at least once a week/a few times a week									
1999	.58*	-.44	.24	-.17	-.48*	-.40	.64***	INC	.34
Use at least once per month/a few times a month									
1999	.45*	-.64***	.35	-.06	-.62**	-.44	.60**	PDI (-)	.41

Table A.104. Heavy use of the Internet, Europe 15: Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	PCs97	Pred 1	R ²	Pred 2	R ²
97 3 purp	.39	-.58*	.34	-.53*	-.72***	-.19	.85***	UAI (-)	.52		
99 3 purp	.35	-.67***	.32	-.54*	-.83***	-.17	.86***	UAI (-)	.68	MAS (-)	.80
97 dly,1 p	.38	-.43	.42	-.53*	-.69***	-.10	.81***	UAI (-)	.47		
99 dly,1 p	.28	-.63**	.31	-.55*	-.86***	-.20	.79***	UAI (-)	.73	MAS (-)	.85

A5.3. Consumer electronics: Audio

Reader's Digest Survey 1991: percent households with...: hi-fi system; CD player; Personal Stereo. Euromonitor 1997: 1996 sales in units per capita: Personal stereo. EMS 1995, 1997, 1999: Which of the following items do you or other family members of your household personally own? Percents Hi-fi system; CD player; Mini disc player.

Table A.105. CVs Audio, Europe15					
	1991	1995	1996	1997	1999
CD player	.52	.25		.18	.14
Hi-fi system	.28	.09		.08	.08
Personal stereo	.30		.36		
Mini disc player		.43		.43	.33

Table A.106. Consumer electronics, Audio. Europe 15: Income and cultural variables										
	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Hi-fi system										
1991	.56*	-.35	.63**	-.35	-.52*	-.02	IDV	.40		
1995	.46*	.03	.31	.43	.16	-.03	None			
1997	.29	-.01	.45*	.45*	.03	-.03	None			
1999	.12	.12	.20	.59*	.26	-.12	MAS	.35		
CD player										
1991	.16	.25	.20	.33	.00	-.19	None			
1995	.43	-.13	.75***	-.47*	-.47*	-.07	IDV	.56	MAS (-)	.82
1997	.30	-.04	.45*	-.78***	-.42	-.28	MAS (-)	.60	IDV	.84
1999	.61**	-.27	.43 ^{ns}	-.65***	-.51*	-.37	MAS (-)	.42	INC	.73
Personal stereo/Mini disc player										
1991 (p.st)	.54*	-.44*	.56*	-.38	-.65***	-.17	UAI (-)	.42		
1995 (md)	.14	-.55*	.45*	.43	-.53*	.04	PDI (-)	.30		
1996	.29	-.48*	.48*	.05	-.63**	-.01	UAI (-)	.40		
1997	.44*	-.58*	.15	-.35	-.52*	-.56*	PDI (-)	.33	LTO (-)	.61
1999	.53*	-.63**	.17	-.07	-.40	-.47*	PDI (-)	.40	LTO (-)	.58

A5.4. Household appliances

Reader's Digest Survey 1970: "percent households with.." and "use among all women"

Deep Freezer; Electric dishwasher; Electric hair dryer.

Reader's Digest Survey 1991: Percent of all households with.." or "all women using today": Electric dishwasher; Deep Freezer; Microwave oven; Food processor; Electric hair dryer.

Euromonitor 1997: 1996 sales in value per capita: Food processor; Electrical iron; Electric hair dryer (units /cap)

EMS 1997, 1999: Which of the following items do you or other family members of your household personally own? Percent Separate Deep Freezer (97); Electric dishwasher (1997 and 1999); Food processor (1997); Microwave oven (1997 and 1999).

Table A.107. CVs Electrical appliances, Europe15					
1970	1991	1996	1997	1999	
Electric Dishwasher	.90	.46		.17	.16
Deep Freezer	1.05	.42		.20	
Food processor		.54	.71	.33	
Microwave oven		.61		.24	.21
Electric iron			.30		
Electric hair dryer	.45	.11	.52		

Table A.108. Household appliances, Europe 15: Income and cultural variables.									
	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2 R ²
Electric dishwasher									
1970	.70***	-.13	.31	.02	-.27	.08	INC	.49	
1991	.73***	-.31	.09	-.21	-.17	-.37	INC	.53	
1997	.68***	-.38	-.11	-.30	-.12	-.49*	INC	.46	IDV (-) .64
1999	.65***	-.36	-.19	-.28	-.08	-.43	INC	.42	IDV (-) .71
Deep Freezer									
1970	.64**	-.41	-.08	-.64**	-.46*	-.13	INC	.41	
1991	.62**	-.31	.28	-.54*	-.36	-.38	INC	.38	MAS (-) .62
1997	.44 ^{ns}	-.11	.07	-.58*	-.14	-.30	MAS (-)	.34	
Electric hair dryer									
1970	.70***	-.27	.56	.14	-.36	.08	INC	.49	
1991	.52*	-.25	.60**	.21	-.47*	-.25	IDV	.36	
1996	.30	-.37	.26	.52*	-.26	-.12	MAS	.27	

Ownership of food processors and microwave ovens is not culture-bound. There is no correlation with income either (data 1991, 1997, 1999). Unit sales of food processors as measured by Euromonitor for 1996 correlate negatively with IDV and positively with LTO: IDV (-), $r = -.63^{**}$; LTO, $r = .46^*$. Predictors are (1) IDV (-), $R^2 = .39$; (2) MAS, $R^2 = .58$; (3) LTO, $R^2 = .72$. Sales of electric irons of 1996 correlates with MAS: $r = .71^{***}$, predictor is MAS, $R^2 = .51$

A6. PERSONAL AND HOUSEHOLD CLEANING PRODUCTS

The categories covered in this section are: (1) Personal products, such as watches and cameras; (2) Personal care products such as cosmetics, perfume and toothpaste; (3) household products: soaps and cleaning products.

A6.1. Personal and luxury products

Watches and cameras: data only available for Europe.

A6.1.1. Watches, Europe

Reader's Digest surveys: 1970: percent adults buying wrist watch in past 5 years; price paid for wrist watch less than £ 5; price paid over £20; 1991: spent more than \$300 on wristwatch in last 2 years.

EMS 1995, 1997, and 1999: Main watch value under £100: Main watch value over £1,000; Number of watches in use (1, 2, 3, 4+) Questions: "How many watches do you have that you wear these days?"; Main watch is: Rolex; Seiko; Swatch; Omega

Euromonitor 1997: Watches (in units) sold 1996

Table A.109. CVs Sales and Value of main watch 1970-1999, Europe 15					
	1970	1991	1995	1997	1999
Bought wrist watch	.19				
Units sold (1996)				.26	
Price					
Less than £5	.57				
Over £20	.59				
Over \$300		.70			
Under £100			.18	.17	.17
Over £1,000			.81	.80	.70

Table A.110. Watches, units bought/sold and value, Europe 15: Income and cultural variables											
	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²	Pred. 3 R ²
Bought watch70	.75***	-.14	.50*	-.37	-.43	-.14	INC	.57			
Units sold 96	-.26	.12	-.58*	.32	.33	-.08	IDV (-)	.33			
Price											
Less than £5-70	-.39	.02	-.13	.20	-.04	.08	None				
Over £20-70	.59**	-.06	.18	.02	-.03	.11	INC	.35			
Over \$300-91	.43 ^{ns}	.06	.05	.39	.31	-.06	None				
Under £100-95	-.70***	.36	-.23	-.50*	.01	.27	INC (-)	.49	MAS (-)	.74	
Under £100-97	-.71***	.54*	-.25	-.47*	.19	.29	INC (-)	.50	MAS (-)	.76	
Under £100-99	-.58*	.66***	-.15	-.46*	.32	.22	PDI	.43	MAS (-)	.64	INC (-) .76
Over £1,000-95	.38	.02	.23	.56*	.12	.12	MAS	.32			
Over £1,000-97	.44 ^{ns}	.07	.22	.56*	.18	-.01	MAS	.31	INC	.53	
Over £1,000-99	.33	.03	.24	.53*	.14	.05	MAS	.29			

Table A.111. CVs Number of watches in use, Europe 15				
	1995	1997	1999	
One watch	.20	.23	.21	
Two watches	.12	.11	.11	
Three watches	.42	.29	.29	
Four + watches	.68	.56	.55	

Table A.112. Number of watches in use, Europe 15: Income and cultural variables									
	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2 R ²
1995									
One	-.06	-.16	.29	-.51*	-.48*	-.42	None		
Two	-.39	.22	.30	-.21	-.23	.46*	None		
Three	-.03	-.16	-.42	.29	.21	.22	None		
Four plus	.21	.09	-.36	.53*	.44*	.22	MAS	.28	
1997									
One	.06	-.15	.29	-.44*	-.47*	-.59*	LTO (-)	.34	
Two	-.33	-.03	.03	-.01	.02	.73***	LTO	.54	
Three	-.08	.08	-.50*	.17	.30	.32	None		
Four plus	-.01	.28	-.47*	.47*	.62**	.17	UAI	.38	
1999									
One	.25	-.01	.46*	-.41	-.36	-.60**	LTO (-)	.37	
Two	-.27	-.18	-.01	-.15	-.13	.66***	LTO	.44	
Three	-.21	-.01	-.55*	.21	.24	.44*	IDV (-)	.31	
Four plus	-.22	.05	-.60**	.50*	.52*	.37	IDV (-)	.36	MAS .65

Table A.113. CVs Four brands of wrist watches (main watch)

	Rolex	Seiko	Swatch	Omega
1995	.77	.47	.89	.54
1997	.59	.48	.93	.43

Table A.114. Watches, the meaning of brands in Europe: Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Rolex 95	-.28	.19	.26	.37	.04	.13	None			
Rolex 97	-.08	-.08	.47*	.38	-.24	.10	None			
Seiko 95	-.26	-.46*	.30	-.38	-.66***	.05	UAI (-)	.44	INC (-)	.67
Seiko 97	-.08	-.35	.23	-.61**	-.50*	-.20	MAS (-)	.38		
Swatch 95	.47*	-.09	.06	.75***	.24	.06	MAS	.56	INC	.78
Swatch 97	.40	-.12	.02	.69***	.25	.05	MAS	.47	INC	.66
Omega 95	.19	.26	-.59*	.11	.50*	-.01	IDV (-)	.34	INC	.55
Omega 97	.05	.14	-.39	-.04	.14	.40	None			

A6.1.2. Cameras, Europe

Reader's Digest Surveys (1970, 1991): "Household has..." and EMS (1995, 1997, 1999): "Which of the following items do you or other members of your household personally own?" Still camera or camera in household; Number of cameras: 1, 2 or 3; Compact camera less than £100; Compact camera over £100; 35 mm camera or 35 mm SLR camera; Polaroid camera or Instant picture camera; 6 or more films used last 12 months.

Table A.115. CVs Ownership of cameras and films used, Europe. Con/divergence means per year

	1970	1991	1995	1997	1999	Convergence	Divergence
Camera owned	.34	.19		.14	.09	2.54	
One camera			.09	.12	.10		2.50
Two cameras			.15	.25	.19		5.26
Three cameras			.30	.32	.33		2.27
Compact camera £100-				.34	.33	.24	7.35
Compact camera £100+			.20	.21	.19	1.25	
35 mm (SLR) camera	.57		.48	.27	.25	1.94	
Polaroid camera	.59	.48	.56	.39	.41	1.05	
6+ films used		.36	.13	.12	.12	7.40	

Table A.116. Cameras, Europe 15: Income and cultural variables.

	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²	Pred. 3	R ²
Camera in household, personally owned												
1970	.84***	-.49*	.59*	-.23	-.55*	-.18	INC	.70				
1991	.76***	-.35	.75***	-.38	-.63**	-.26	INC	.58	IDV	.82	MAS (-)	.95
1997	.51*	-.47*	.81***	.06	-.62**	-.09	IDV	.66				
1999	.48*	-.48*	.69***	.11	-.60**	-.23	IDV	.47				
One camera												
1995	-.38	-.01	-.16	-.36	-.19	.31	None					
1997	.20	-.24	.68***	-.26	-.44*	-.03	IDV	.46				
1999	-.14	.06	.32	-.27	-.18	-.06	None					
Two cameras												
1995	.32	.10	.12	-.36	.07	-.50*	None					
1997	.63**	-.45*	.65***	.20	-.54*	-.11	IDV	.42				
1999	.60**	-.53*	.52*	.20	-.56*	-.16	INC	.36				
Three cameras												
1995	.01	.15	.05	.25	.12	.14	None					
1997	.21	-.48*	.42	.40	-.43	-.00	None					
1999	.44*	-.44 ^{ns}	.28	.31	-.27	-.26	None					
Compact camera £100-												
1995	-.07	-.25	.61**	.01	-.58*	.10	IDV	.38				
1997	.01	-.26	.61**	-.03	-.62**	.15	UAI (-)	.38				
1999	-.06	-.30	.50*	-.05	-.65***	.07	UAI (-)	.42				
Compact camera £100+												
1995	.76***	-.21	.28	-.35	-.13	-.30	INC	.57	MAS (-)	.70		
1997	.75***	-.71***	.38	-.23	-.52*	-.23	INC	.56	PDI (-)	.74		
1999	.71***	-.80***	.21	-.09	-.54*	-.35	PDI (-)	.64	INC	.78		
35 (SLR) mm camera												
1970	.48*	-.32	.03	.23	-.11	-.02	None					
1995	.43	-.72***	.25	.13	-.48*	.06	PDI (-)	.51				
1997	.67***	-.44*	.61**	.28	-.35	-.21	INC	.45				
1999	.66***	-.44 ^{ns}	.56*	.29	-.29	-.22	INC	.43				
Polaroid camera												
1970	.47*	-.29	.47*	.03	-.37	-.33	None					
1991	.08	.13	.47*	.55*	.11	-.17	MAS	.30				
1995	.20	-.02	-.07	.63**	.24	.05	MAS	.40				
1997	.08	.26	-.12	.50*	.46*	.07	None					
1999	.12	.10	-.18	.51*	.38	.03	None					

Table A.117. Films, 6+ used last 12 months, Europe: Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²	Pred. 3	R ²
1991	.74***	-.21	.48*	.15	-.26	-.18	INC	.55				
1995	.05	.29	.00	.61**	.39	-.27	MAS	.37				
1997	.41	-.07	.20	.50*	.08	-.59**	LTO (-)	.35	MAS	.64		
1999	.65***	-.20	.35	.54*	.01	-.54*	INC	.42	MAS	.78	LTO (-)	.86

A6.2. Personal products

In this category are included a number of personal care products: OTC health care, real jewelry, cigarettes, and pet foods.

A6.2.1. Personal products, comparison by country group

Data are from Euromonitor report 1997, all data of 1996

1. Personal care products¹

All perfume and fragrances, value/capita (worldwide 38 countries)

Women's fragrances, value/capita (worldwide 38 countries)

All color cosmetics, value/capita (worldwide 38 countries)

All skin care products, value/capita (worldwide 38 countries)

All hair care products, value/capita (worldwide 38 countries)

All bath and shower products, value/capita (worldwide 38 countries)

Toilet soaps, value/capita (worldwide 36 countries)

Toothpaste, value/capita (worldwide 36 countries)

2. Miscellaneous

All OTC health care products, value/capita (worldwide 38 countries)

Real jewelry, value/capita (worldwide 24 countries)

Cigarettes, units/capita (worldwide 39 countries)

Pet foods, kg/capita (worldwide 32 countries)

	Worldwide	Developed	Europe 15
All perfume and fragrances	.82	.57	.45
Women's fragrances	.84	.59	.56
All color cosmetics	.85	.60	.33
All skin care products	.84	.58	.43
All hair care products	.66	.37	.30
All bath and shower products	.60	.48	.37
Toilet soaps	.63	.57	.60
Toothpaste	.61	.45	.35
Average	.73	.53	.42
All OTC health care products	.95	.57	.44
Real jewelry	.72	.66	.66
Cigarettes	.52	.37	.31
Pet foods	1.01	.74	.54
Average	.80	.59	.49

¹ Euromonitor provides data for maximum 39 countries of the group worldwide 44. Lacking data are for: Costa Rica, El Salvador, Pakistan, Panama and Uruguay. Additional N/A data are for Israel for all personal care products. Additional lacking data are the following: toothpaste: Chile, Malaysia and Turkey, while for this category Israel data are available. For real jewelry, in addition to Europe 15 and Greece, data are available only for Canada, Israel, Japan, Mexico, New Zealand, South Africa, Thailand and USA. Data lacking for petfoods are for: Australia, Ecuador, India, Indonesia, Israel, Japan, New Zealand, Peru, South Africa and Turkey. Because data are lacking for some countries in some product categories, the group developed 26 varies between 26 and 24 countries.

Table A.119. Personal care products: Income and cultural variables.										
	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Worldwide										
All perfume	.66***	-.57***	.56***	-.04	-.06	-.53	INC	.44		
Wm fragr.	.63***	-.51***	.50***	.04	-.05	-.44*	INC	.40		
Color cosm.	.76***	-.36*	.39**	.08	-.33*	.05	INC	.58		
Skin care	.82***	-.47***	.57***	-.16	-.02	-.46**	INC	.68		
Hair care	.87***	-.67***	.69***	-.14	-.10	-.40*	INC	.75	IDV	.78
Bath & sh.	.77***	-.40**	.37*	.03	.07	-.15	INC	.60	UAI	.66
Toothpaste	.75***	-.65***	.63***	-.39**	-.38*	-.47**	INC	.56	MAS (-)	.67
Developed										
All perfume	.41*	-.33	.38*	-.01	-.11	-.44*	INC	.17		
Wm fragr.	.37*	-.23	.26	.09	-.07	-.33	None			
Color cosm.	.60***	.02	.03	.12	-.43*	.29	INC	.36		
Skin care	.69***	-.13	.38*	-.21	.00	-.35	INC	.47		
Hair care	.71***	-.39*	.50***	-.20	-.18	-.26	INC	.51		
Bath & sh.	.77***	-.18	.18	.14	.06	.02	INC	.59	UAI	.70
Toothpaste	.59***	-.47**	.51***	-.42*	-.58***	-.43*	INC	.35	MAS (-)	.55
							<u>Pred. 3</u>		UAI (-)	.63
Europe 15										
All perfume	.37	-.16	.15	.34	.08	-.16	None			
Wm fragr.	.33	-.13	.07	.39	.17	-.19	None			
Color cosm.	.64***	-.37	.41	.14	-.33	-.51*	INC	.41		
Skin care	.64***	.12	.39	-.23	-.08	-.55*	INC	.41		
Hair care	.59*	-.17	.31	-.39	-.26	-.41	INC	.35		
Bath & sh.	.71***	-.07	.07	.08	-.02	-.24	INC	.50		
Toothpaste	.60**	-.56*	.30	-.41	-.71***	-.26	UAI (-)	.51	INC	.68

Table A.120. Miscellaneous personal products, three country clusters: Income and culture										
	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Worldwide										
OTC hlth care	.85***	-.70***	.68***	-.04	-.16	-.36*	INC	.72	PDI (-)	.77
Real jewelry	.34 ^{ns}	-.00	-.04	.44*	.29	.46*	MAS	.20		
Cigarettes	.58***	-.31*	.44***	.28*	.23	-.14	INC	.34	UAI	.47
Pet foods	.38*	-.34	.59***	-.07	-.17	-.35 ^{ns}	IDV	.35		
Developed										
OTC hlthc	.68***	-.51***	.49**	-.07	-.21	-.21	INC	.46		
Real jewelry	.25	.15	-.12	.61***	.33	.45*	MAS	.37		
Cigarettes	.23	.13	.15	.52***	.38*	.14	MAS	.28		
Pet foods	.47*	-.32	.77***	.19	-.38*	-.28	IDV	.59		
Europe 15										
OTC hlthc.	.58*	-.35	.24	.07	-.20	-.13	INC	.33		
Real jewelry	.18	-.00	.39	.51*	.03	-.10	None			
Cigarettes	-.06	.43	-.19	.67***	.47*	-.01	MAS	.45	PDI	.64
Pet foods	.21	-.00	.72***	.31	-.28	-.15	IDV	.51		

A6.2.2. Personal care products, Europe

Reader's Digest Surveys 1970 and 1991: "women or men who have in use now", among all men or all women. Euromonitor 1997: sales in volume or value per capita. Product categories are the following.

Skin care: Skin foods, moisturizing cream 1970; Facial moisturizing cream 1991; Body preps, creams 1991; All skin care products, value/capita 1996; Medicated skin care, value/capita 1996

Cosmetics: Lipstick 1970; Lipstick, lip gloss 1991; Lip products, value/capita 1996; All color cosmetics, value/capita 1996; Eye pencil, mascara 1970; Eye pencil, mascara 1991; Eye make up, value/capita 1996; Face powder, 1970; Face powder, 1991; Rouge, blusher 1991; Make up liquid 1970; Face cleaner 1991; All cosmetics and toiletries 1996

Hair care¹

Visit hair dresser at least once a month 1970; All hair care, value/capita 1996; Shampoo in use, men 1970; Shampoo in use, women 1970; Shampoo, kg/capita 1996; Hair colorants 1970; Hair colorants 1991; Hair setting lotion 1970; Hair mousse, gel 1991; Hair conditioner 1991; Hair spray 1970; Hair spray 1991

Toothpaste²

Toothpaste in use by men 1970; Toothpaste in use by women 1970; Toothpaste, value/capita 1996

Deodorants: Deodorants, women 1970; Deodorants men 1970; Deodorants women 1991; Deodorants men 1991; Deodorants, value/capita 1996

Men's shaving products: Dry only shavers 1970; Electric shavers 1991; Wet only shavers 1970; Wet shavers 1991; Shaving lotion 1970; Shaving lotion 1991; Men's shaving products, value/capita 1996

Table A.121. CVs Skin care products and Cosmetics. Europe 15

	1970	1991	1996
Skin care			
Skin foods, moisturizing cream	.34		
Facial moisturizing cream		.24	
Body preps, creams		.16	
All skin care products, value/capita			.43
Medicated skin care, value/capita			.63
Cosmetics			
Lipstick, gloss	.24	.16	
Lip products, value/capita			.40
All color cosmetics, value/capita			.33
Eye pencil, mascara	.32	.16	
Eye make up, value/capita			.38
Face powder	.18	.31	
Make up liquid	.47		
Rouge, highlighter, blusher		.23	
Face cleaner		.17	
All cosmetics and toiletries			.24

¹ Reader's Digest Eurodata 1991 includes no data on shampoo. The assumption may have been that at that time there was 100% penetration.

² Reader's Digest Eurodata 1991 does not include data on toothpaste. As for shampoo, 100% penetration may be assumed.

Table A.122. Skin products and cosmetics, Europe 15: Income and cultural variables										
	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Skin care										
Moist. cream 70	.71***	-.25	.57*	-.48*	-.56*	-.20	INC	.50		
Moist. cream 91	.76***	-.61**	.59*	-.26	-.75***	-.45*	INC	.58	UAI (-)	.82
							Pred. 3:		LTO (-)	.89
Body creams 91	.53*	-.47*	.56*	-.56*	-.84***	-.27	UAI (-)	.70	MAS (-)	.84
All skin care 96	.64***	.12	.39	-.23	-.08	-.59**	INC	.41		
Med skin cre 96	.67***	-.07	.02	.27	.09	-.32	INC	.45		
Cosmetics										
Lipstick 70	.59*	-.27	.65***	-.34	-.69***	-.07	UAI (-)	.48	PDI	.65
Lipstick 91	.35	-.60**	.71***	-.20	-.90***	-.02	UAI (-)	.82		
Lip products 96	.73***	-.29	.38	-.03	-.32	-.66***	INC	.53	LTO (-)	.70
All color cos 96	.64***	-.37	.41	.14	-.33	-.50*	INC	.41		
Eye cosm 70	.61**	-.50*	.49*	-.29	-.72***	.07	UAI (-)	.52		
Eye cosm 91	.30	-.34	.63**	-.37	-.63***	.32	UAI (-)	.40		
Eye cosm 96	.48*	-.55*	.37	-.01	-.48*	-.26	PDI (-)	.31		
Face powder 70	.35	-.09	.60**	-.31	-.58*	-.25	IDV	.36		
Face powder 91	-.32	-.19	.07	-.07	-.23	.16	None			
Rouge, blush 91	.18	-.34	.71***	-.08	-.53*	.12	IDV	.50		
Make up liq 70	.30	-.21	.70***	-.10	-.69***	-.05	IDV	.48		
Face cleaner 91	.51*	-.41	.70***	-.03	-.73***	-.40	UAI (-)	.54		
All cosm/tltr 96	.84***	-.24	.48*	-.05	-.30	-.53*	INC	.71		

Table A.123. CVs Hair care, Toothpaste and Deodorants			
	1970	1991	1996
Hair care			
Visit hair dresser at least once a month	.28		
All hair care, value/capita			.30
Shampoo in use, men	.30		
Shampoo in use, women	.21		
Shampoo, kg/capita			.22
Hair colorants 1970	.34	.27	
Hair setting lotion/ mousse, gel	.59	.37	
Hair conditioner		.44	
Hair spray	.22	.19	
Toothpaste			
Toothpaste in use by men	.12		
Toothpaste in use by women	.08		
Toothpaste, value/capita			.35
Deodorants			
Deodorants, women	.27	.16	
Deodorants men	.46	.24	
Deodorants, value/capita			.43

Table A.124. Hair care, toothpaste, and deodorants, Europe: Income and cultural variables.

INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Hair care									
Visit hair dr.70	.13	-.10	.22	.53*	-.07	.21	MAS	.28	
All hair care 96	.59**	-.17	.31	-.39	-.26	-.45*	INC	.35	
Shamp men 70	.69***	-.37	.59***	-.02	-.53*	.18	INC	.47	
Shamp wmn 70	.68***	-.45*	.72***	-.13	-.66***	-.04	IDV	.52	
Shamp vol 96	-.19	.18	.02	-.62**	-.02	.24	MAS (-)	.39	
Hair col 70	.65***	-.22	.56*	-.21	-.56*	-.17	INC	.43	
Hair col 91	.09	-.22	.56*	.29	-.21	.05	IDV	.31	
Hair lotion 70	.71***	-.58*	.38	-.23	-.51*	.27	INC	.50	PDI (-) .65
							Pred. 3:	LTO	.79
Hair mousse 91	.21	-.41	.20	-.23	-.46*	.18	None		
Hair cond 91	.41	-.69***	.51*	-.16	-.83***	-.17	UAI (-)	.69	
Hair spray 70	.84***	-.29	.40	-.11	-.31	.00	INC	.71	
Hair spray 91	.28	-.27	.57*	.51*	-.18	.09	IDV	.33	MAS .56
Toothpaste									
Toothp men 70	.73***	-.47*	.25	-.09	-.46*	.03	INC	.54	
Toothp wmn 70	.67***	-.48*	.16	-.24	-.47*	-.11	INC	.45	
Toothpaste 96	.60**	-.56*	.31	-.41	-.71***	-.26	UAI (-)	.51	INC .67
Deodorants									
Deo women 70	.54*	-.46*	.46*	-.59*	-.74***	-.17	UAI (-)	.55	MAS (-).73
Deo men 70	.60**	-.43	.17	-.72***	-.58*	-.17	MAS (-)	.52	PDI (-) .71
Deo women 91	.53*	-.47*	.56*	-.56*	-.84***	-.27	UAI (-)	.70	MAS (-).84
Deo men 91	.41	-.27	.17	-.64***	-.60**	-.27	MAS (-)	.42	UAI (-) .62
Deo val/cap96	.68***	-.40	.54*	-.35	-.64***	-.48*	INC	.46	UAI (-) .66

Table A.125. CVs Men's shaving products. Europe 15

	1970	1991	1996
Dry shavers	.38	.32	
Wet shavers	.47	.28	
Shaving lotion	.26	.47	
Men's shaving products, value/capita			.44

Table A.126. Men's shaving products, Europe: Income and cultural variables.

	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Dry shavers 70	.66***	-.45*	.28	-.38	-.32	-.17	INC	.44		
Electric shavers 91	.71***	-.51*	.36	-.40	-.43	-.07	INC	.50		
Wet shavers 70	-.69***	.41	-.28	.38	.33	.03	INC (-)	.48		
Wet shavers 91	-.67***	.47*	-.28	.31	.34	.15	INC (-)	.45		
Shaving lotion 70	.64***	-.63**	.41	-.34	-.62**	.15	INC	.40	PDI (-)	.61
Shaving lotion 91	.33	.19	.11	.24	.23	.06	None			
Shaving products 96	.45*	-.14	.48*	.08	-.33	.07	None			

A6.3. Luxury products

EMS99 data on (1) Ownership luxury articles: Jewelry over £500; Suit or dress over £500; Briefcase or handbag over £200; Shoes over £100; "Don't know": this answer represents who actually don't know or don't care if they own expensive products or brands. (2) Annual spending on perfumes, skin care, cosmetics, for oneself or as a gift. Less than £20; Between £50 and £99; Between £100 and £249; Never buy.

Table A.127. CVs Luxury articles, Europe 15 (EMS99)

Ownership	
Jewelry over £500	.47
Suit or dress over £500	.59
Briefcase or handbag over £200	.49
Shoes over £100	.33
Average	.47
Annual spending on perfumes	
Less than £20	.41
Between £50 and £99	.21
Between £100 and £249	.34
Never buy	.23
Annual spending on cosmetics	
Less than £20	.26
Between £50 and £99	.28
Between £100 and £249	.39
Never buy	.20
Annual spending on skin care	
Less than £20	.14
Between £50 and £99	.22
Between £100 and £249	.38
Never buy	.39

Table A.128. Luxury articles, Europe 15 (EMS99): Income and cultural variables.

	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Ownership										
Jewelry £500+	-.10	-.12	-.39	.49*	.19	.17	None			
Suit/dr £500+	.01	-.10	-.12	.68***	.28	.24	MAS	.46		
Briefcase £200+	-.04	.12	-.20	.52*	.36	.24	MAS	.27		
Shoes £100+	.69***	-.65***	.15	.23	-.40	-.10	INC	.47		
Don't know	-.26	.28	.09	-.49*	-.06	-.09	None			
Annual spending on perfumes										
Less than £20	.25	-.45*	.07	-.26	-.43	.34	None			
£50 to £99	-.16	.36	-.32	.37	.34	-.43	None			
£100 to £249	-.02	-.18	-.15	-.10	-.22	-.46*	None			
Never buy	.05	-.24	.50*	.07	-.24	.47*	None			
Annual spending on cosmetics										
Less than £20	.41	-.12	.30	-.37	-.29	.21	None			
£50 to £99	-.01	-.16	-.70	.19	.26	-.34	IDV (-)	.49	LTO (-)	.66
£100 to £249	-.01	-.24	-.52*	.40	.15	-.22	IDV (-)	.28		
Never buy	-.08	.14	.63**	.11	-.11	-.06	IDV	.39		
Annual spending on skin care										
Less than £20	.39	-.19	-.03	-.47*	-.23	-.05	None			
£50 to £99	.26	-.23	-.60**	-.09	.08	-.34	IDV (-)	.36		
£100 to £249	-.26	-.32	-.52*	.29	.04	-.05	IDV (-)	.27		
Never buy	-.03	.12	.68***	.16	-.18	.42	IDV	.46	LTO	.70

A6.4. Household products

Euromonitor: (1) All household cleaning products in value/capita; (2) All soaps and detergents in kg/capita; (3) All disposable paper products, in value/capita.

Table A.129. CVs Household products, three country clusters			
	Worldwide	Developed 26	Europe 15
Household cleaning products	.54	.32	.20
Soaps & detergents	.40	.35	.33
Disposable paper products	.60	.42	.20

Table A.130. Household products, three country clusters: Income and cultural variables										
	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Worldwide (29-35 countries, LTO = 22 countries)										
Hsh cl prods (35 ctr)	.73***	-.43***	.59***	-.06	-.12	-.43*	INC	.54		
Soaps & det (24 ctr)	-.02	.13	-.00	.07	.29	-.00	None			
Disp prods (29 ctrs)	.77***	-.55***	.61***	.07	-.26	.38*	INC	.59		
Developed 26 (LTO = 22 countries)										
Hsh cl prods	.41*	.03	.26	-.12	-.06	-.35	INC	.17		
Soaps & det.	-.22	.38	.01	.04	.49*	-.14	UAI	.24		
Disp prods	.58***	-.26	.29	.13	-.11	.74***	INC	.34		
Europe 15										
Hsh cl prods	-.23	.73***	-.32	.05	.62**	-.38	PDI	.53	LTO (-)	.70
Soaps & det.	-.43	.68***	-.20	.13	.60**	-.57	PDI	.46		
Disp prods	.26	-.43	.61**	-.36	-.66***	.19	UAI (-)	.43		

The following findings apply when LTO is included in regression analysis: Worldwide: Disposables (LTO = 21): Pred. 1 INC ($R^2 = .34$); Pred. 2 LTO ($R^2 = .53$). Developed 26: Disposables (LTO = 20): Pred. 1 is LTO ($R^2 = .55$); Pred. 2 is INC ($R^2 = .68$)

A7. FINANCE

Finance includes (1) credit cards and (2) insurance and investments. Data are available for Europe only. Reader's Digest Surveys 1970 and 1991 and EMS 1995/1997/1999 Reader's Digest: "in household". EMS: "personally owned".

A7.1. Credit cards

1970: Household with credit card; 1991: Direct debit card; 1991: Auto cash dispenser; 1997/99 Has credit card; 1997/99: Corporate credit card; 1997/99: Private credit card; 1995/1997/1999: Credit card usage: "daily, almost daily"; "once a week or more"; "a few times a month"; "approximately once a month"; "less often".

Table A.131. CVs Credit cards: ownership and usage in Europe					
	1970	1991	1995	1997	1999
Ownership					
Household with credit card	1.08				
Direct debit card		.68			
Auto cash dispenser		.36			
Has credit card				.13	.13
Corporate credit card				.33	.34
Private credit card				.14	.13
Usage					
Daily/almost daily			.76	.78	.71
Once a week or more			.29	.27	.27
A few times a month			.36	.27	.29
Approximately once a month			.38	.51	.51
Less often			.36	.43	.34

Table A.132. Credit cards, Europe. Income and cultural variables									
	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2 R ²
Ownership credit card									
Credit card 70	.49*	-.44*	.36	-.38	-.67***	-.10	UAI (-)	.45	
Debit card 91	.66***	-.21	.44*	-.36	-.48*	-.20	INC	.43	
Cash disp 91	.53*	-.08	.53*	-.53*	-.38	-.12	MAS (-)	.28	IDV .60
Corp cc 97	.58*	-.57*	.33	-.53*	-.66***	-.32	UAI (-)	.43	
Corp cc 99	.61**	-.59*	.32	-.55*	-.73***	-.22	UAI (-)	.53	MAS (-).68
Usage credit card							Pred. 3:		INC .78
Daily 95	-.04	.28	.04	-.40	-.01	-.69***	LTO (-)	.47	
Daily 97	-.03	.21	-.01	-.36	-.07	-.69***	LTO (-)	.47	
Daily 99	-.00	.20	.01	-.40	-.11	-.64***	LTO (-)	.41	
Once week 95	.18	.22	.14	-.12	-.18	-.21	None		
Once week 97	.00	.57*	-.08	-.05	.27	-.41	PDI	.32	LTO (-) .52
Once week 99	-.07	.53*	.07	-.04	.10	-.43	PDI	.28	UAI (-) .51
							Pred. 3:		LTO (-) .70
Fw month 95	-.27	.16	-.29	.54*	.27	.52*	MAS	.29	LTO .53
Fw month 97	-.08	.12	-.26	.45*	.29	.50*	None		
Fw month 99	-.07	-.01	-.18	.53*	.26	.41	MAS	.28	
Once mnth 95	.29	-.39	-.01	.50*	.09	.34	None		
Once mnth 97	.22	-.33	.39	.03	-.20	.52*	LTO	.27	INC .52
Once mnth 99	.07	-.16	.36	.01	-.11	.66***	LTO	.43	INC .62
Less 95	-.23	-.17	-.40	.06	.20	.71***	LTO	.50	
Less 97	.30	-.27	.42	-.14	-.25	.44 ^{ns}	None		
Less 99	.24	-.33	.16	-.06	-.13	.26	None		

A7.2. Insurance and investments

Insurance: Whole life insurance 1970 and 1991; Building & Home insurance, possessions 1991; Investments: Stocks and shares 1970, 1991, 1995, 1997, 1999; Unit trusts (1970); Unit trusts/mutual funds 1991, 1995, 1997, 1999; Pension investments: Private pension savings plan 1991; Insurance and pension related investment 1995, 1997, 1999; Other investments: Precious metals, gems 1995, 1997, 1999; Collections (e.g. coins/stamps) 1995, 1997, 1999; Other financial behavior: Average payment days, agreed and actual (Data NRC Handelsblad 5/8/97).

Table A.133. CVs Insurance and Investments, Europe; mean convergence or divergence per year						
	1970	1991	1995	1997	1999	Convergence Divergence
Whole life insurance	.58	.43				
Building insurance		.45				
Home insurance (possessions)		.41				
Stocks and shares	.49	.70	.37	.25	.23	9.46
Unit trusts/mutual funds		1.55	.95	.86	.78	4.47
Private pension investments		.83	.40	.36	.33	4.38
Precious metals, gems			.46	.52	.51	2.45
Collections			.52	.48	.46	2.88
Average payment days, agreed (1996)	.43					
Average payment days, actual (1996)	.41					

Table A.134. Insurance and investments, Europe 15: Income and cultural variables.									
	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2 R ²
Insurance									
Life 70	.55*	-.35	.61**	-.16	-.73***	.11	UAI (-)	.54	
Life 91	.20	-.27	.64***	-.28	-.67***	-.14	UAI (-)	.45	
Building 91	.17	-.03	.61**	-.18	-.34	-.39	IDV	.37	
Home 91	.63**	-.44*	.50*	-.32	-.51*	-.25	INC	.39	
Investments									
St&Sh 70	.69***	-.39	.47*	-.58*	-.63**	-.01	INC	.48	
St&Sh 91	.66***	-.29	.36	-.56*	-.56*	-.26	INC	.43	MAS (-).68
St&Sh 95	.27	-.34	.44*	-.33	-.69***	-.23	UAI (-)	.47	
St&Sh 97	.26	-.26	.54*	-.20	-.64***	-.14	UAI (-)	.40	
St&Sh 99	.02	-.11	.26	-.21	-.54*	-.06	UAI (-)	.29	PDI .51
Unit Trusts 91	-.58*	.33	-.58*	-.05	.40	.07	IDV (-)	.34	
UT/MF 95	-.23	.05	.20	-.23	-.24	.73***	LTO	.54	
UT/MF 97	-.33	.16	.08	-.24	-.11	.78***	LTO	.61	
UT/MF 99	-.33	.17	-.04	-.26	-.04	.82***	LTO	.67	MAS (-).77
Pr pension 91	.34	-.35	.42	-.37	-.57*	-.31	UAI (-)	.33	
Pr pension 95	-.19	-.37	.11	.41	-.40	.22	None		
Pr pension 97	-.22	-.16	.10	.45*	-.26	.15	None		
Pr pension 99	-.22	-.17	.11	.47*	-.27	.21	None		
Prec metals 95	.34	-.28	-.29	.59*	.24	-.30	MAS	.34	
Prec metals 97	-.09	.23	-.48*	.29	.55	.26	UAI	.30	
Prec metals 99	-.10	.27	-.18	.22	.38	.37	None		
Collections 95	.28	-.48*	-.29	.38	.10	.05	None		
Collections 97	-.12	-.14	-.62**	.35	.43	.05	IDV (-)	.38	
Collections 99	-.02	-.09	-.53*	.32	.47	-.09	IDV (-)	.28	
Payment days									
Av agreed	-.55*	.69***	-.30	.27	.62**	.23	PDI	.47	
Av actual	-.66***	.73***	-.40	.25	.68***	.27	PDI	.54	INC (-) .70

A8. VALUES

From various sources answers to value statements were collected. From two sources comparative data can be used. (1) From Eurobarometer reports time series for comparative answers to questions on general satisfaction with life; (2) From the World

Values Surveys a number of values clustered in groups of 18 feeling/attitudes, 12 motives/needs, 15 norms/moral statements and 4 attitudes toward the environment.

A8.1. General life satisfaction

Data Eurobarometer Trend Variables 1974 - 1994 and Eurobarometer Reports 45, 47 and 49. "On the whole, are you very satisfied, fairly satisfied, not very satisfied or not at all satisfied with the life you lead?" Percent answers "very satisfied" are used for calculations. Data 1973-1984 are for 8 countries (Belgium, Denmark, France, Germany, Ireland, Italy, Netherlands, UK); data 1985 - 1994 are for 10 countries (Spain and Portugal added); data from 1996 onwards are for 13 countries (Austria, Finland and Sweden added). The same data were taken from the Eurobarometer report "The Young Europeans in 1997".

Table A.135 CVs General life satisfaction			
Year	<u>Coefficient of variation</u>		
1973	.53		
1975	.53		
1976	.50		
1977	.53		
1978	.50		
1979	.52		
1980	.55		
1981	.54		
1982	.47		
1983	.54		
1984	.53		Mean convergence-divergence = 0
1985	.61		
1986	.61		
1987	.58		
1988	.57		
1989	.58		
1990	.52		
1991	.52		
1992	.60		
1993	.62		
1994	.68		Mean divergence per year = 1.03%
1996	.61		
1997	.61		
1998	.63		Mean divergence per year = 1.06%
Young Europeans 1997		.58	

Table A.136 General life satisfaction: "very satisfied with life". Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
1973	.07	-.50	.12	-.40	-.58	-.11	None			
1975	.35	-.46	.25	-.52	-.56	-.27	None			
1976	.36	-.53	.18	-.65*	-.56	-.09	None			
1977	.30	-.58	.14	-.56	-.61	-.14	None			
1978	.27	-.62*	.24	-.59	-.66*	-.03	None			
1979	.20	-.52	.11	-.60	-.50	.04	None			
1980	.21	-.60	.33	-.66*	-.65*	-.01	None			
1981	.22	-.59	.27	-.67*	-.63*	-.11	None			
1982	.17	-.73*	.26	-.61	-.80**	-.17	UAI (-)	.63		
1983	.21	-.76*	.20	-.64*	-.80**	-.15	UAI (-)	.64	MAS (-)	.86
1984	.24	-.69*	.23	-.66*	-.73*	-.09	UAI (-)	.53		
1985	.60*	-.80***	.55 ^{ns}	-.39	-.82***	-.26	UAI (-)	.68		
1986	.51	-.78***	.42	-.46	-.79***	-.22	UAI (-)	.62	MAS (-)	.82
1987	.53	-.67*	.47	-.47	-.70*	-.19	UAI (-)	.49		
1988	.36	-.72**	.51	-.47	-.76***	-.18	UAI (-)	.58	MAS (-)	.79
1989	.44	-.71*	.64*	-.44	-.78***	-.18	UAI (-)	.61	MAS (-)	.78
							Pred. 3:		IDV	.92
1990	.32	-.77***	.53	-.38	-.79***	-.19	UAI (-)	.62		
1991	.32	-.71**	.55*	-.37	-.73**	-.14	UAI (-)	.53		
1992	.28	-.78***	.47	-.46	-.79***	-.17	UAI (-)	.62	MAS (-)	.82
1993	.40	-.80***	.52	-.46	-.81***	-.24	UAI (-)	.65	MAS (-)	.84
1994	.36	-.73**	.56*	-.43	-.78***	-.29	UAI (-)	.61	MAS (-)	.78
1996	.48*	-.68***	.49*	-.40	-.79***	-.14	UAI (-)	.63		
1997	.31	-.66**	.48*	-.48*	-.87***	-.06	UAI (-)	.75		
1998	.43	-.69***	.47	-.44	-.82***	-.14	UAI (-)	.68		
Yng 97	.26	-.57*	.40	-.51*	-.79***	.03	UAI (-)	.62		

Data on satisfaction with work, free time, financial situation, housing and perceived health, are from the Eurostat Annual Report 1996. Data are for 10 countries, Europe.

Table A.137. CVs Satisfaction with aspects of life, Europe 10

Satisfaction with:

Work	.20
Free time	.25
Financial situation	.30
Housing	.55
Perceived health	.53

Table A.138: Satisfaction with various aspects of life, Europe 10: Income and cultural variables

	INC	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
<u>Satisfaction with:</u>										
Work	.67*	-.63*	.76**	.08	-.61*	-.08	IDV	.58		
Free time	.84***	-.49	.71*	-.23	-.59*	-.36	INC	.71		
Financial sit.	.79***	-.58*	.61*	-.40	-.67*	-.41	INC	.63	UAI (-)	.80
Housing	.87***	-.54	.61*	-.43	-.56*	-.27	INC	.75		
Perc. health	.43	-.75**	.53	.02	-.85***	-.51	UAI (-)	.72		

A8.2. World Values Survey

From: Human Values and beliefs: A Cross-Cultural Sourcebook. Political, Religious, Sexual, and Economic Norms in 43 Societies: Findings from the 1990-1993 World Values Survey. (Inglehart et al. 1998). 49 responses to value statements were selected because of a possible relationship with consumer values. Value statements/questions selected are those which are expected to be useful for comparison with consumer behavior findings. Those with low percents answers (below 10%) were not used. Only for 26 countries¹ data could be used as for others no cultural dimension scores are available.

- V7. How important are the following in your life? % “very important”. Leisure.
- V12-V17. Statements about the environment. Percentage “strongly agree” or “agree”. (1) Income: “I would give part of my income if I were certain that the money would be used to prevent environmental pollution.” (2) Taxes: “I would agree to an increase in taxes if the extra money is used to prevent environmental pollution”. (3) Government: “The Government has to reduce environmental pollution but it should not cost me any money.” (4) Anxious: “All the talk about pollution makes people too anxious.”
- V29. Please look carefully at the following list of voluntary organizations and activities and say which, if any, do you belong to.” % “Belong to”: Sports or Recreation.
- V58. Thinking about your reasons for doing voluntary work, how important has been the following reason in your own case? % “very important”. Duty. “A sense of duty, moral obligation.”
- V83. Health: “All in all, how would you describe your state of health these days?” % “very good” and “good”.
- V86-V90. “We are interested in the way people are feeling these days. During the past few weeks, did you ever feel....Percentage “yes”. (1) Proud: “...feel proud because someone had complimented you on something you had done?” (2) Lonely: “...feel lonely or remote from other people?” (3) Accomplishment: “...feel pleased about having accomplished something?” (4) Top of World: “...feel on top of the world/feeling that life is wonderful?”
- V94. Trust: “Generally speaking, would you say that most people can be trusted or that you can’t be too careful in dealing with people?” % “most people can be trusted”.
- V95. Free choice/Control. “Some people feel they have completely free choice and control over their lives, and other people feel that what they do has no real effect on what happens to them. Please use the ten-point scale (1=none at all and 10=a great deal) to indicate how much freedom of choice and control you feel you have over the way your life turns out. (% “a great deal”).
- V97. Failure own fault. “Why are there people in this country who live in need?. here are four possible reasons. Which one do you consider to be most important?” Percentage “Because of laziness and lack of will power.”
- V99-V112. “Here are some aspects of a job that people say are important. Which ones do you personally think are important in a job?” (% mentioned). (1) Good pay; (2) Pleasant people; (3) No pressure; (4) Job security; (5) Meet people; (6) Achieve something; (7) Responsible job; (8) Job interesting.
- V115. Pride. “How much pride, if any, do you take in the work you do?” (% “a great

¹ India, Turkey, Chile, South-Africa, Argentina, Brazil, Mexico, Portugal, Korea, Ireland, Spain, UK, Italy, Netherlands, Belgium, Austria, France, Canada, USA, Germany, Denmark, Finland, Norway, Sweden, Japan, Switzerland.

deal”).

- V117. Freedom. “How free are you to make decisions in your job? Please use this card (1=none at all and 10=a great deal) to indicate how much decision-making freedom you feel you have.” (% “a great deal”).
- V142. Good & Evil. “Here are two statements which people sometimes make when discussing good and evil. Which one comes closest to your own point of view?” (% “There are absolutely clear guidelines about what is good and evil. These always apply to everyone, whatever the circumstances”).
- V198-V210. Things that make a marriage successful. “Here is a list of things which some people think make for a successful marriage. Please tell me for each one, whether you think it is very important, rather important, or not very important for a successful marriage.” (% “very important”). (1) Living apart from your in-laws; (2) Share household chores.
- V214. Child needs parents. “If someone says a child needs a home with both a father and a mother to grow up happily, would you tend to agree or disagree?” (% “tend to agree”)
- V215. Woman needs child. “Do you think that a woman has to have children in order to be fulfilled or is this not necessary?” (% “needs children”)
- V224. Respect parents. “With which of these two statements do you tend to agree? A. Regardless of what the qualities and faults of one’s parents are, one must always love and respect them. B. One does not have the duty to respect and love parents who have not earned it by their behavior and attitudes.” (% “tend to agree with statement A.”)
- V225. Parents’ duty. “Which of the following statements best describes your views about parents’ responsibilities to their children?” % “Parents’ duty is to do their best for their children even at the expense of their own well-being.”
- V226-V236. “Here is a list of qualities which children can be encouraged to learn at home. Which, if any, do you consider to be especially important?” (1) Good manners; (2) Independence; (3) Hard work; (4) Responsibility; (5) Tolerance, respect; (6) Thrift; (7) Determination, perseverance; (8) Obedience.
- V252. State. “The state should take more responsibility to ensure that everyone is provided for.” (% “agree”).
- V254. Competition. “Competition is harmful. It brings out the worst in people.” (% “agree”).
- V266-V270. “Here is a list of various changes in our way of life that might take place in the near future. Please tell me for each one, if it were to happen whether you think it would be a good thing, a bad thing, or don’t you mind?” (% “good”). (1) Technology. “More emphasis on the development of technology”. (2) Authority. “Greater respect for authority.” (3) Natural lifestyle. “A simple and more natural lifestyle.”
- V271. Science. “In the long run, do you think the scientific advances we are making will help or harm mankind?” (% “will help”)
- V276. Confidence in the press. “For each item, how much confidence do you have in them, is it a great deal, quite a lot, not very much, or none at all?” (% “a great deal” or “quite a lot”).
- V325. Change. “When changes occur in my life, I welcome the possibility that something new is beginning.” (% “agree”).
- V326. Success. “A variety of characteristics are listed here. Could you take a look at them and select those which apply to you?” “I usually count on being successful in everything I do.” (% mentioned).

Number of countries: 24-26 (for some values data for Switzerland and South Africa N/A).

Values clustered in groups "feelings/attitudes", "motives/needs", "norms/morals" and attitudes toward the environment.

Table A.139: CVs values World Values Survey: Feelings/attitudes		
	Worldwide 26	Europe 15
Proud	.34	.38
Lonely	.43	.45
Accomplishment	.21	.20
Top of world	.46	.50
Trust	.42	.34
Control of life	.21	.15
Failure by laziness	.33	.33
Health	.17	.17
Competition	.37	.38
Science	.24	.13
Technology	.22	.20
Press confidence	.31	.26
Change	.18	.16
Success	.40	.44
Natural lifestyle	.22	.09
In-laws	.36	.23
Share hh chores	.31	.31
State	.43	.38
Average	.31	.28

Table A.140: CVs Values World Values Survey: Motives/needs		
Work	Worldwide 26	Europe 15
Good pay	.21	.11
Pleasant people	.25	.18
No pressure	.47	.42
Job security	.21	.25
Meet people	.25	.25
Achieve	.26	.23
Responsible job	.29	.25
Job interesting	.26	.16
Job pride	.41	.47
Freedom	.11	.12
Leisure	.29	.24
Sports	.54	.46
Average	.30	.26

Table A.141: CVs Values World Values Survey: Norms/morals

	Worldwide 26	Europe 15
Good&Evil	.33	.31
Authority	.42	.38
Child needs parents	.09	.09
Woman needs child	.47	.54
Respect parents	.22	.25
Parents' duty to ch.	.19	.16
Good manners	.12	.13
Independence	.41	.40
Hard work	.63	.76
Responsibility	.16	.15
Tolerance/respect	.12	.10
Thrift	.35	.34
Perseverance	.26	.23
Obedience	.34	.30
<u>Sense of duty</u>	<u>.20</u>	<u>.17</u>
Average	.29	.29

Table A.142: CVs Values World Values Survey: Environment

	Worldwide 26	Europe 15
Income	.14	.15
Taxes	.16	.18
Government	.29	.36
<u>Anxious</u>	<u>.20</u>	<u>.22</u>
Average	.20	.23

The values for which LTO becomes a predictor, when included, are: Living apart from in-laws for good marriage: LTO (-), $R^2 = .42$. Good manners: LTO (+), $R^2 = .36$

Table A.143: World Values Survey, Feelings/attitudes, Worldwide 26: Cultural variables

	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Proud	-.37*	.38*	-.01	-.41*	-.12	UAI (-)	.17		
Lonely	.34*	-.48**	.06	.29	.22	IDV (-)	.23		
Accomplishment.	-.48**	.30	-.50**	-.34*	-.44*	MAS (-)	.25	PDI (-)	.45
Top of world	-.27	.28	-.58***	-.48**	-.26	MAS (-)	.34	UAI (-)	.48
Trust	-.66***	.60***	-.26	-.69***	-.33	UAI (-)	.47	PDI (-)	.56
Control of life	-.36*	.22	-.15	-.43*	-.31	UAI (-)	.19		
Failure by laziness	.38*	-.45*	.49**	.31	.52**	MAS	.24	IDV (-)	.46
Health	-.45*	.64***	-.23	-.74***	-.44*	UAI (-)	.55		
Competition harmful	.52***	-.31	-.05	.52***	-.03	PDI	.27		
Science	.28	-.06	-.20	-.14	.02	None			
Technology	.71***	-.57***	.11	.38*	.38*	PDI	.51		
Press confidence	.59***	-.36*	.09	.17	.59***	PDI	.35		
Change	.15	-.13	-.50**	-.19	-.12	MAS (-)	.25		
Success	.34	-.37*	.02	.30	.01	None			
Natural lifestyle	-.14	.19	.15	-.11	-.36	None			
In-laws living apart	-.15	.46*	-.27	-.18	-.65***	IDV	.21		
Share hh chores	.43*	-.45*	.09	.38*	-.06	IDV (-)	.20		
State	.50***	-.49**	.24	.53***	.45*	UAI	.29		

	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Good pay	.25	.06	.20	-.01	.01	None			
Pleasant people	-.23	.31	-.31	-.25	-.26	None			
No pressure	.42*	-.35*	-.16	.19	.44	PDI	.18		
Job security	.16	-.41*	-.04	.07	.27	IDV (-)	.17		
Meet people	.04	.09	-.28	-.03	.08	None			
Achieve	-.14	.17	-.23	-.40*	-.30	None			
Responsible job	.24	-.14	-.16	-.02	.11	None			
Job interesting	-.44*	.67***	-.11	-.68***	-.59***	UAI (-)	.46	IDV	.55
Job pride	-.31	.24	-.15	-.54***	-.32	UAI (-)	.29		
Freedom dec. m	-.47**	.32	-.25	-.38*	-.09	PDI (-)	.22		
Leisure	-.56***	.57***	-.28	-.47**	-.30	IDV	.33		
Sports	-.62***	.54***	-.55***	-.68***	-.36	UAI (-)	.46	MAS (-)	.60

	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Good&Evil	.35*	.01	.29	-.11	.04	None			
Authority	.27	-.01	.12	.03	-.27	None			
Child needs parents	.50**	-.61***	.26	.67***	.30	UAI	.44		
Woman needs child	.51***	-.56***	.16	.41*	.36	IDV (-)	.32		
Respect parents	.62***	-.52***	.51***	.51***	.48*	PDI	.38	MAS	.61
						IDV (-)	.68		
Parents' duty to ch	.34*	.02	.02	.04	-.32	None			
Good manners	.24	-.43*	-.12	.07	.60***	IDV (-)	.19		
Independence	-.60***	.23	-.04	-.29	-.19	PDI (-)	.36		
Hard work	.64***	-.40*	.16	.46**	.40*	PDI	.41		
Responsibility	-.21	-.23	-.34*	.23	.08	None			
Tolerance/respect	-.45**	.47**	-.42*	-.39*	-.48*	IDV	.22	MAS (-)	.42
Thrift	-.10	-.21	.11	.23	.32	None			
Perseverance	-.17	.18	.44*	.08	.16	MAS	.19		
Obedience	.59***	-.13	-.08	.13	-.16	PDI	.34		
Sense of duty	.16	-.24	.32	.16	.09	None			

	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Income	.20	-.37*	-.59***	-.17	.19	MAS (-)	.35	IDV (-)	.48
						UAI (-)	.61		
Taxes	.09	-.26	-.61***	-.29	.17	MAS (-)	.38		
Government	.33	-.26	.37*	.61***	-.05	UAI	.37		
Anxious	.55***	-.54***	-.05	.29	.12	PDI	.30		

Table A.147: World Values Survey, Feelings/attitudes, Europe 15: Cultural variables

	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Proud	-.51*	.38	.10	-.38	.29	PDI (-)	.26		
Lonely	-.08	-.07	.33	.20	.07	None			
Accomplishment.	-.54*	.24	-.39	-.46*	-.02	PDI (-)	.29		
Top of world	-.38	.37	-.58*	-.64***	.04	UAI (-)	.41	MAS (-)	.60
Trust	-.61**	.43	-.60**	-.80***	-.06	UAI (-)	.64	MAS (-)	.81
Control of own life	-.58*	.17	-.24	-.63**	-.09	UAI (-)	.40		
Failure by laziness	-.10	-.26	.77***	.33	.31	MAS	.59		
Health	-.48*	.65***	-.22	-.76***	-.23	UAI (-)	.57		
Competition harmful	.72***	-.20	.18	.52*	.10	PDI	.53		
Science	.22	-.16	-.31	-.18	.08	None			
Technology	.59*	-.28	.16	.44*	-.40	PDI	.34		
Press confidence	.56*	-.22	-.35	.41	-.15	PDI	.32		
Change	-.27	.32	-.70***	-.46*	-.05	MAS (-)	.49		
Success	.30	-.50*	.24	.51	.37	None			
Natural lifestyle	.31	-.32	-.08	.24	-.09	None			
In-laws living apart	.35	.29	-.10	-.01	-.03	None			
Share hh chores	.40	-.41	.20	.56*	-.35	UAI	.32		
State	.51*	-.05	.40	.38	.16	None			

Table A.148: World Values Survey, Motives/needs, Europe 15: Cultural variables

	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Work/living									
Good pay	.32	-.32	.17	.26	.67***	LTO	.45		
Pleasant people	-.26	-.04	-.70***	-.36	.31	MAS (-)	.48		
No pressure	.16	-.26	-.35	.06	.78***	LTO	.60	MAS (-)	.79
Job security	-.26	-.34	-.09	-.00	.07	None			
Meet people	.02	.11	-.38	-.12	.62**	LTO	.38	MAS (-)	.58
Achieve	-.36	-.05	-.32	-.50*	.07	None			
Responsible job	-.05	-.12	-.29	-.17	.24	None			
Job interesting	-.55*	.42	-.18	-.79***	.06	UAI (-)	.63		
Job pride	-.35	-.04	-.30	-.56*	-.19	UAI (-)	.31		
Freedom dec. m	-.46*	.36	-.44*	-.65***	.03	UAI (-)	.42		
Leisure	-.50*	.65***	-.34	-.67***	.16	UAI (-)	.45		
Sports	-.50*	.40	-.55*	-.62**	.02	UAI (-)	.38		

Table A.149: World Values Survey, Norms/morals, Europe 15: Cultural variables

	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²	Pred. 2	R ²
Good&Evil	.31	-.02	.52*	.32	.12	MAS	.27		
Authority	.39	-.20	.42	.29	.05	None			
Child needs parents	.46*	-.50*	.42	.76***	.05	UAI	.58		
Woman needs child	.29	-.28	.18	.39	-.34	None			
Respect parents	.47*	-.27	.74***	.57*	.06	MAS	.55	PDI	.77
Parents' duty to ch	.60**	-.24	.19	.43	-.07	PDI	.35		
Good manners	-.15	-.10	-.12	-.10	.46*	None			
Independence	-.70***	.19	-.23	-.49*	-.38	PDI (-)	.49		
Hard work	.79***	-.50*	.31	.74***	-.02	PDI	.62		
Responsibility	-.24	-.24	-.50*	.01	.07	None			
Tolerance/respect	-.20	.39	-.41	-.57*	.34	UAI (-)	.33		
Thrift	-.20	-.12	.28	.14	.31	None			
Perseverance	-.17	.26	.19	.02	-.12	None			
Obedience	.79***	-.19	.02	.56*	-.04	PDI	.62		
Sense of duty	-.11	-.05	.71***	.18	.15	MAS	.50		

Table A.150: World Values Survey, The environment, Europe 15: Cultural variables							
	PDI	IDV	MAS	UAI	LTO	Pred. 1	R ²
Income	-.15	-.16	-.76***	-.35	.03	MAS (-)	.57
Taxes	-.30	.08	-.71***	-.54*	.03	MAS (-)	.51
Government	.61*	-.56*	.54*	.75***	-.07	UAI	.56
Anxious	.34	-.43	-.08	.29	-.26	None	

SUMMARY

CONVERGENCE AND DIVERGENCE IN CONSUMER BEHAVIOR CONSEQUENCES FOR GLOBAL MARKETING AND ADVERTISING

The central question of this dissertation is whether consumers worldwide are becoming alike or whether they remain different. In the past decades multinational companies and advertising agencies have believed in increasing universality of consumer values and behavior across countries. This belief was caused by the success of a few global brands such as Coca-Cola and Levi's. For professionals the assumption of universality of human values is convenient, as it would enable global companies to develop standardized brands with standardized marketing and advertising programs across countries. If, however, evidence is found that worldwide people's values, and thus what motivates them to prefer some products or brands to others, are different and remain different, it should be the end of standardized global advertising.

The findings reported in this dissertation are based on meta-analysis of cross-country consumption data for a large number of product categories and media. Time series data were used to measure convergence or divergence over time. Groups of countries worldwide and economically similar groups of countries were compared. Correlation and regression analysis were conducted using GNP/capita and Hofstede's (1980, 1991, 2001) dimensions of national culture to find predictors for differences in consumer behavior.

It is true that in the industrialized world incomes are converging, but convergence of consumption is limited to a few product categories that are not representative for total consumption. Several cases of convergence actually mask diversity. Convergence is mainly found from macro-institutional data and our calculations at the micro level demonstrate many instances of divergence of consumption.

Our findings are that contrary to the assumption of convergence of consumer behavior across countries, there is evidence that with converging incomes, people's habits are stable in time or even diverge. For many products, in the economically advanced countries a ceiling of convergence is reached at a certain level of wealth at a certain point in time. For the "old" products, most advanced countries reached such ceilings long ago, leaving no room for further convergence. This is reflected in ownership and usage of many products.

Over time a common pattern can be distinguished. For many new commodities initially income differences explain differences in ownership. At some point in time, the numbers of units owned per 1,000 population of countries have converged. When that point is reached, ownership and especially usage start to diverge. The differences can be explained by culture. Penetration of telephone main lines for example converges, but in Europe, even among the wealthy groups, variance across countries with respect to numbers of telephone lines per family, numbers of international calls and ownership of mobile phones is considerable. In Europe, around 1990, both ownership of television sets and cars per 1,000 inhabitants had converged. At the end of the century, countries had

diverged with respect to the numbers of television sets owned per family, ownership of wide screen TVs, viewing time and numbers or types of cars owned per family.

The patterns followed by "old" technology can be used to predict the pattern of "new" technology. New technology (e.g. computers) has not reached the final point of convergence, so differences between countries are still mainly related to national income, but its future can be predicted. We have found that the older the product category, the stronger the influence of culture is. This explains why food products are persistently culture-bound.

What is new changes fastest, what is old changes slowest. Differences in consumption of "old" products are not likely to change during our lifetime. New technology converges fast, but only at the macro level. At micro level soon after introduction of new products, usage starts to differentiate. These differences can be explained by values of national culture.

Modern processed food keeps carrying the values of the generic "old" food ingredients. Milk consumption, for example is historically related to climatic differences. Milk is an energy provider in cold climates and milk perishes easily in warm climate. Although in modern times milk can also be kept in warm climates because of refrigerators being everywhere, collective memory says that milk cannot be trusted. This lack of trust in milk products has become a cultural factor and is extended to the consumption of ice cream that varies enormously across countries in Europe. Like milk, more ice cream is consumed in the cold climates, where historically people have trusted products like milk more.

We find that three product categories have homogenized most: soft drinks, soaps and cigarettes. These three categories have been dominated by a few large Anglo-American multinationals. Convergence is likely due to the dominance of a few early multinationals and their global brands such as Coca-Cola, Procter & Gamble's and Unilever's soap brands and Marlboro cigarettes. The use of their products and brands has converged with converging incomes in Europe, but convergence has stopped at a threshold, a point where cultural factors explain the remaining differences.

Initially the early global brands have caused convergence of their categories because of their advanced marketing methods. With increased global competition the companies of these global brands searched for efficiency in operations including global standardization of their advertising. Global advertising campaigns are generally based on added value. These values are a reflection of the values of the culture of the country of origin of the advertising campaign, the culture of company management and advertising agency people who created the advertising. These values appeal more to people of cultures of similar values and less to people of different values. In particular for the volume of soft drinks and cigarettes we found variance that is strongly related to culture. These global, standardized advertising campaigns in turn are likely to have stopped the process of convergence and even have *caused* the now existing differences between countries.

Advertising meant to include universal values in reality includes culture-bound values, the values of the creator of the ads. Thus, the role of global advertising in the globalization process is different than intended. As consumer behavior varies across cultures, global standardized advertising is not equally effective in all markets. It is

wasted in markets where consumer values are different from the values of the advertising campaign. Coca-Cola and Levi's have learned this lesson the hard way. They lost market share in alien markets. Coca-Cola changed their centralized strategy into localized strategies. Levi's had to close operations in Asia.

Our findings confirm that there are no universal values. Also so-called global communities with similar values do not exist. Global homogeneous markets exist only in the mind of the international marketing manager. Even people with similar lifestyles do not behave as a consistent group of purchasers because they do not share the same values.

There also are no "new" values, caused by a "new" economy. With changing circumstances "old" values are expressed in different ways. In the new post-scarcity society, the "old" values become manifest in consumption and consumer behavior. People's values, attitudes and behavior are surprisingly stable in time. The stability of cultural values is in contrast to the expectations of economists, that with converging incomes, cultural values and habits will also converge. The opposite is true, cultural values are stable and with converging incomes they become more manifest. When people possess more or less enough of everything, they will spend their incremental income on what best fits their value pattern. The ultimate ideal of Americans is the five-car garage, the Dutch will buy more luxurious caravans (holiday trailers) and the Spanish will eat out even more than they do now. More discretionary income will give people more freedom to express themselves and they will do that according to their own, specific value patterns. This also applies to the means of the new economy.

Differences in media use across countries are persistent because media are part of peoples' culture. A strong example is newspaper readership. Since 1950 the differences in circulation of daily newspapers per 1,000 people worldwide have remained stable. Worldwide the differences are related to national wealth. In economically homogeneous areas, such as Europe, the differences in readership of newspapers are related to culture. Ownership of television sets may have converged, but differences in viewing time have not converged and are culture-bound.

Also the new media are used by people for the same purposes as they were using the old media. This is demonstrated by the influence of culture on the use of the Internet. The people who have integrated the Internet in their daily life will use it to enhance current activities. They will use it for applications they have been doing before, but the new media will enhance these activities. People will use the new media for the interests and habits they acquired in the country where they grew up. These habits are part of their national culture and they are persistent. McLuhan's (1964) philosophy of the new media innovations, that they are merely enhancements or extensions of ourselves, is still valid. The consequence of this philosophy is that new media like the Internet will not lead to convergence of values. Instead, they will lead to divergence in Europe and even more worldwide.

Consumption is related to culture. Consumption differences between countries can be understood by culture-analysis with Hofstede's cultural dimensions. Different cultural values are attached to different product categories. Value differences related to specific consumption activities can be used for segmenting markets in the global market place.

Consumer behavior is the most important area of study for marketing and advertising. Those who want to sell to or communicate with consumers must know what moves them.

During the 20th century plenty of theories have been developed on what moves consumers within their cultural environment. Little has been done to compare consumer behavior across cultures.

The problem is that in consumer behavior theory, culture is merely viewed as an environmental influence on consumer behavior, while our findings demonstrate that culture influences the central values of people that in turn influence consumption and consumer behavior. Modern marketing uses these central values for developing effective marketing and advertising programs. When developing programs for global markets, marketers must - but more often do not - realize that programs reflecting their own values are likely to be less effective in markets where people have different values.

The findings of our study can be generalized for international market development theory and can be applied to strategy development. Branding strategies are cultural phenomena and so are market research methods. For efficiency purposes, cultures can be clustered according to cultural values. Finally, our findings can be used for understanding the effectiveness of public policy measures.

SUMARIO

CONVERGENCIA Y DIVERGENCIA EN EL COMPARTAMIENTO DE CONSUMO. CONSECUENCIAS PARA EL MARKETING Y LA PUBLICIDAD GLOBAL

El tema central que se aborda en esta tesis doctoral es si los consumidores en diferentes lugares de mundo cada vez se comportan de manera más parecida o si, por el contrario, las diferencias en el consumo permanecen. En décadas pasadas, tanto las compañías multinacionales como las grandes agencias de publicidad han creído en la creciente universalización de los valores y comportamientos de consumo entre países. Esta creencia estaba apoyada por el éxito de unas pocas marcas globales, como por ejemplo Coca Cola y Levi's. Para los profesionales, la aceptación de la universalidad de los valores humanos es conveniente, ya que facilita a las compañías globales el proceso de estandarización de marcas, a través de la estandarización de programas de marketing y campañas de publicidad en diferentes lugares. Pero, si se demostrase que los valores de la gente, y por tanto lo que hace que prefiera unos productos o marcas a otras, son diferentes y se mantienen distintos según países, eso significaría el fin de la publicidad global estandarizada.

Los hallazgos que se muestran en esta tesis doctoral están basados en un meta-análisis de los datos de consumo de un gran número de categorías de productos en distintos conjuntos de países. El análisis de series temporales de esos datos permite medir la convergencia o divergencia a lo largo del tiempo. Se comparan distintos grupos de países, desde una agrupación mundial hasta conjuntos formados por países más homogéneos desde el punto de vista económico. Se han realizado diversos análisis de correlación y regresión utilizando datos referidos al PIB/per capita y a las dimensiones culturales nacionales establecidas por Hofstede (1980, 1991, 2001), con el propósito de encontrar predictores de las diferencias en el comportamiento de consumo.

Es una realidad que entre los países del mundo industrializado las rentas convergen, pero la convergencia en el consumo se limita a unas pocas categorías de productos, que no son representativas de todo el consumo. De hecho, algunos casos de convergencia realmente enmascaran diversidad. La convergencia se encuentra fundamentalmente en el análisis de datos agregados, macro-institucionales, mientras que el estudio de niveles micro, de consumos particulares, se demuestra que existen muchos casos de divergencia.

El resultado de la investigación es que, contrariamente a lo que se asume respecto a la convergencia del comportamientos de consumo entre países, existen evidencias de que conforme las rentas convergen, los hábitos de consumo de la gente permanecen estables en el tiempo o incluso divergen. Para muchos productos, en los países desarrollados se alcanza un techo de convergencia una vez alcanzado un cierto nivel de riqueza y pasado un cierto tiempo. Para algunos productos "antiguos", los países más avanzados alcanzaron ese techo hace ya mucho tiempo, lo que no permite que se pueda dar mayor convergencia. Este hecho se refleja en la propiedad y uso de muchos productos.

A lo largo del tiempo, se puede distinguir un patrón común. Para muchos productos básicos nuevos, al principio las diferencias de renta pueden explicar diferencias en la propiedad. En algún momento en el tiempo, el número de unidades por 1000 habitantes logra cierta convergencia entre países. Llegado ese momento, las divergencias en torno a la propiedad y sobre todo al uso comienzan a ser importantes. Esas divergencias pueden ser explicadas por la cultura. Por ejemplo, la penetración de líneas telefónicas converge, pero en Europa, incluso entre los grupos de países más ricos, las diferencias entre países con respecto al número de líneas por familia, número de llamadas internacionales y propiedad de teléfonos móviles son considerables. En torno a 1990, en Europa tanto el número de aparatos de televisión como de coches por 1000 habitantes había alcanzado la convergencia. Al finalizar el siglo, los países divergen en cuanto al número de aparatos de televisión por familia, en cuanto a la propiedad de determinado tipo de pantallas, tiempo de visión, o lo mismo respecto al número y tipo de coches por familia.

El patrón que siguen las “viejas” tecnologías puede ser utilizado para predecir el patrón de la “nuevas”. Las nuevas tecnologías (por ejemplo ordenadores) no han alcanzado en el tiempo el momento de la convergencia, por lo que las diferencias entre países están relacionadas todavía sobre todo con la renta nacional, pero se puede predecir cuál será su futuro. En este sentido, en la investigación hemos encontrado que cuanto más antigua es la categoría de producto, más intensa es la influencia de la cultura. Esto explica por qué los productos alimenticios están de forma persistente condicionados por la cultura (son *culture-bound*).

Lo que es nuevo cambia más rápido, y lo que es viejo cambia con más lentitud. Las diferencias en el consumo de “viejos” productos no es muy probable que cambien durante nuestra vida. Las nuevas tecnologías convergen rápido, pero sólo a nivel macro. En el micronivel, las diferencias en el uso también empiezan pronto tras la introducción de esos nuevos productos. Y estas diferencias también pueden ser explicadas desde los valores culturales.

Los modernos alimentos procesados siguen cargando con los valores de los ingredientes genéricos de los “viejos” alimentos. El consumo de leche, por ejemplo, está relacionado históricamente a diferencias climáticas. La leche es un proveedor de energía en climas fríos y tiene graves problemas de conservación en climas cálidos. Aunque en la actualidad la leche puede ser conservada con facilidad en lugares de clima cálido gracias a la extensión de los refrigeradores, la memoria colectiva parece recordar que no es un producto fiable. Esta falta de confianza en la leche y sus productos derivados se ha convertido en un factor cultural, y se extiende al consumo de productos como las cremas heladas, que varía enormemente entre los países europeos. Como en el caso de la leche, se consumen más cremas heladas en climas fríos, donde tradicionalmente la gente tiene más confianza en productos de la leche.

En la investigación se ha visto que hay tres categorías de productos cuya homogeneización entre países ha sido mayor: bebidas refrescantes, jabones y detergentes, y tabaco. Estas tres categorías han estado dominadas por unas pocas multinacionales angloamericanas. La convergencia en este caso se deba probablemente al dominio de esas pocas compañías y de sus marcas globales, tales como la Coca-Cola, las marcas de

limpieza de Procter & Gamble y Marlboro. El uso de esos productos y marcas ha convergido con la convergencia de rentas en Europa, pero esa convergencia se ha detenido en un cierto nivel, a partir del cual los factores culturales explican las diferencias restantes.

Inicialmente, las primeras marcas globales habían causado la convergencia de las categorías de productos a las que pertenecían, en especial por su utilización de avanzadas técnicas y estrategias de marketing. Pero con la creciente competencia global, las compañías de esas marcas globales tuvieron que buscar la mejora de su eficiencia operativa, en la que se incluía la estandarización de su publicidad. De hecho, las campañas de publicidad globales se basan en la necesidad de generar valor añadido. Estos valores reflejan los valores culturales de los países originarios de esas campañas, la cultura empresarial de esas compañías y de la gente que crea la publicidad. Además, apelan más a gente de culturas con valores similares y menos a gente de valores distintos. En particular, en el caso de las bebidas refrescantes, hemos encontrado variaciones que están relacionadas fuertemente con la cultura. Esas campañas de publicidad globales, estandarizadas, pueden quizá haber detenido –en lugar de favorecer– el proceso de convergencia, e incluso haber causado las diferencias existentes actualmente entre países.

La publicidad que se propone trabajar con valores universales realmente lo hace con valores culturalmente condicionados. En consecuencia, el papel de la publicidad global en el proceso de globalización es diferente del que se propone. Como quiera que el comportamiento de consumo varía por culturas, la publicidad global estandarizada no es igual de efectiva en todos los mercados. Esa publicidad se desperdicia en mercados donde los valores de consumo son diferentes a los valores expuestos en la publicidad. Coca-Cola y Levi's han aprendido esta lección de la forma más dolorosa: con la pérdida de cuota de mercado en esos lugares. Coca-Cola tuvo que cambiar su estrategia centralizada para pasar a desarrollar estrategias localizadas. Levi's tuvo que cerrar sus plantas en Asia.

Nuestros hallazgos confirman que no hay valores universales. Tampoco existen las denominadas comunidades globales con valores similares. Los mercados globales homogéneos sólo existen en las mentes de los directivos de marketing internacional. Incluso la gente con similares estilos de vida no se comportan como grupo consistente de compradores, pues no comparten los mismo valores.

Tampoco existen los denominados “nuevos” valores, causados por una “nueva” economía. Con circunstancias cambiantes, los “viejos” valores se expresan en formas diferentes. En la nueva sociedad libre de escasez, los “viejos” valores se manifiestan en los hábitos de consumo y en el comportamiento del consumidor. Los valores, actitudes y comportamiento de la gente son sorprendentemente estables en el tiempo. Esta estabilidad de los valores culturales contrasta con las expectativas de los economistas, que piensan que con la convergencia de rentas, los valores y hábitos culturales también convergerán. Lo cierto es que sucede lo contrario. Los valores culturales son estables, y conforme las rentas convergen estos se manifiestan con más claridad. Cuando la gente tiene más o menos suficiente de casi todo, las personas gastarán sus incrementos de renta en aquello que mejor se ajuste a sus patrones culturales. Uno de los últimos ideales de los estadounidenses es el garaje para cinco coches, los holandeses comprarán más caravanas

de lujo para sus vacaciones y los españoles saldrán a comer y cenar fuera de casa más incluso de lo que ya lo hacen. Más renta discrecional dará a las personas más libertad para expresarse como son, y lo harán de acuerdo con sus propios y específicos valores. Y esto también es aplicable a las posibilidades de comunicación en la nueva economía.

Las diferencias en el uso de medios de comunicación entre países son también persistentes, ya que los medios forman parte de la cultura de las gentes. Un ejemplo claro es la lectura de periódicos. Desde 1950, las diferencias en la difusión de diarios por 1000 habitantes entre los países han permanecido estables. A nivel mundial, esas diferencias están relacionadas con la renta y riqueza nacional. En áreas más homogéneas según parámetros económicos, como por ejemplo Europa, las diferencias en la lectura de diarios están relacionadas con la cultura. De igual forma, la posesión de aparatos de televisión puede haber convergido, pero las diferencias en tiempo de visión no lo han hecho, ya que están condicionadas culturalmente.

También los nuevos medios son usados por las personas con similares propósitos con los que usaban los viejos medios. Esto se demuestra al analizar la influencia de la cultura en el uso de Internet. La gente que ha integrado Internet en su vida diaria lo usará para mejorar las actividades que ya realiza habitualmente, de acuerdo con los intereses y hábitos adquiridos en el país donde ha crecido. Esos hábitos son parte de su cultura nacional, y se mantienen. Las ideas de McLuhan (1964) en torno a las innovaciones en nuevos medios como simples mejoras o extensiones de nosotros mismos, son todavía válidas. La consecuencia de esas ideas es que los nuevos medios como Internet no nos conducirán a la convergencia de valores. Al contrario, serán responsables de divergencia en Europa y más todavía en el mundo.

El consumo está relacionado con la cultura. Las diferencias de consumo entre países pueden ser comprendidas a través de análisis cultural, partiendo de las dimensiones culturales de Hofstede. Valores culturales distintos se asocian a diferentes categorías de productos, por lo que las diferencias de valores relacionadas con específicas actividades de consumo pueden ser usadas para la segmentación de mercados en el mercado global.

El comportamiento del consumidor es el área de estudio más importante para el marketing y la publicidad. Aquellos que deseen vender o comunicar algo a los consumidores deben conocer a fondo qué les mueve. Durante el siglo XX, multitud de teorías se han desarrollado basándose en qué mueve a los consumidores integrados en su entorno cultural. Sin embargo, se ha hecho poco para comparar y comprender el comportamiento de consumo en diferentes culturas.

El problema ha sido que en las teorías sobre el comportamiento del consumidor, la cultura se veía como una mera influencia del entorno, mientras que nuestros hallazgos demuestran que influye en los valores centrales de la gente, que a su vez incluye en el consumo y en el comportamiento. El marketing moderno utiliza estos valores centrales para poner en marcha programas de marketing y publicidad efectivos. Al desarrollar programas orientados al mercado global, los directivos de marketing deben darse cuenta –aunque la mayoría no lo hagan– que los programas que reflejen sus propios valores con casi toda seguridad serán menos efectivos en mercados donde la gente tenga valores distintos a esos.

Los resultados de nuestro estudio pueden ser extendibles a la teoría del desarrollo de mercados internacionales y pueden ser aplicados asimismo para el desarrollo de estrategias. Las estrategias de marca son un fenómeno cultural, lo mismo que la definición y aplicación de métodos de investigación de mercados. Para el logro de la eficiencia, las culturas pueden ser agrupadas de acuerdo a sus valores culturales. Finalmente, estos hallazgos pueden ser utilizados también para comprender mejor la efectividad de determinadas acciones y medidas de políticas públicas.

SAMENVATTING

CONVERGENTIE EN DIVERGENTIE IN CONSUMENTENGEDRAG CONSEQUENTIES VOOR INTERNATIONALE MARKETING EN RECLAME

De kernvraag die wordt beantwoord in dit proefschrift is de vraag of consumenten wereldwijd hetzelfde worden of verschillend zullen blijven. In de afgelopen decennia hebben internationale ondernemingen en reclamebureaus geloofd dat er universele waarden bestaan en dat het gedrag van consumenten in verschillende landen ter wereld steeds meer op elkaar zal gaan lijken. Dit geloof was gebaseerd op het succes van enkele wereldmerken zoals Coca-Cola en Levi's. De aanname van universaliteit komt marketing en reclamemensen gelegen, want het legitimeert het ontwikkelen van wereldmerken met standaard marketing en reclame waardoor kosten kunnen worden bespaard. Empirisch bewijs dat er blijvende verschillen zijn tussen consumenten in verschillende landen met betrekking tot motieven en voorkeuren voor producten en merken zou het einde zijn van standaard wereldwijde reclame.

De resultaten van het onderzoek beschreven in dit proefschrift zijn voortgekomen uit meta-analyse van gegevens over consumptie van een groot aantal productcategorieën en media in verschillende landen. Tijdseries worden gebruikt om convergentie of divergentie van landen aan te tonen. Groepen landen wereldwijd en groepen economisch ontwikkelde landen worden vergeleken. Via statistische analyse (correlatie en regressie-analyse) met nationaal inkomen (Bruto Nationaal Product per hoofd van de bevolking) en de cultuurdimensies van Geert Hofstede (1980, 1991, 2001) worden verklaringen en voorspellingen gevonden voor verschillen in consumentengedrag.

De bevindingen zijn dat in de ontwikkelde, geïndustrialiseerde wereld landen convergeren m.b.t. het nationaal inkomen per hoofd van de bevolking. Convergentie van consumptie blijft echter beperkt tot enkele productcategorieën, die niet representatief zijn voor de totale consumptie. De schaarse gevallen van convergentie verhullen verschillen. Convergentie wordt voornamelijk gevonden op macroniveau, terwijl op microniveau veel voorbeelden van divergentie te vinden zijn.

In tegenstelling tot de veronderstelling dat het consumentengedrag in verschillende landen naar elkaar toegroeit vonden wij empirisch bewijs dat naarmate landen qua welvaart meer op elkaar gaan lijken, verschillen in het consumentengedrag even groot blijven of zelfs groter worden. In de ontwikkelde wereld wordt er bij een zeker welvaartsniveau voor veel producten op een zeker moment een plafond bereikt waarna geen verdere convergentie plaats vindt. Voor de "oude" producten hebben veel landen dat plafond lang geleden bereikt, waarna geen verdere convergentie plaats vindt. Dit is te herkennen in verschillen in bezit en gebruik van veel producten.

Er is een tijdspatroon dat geldt voor veel producten. In eerste instantie verklaart nationaal inkomen verschillen tussen landen. Op een zeker moment worden landen gelijk m.b.t. de aantallen van het product per hoofd van de bevolking. Wanneer dat punt bereikt is groeit het bezit en vooral gebruik van het product uit elkaar. De verschillen worden verklaard door cultuurvariabelen. Wereldwijd groeien landen naar elkaar toe m.b.t.

bijvoorbeeld penetratie van vaste telefoonlijnen, maar in Europa, dat redelijk homogeen is geworden m.b.t. nationaal inkomen, bestaan grote verschillen tussen landen m.b.t. het aantal telefoonlijnen per gezin, de mate waarin men internationaal telefoneert and het bezit van mobiele telefoons. Rond 1990 waren landen in Europa zo'n beetje gelijk geworden m.b.t. het aantal televisietoestellen en auto's per hoofd van de bevolking. Maar aan het eind van de eeuw waren landen uit elkaar gegroeid m.b.t. het aantal televisietoestellen per gezin, bezit van breedbeeld televisie, hoeveelheid tijd besteed aan televisie kijken en het aantal auto's per gezin.

Het ontwikkelingspatroon van "oude" technologie kan gebruikt worden voor het voorspellen van de ontwikkeling van "nieuwe" technologie. Veel producten van de "nieuwe" technologie hebben nog niet het convergentiepunt bereikt, dus de verschillen tussen landen worden nog voornamelijk verklaard door verschillen in nationaal inkomen, maar de toekomstige ontwikkeling kan worden voorspeld. Ons onderzoek laat zien dat hoe ouder de productcategorie, hoe sterker de invloed is van cultuur. Dit verklaart de sterke cultuurgebondenheid van voedsel.

Wat nieuw is verandert het snelste, wat oud is verandert het langzaamst. Het lijkt onwaarschijnlijk dat de verschillen tussen landen m.b.t. consumptie van "oude" producten binnen afzienbare tijd zullen veranderen. Nieuwe technologie convergeert snel, maar slechts op macroniveau. Op microniveau ontstaan de verschillen al snel na de introductie van een product. Die verschillen zijn cultuurbepaald.

Modern fabrieksvoedsel houdt de waarden vast van het generieke product wat eraan ten grondslag ligt. Verschillen in melkconsumptie zijn bijvoorbeeld van oorsprong verbonden met klimaatverschillen. Melk verschaft energie in koude klimaten and melk bederft gemakkelijk in warme klimaten. Hoewel in deze moderne tijd melk bewaard kan worden in koelkasten, die in de ontwikkelde landen overal aanwezig zijn, zegt het collectieve geheugen in warme klimaten dat melkproducten niet te vertrouwen zijn. Dit gebrek aan vertrouwen in melk is een culturele factor geworden en is ook van toepassing op andere melkproducten zoals consumptie ijs. Net als melk, wordt er meer ijs geconsumeerd in de landen met koude klimaten waar men melkproducten historisch meer heeft vertrouwd.

Drie van alle onderzochte productcategorieën zijn het meest homogeen, d.w.z. de verschillen in gebruik tussen landen zijn het kleinst: frisdranken, wasmiddelen en sigaretten. Die drie productcategorieën zijn gedomineerd door enkele Engels-Amerikaanse multinationale ondernemingen. De waargenomen convergentie kan toegeschreven worden aan de dominantie van die vroege multinationals en hun wereldmerken zoals Coca-Cola, de zeepproducten van Procter & Gamble en Unilever en van Marlboro sigaretten. Het gebruik van hun producten en merken in Europa convergeerde aanvankelijk met convergerende inkomens, maar de convergentie is gestopt op een zeker niveau, waarna culturele factoren de overblijvende verschillen verklaren.

We zien dus dat in eerste instantie de vroege wereldmerken convergentie hebben veroorzaakt van hun productcategorie, omdat zij ook de eersten waren die geavanceerde marketingtechnieken toepasten. Bij toenemende concurrentie op wereldniveau zochten de eigenaren van die merken naar wereldwijde efficiëntie en begonnen hun marketing en reclame te standaardiseren. Wereldwijde standaard reclamecampagnes zijn veelal gebaseerd op toegevoegde waarde. Die waarden zijn een weerspiegeling van de waarden van de cultuur waar de reclame is gemaakt, dus de waarden van het management van de

onderneming en van de creatieven van het reclamebureau. Die waarden sluiten beter aan bij culturen met vergelijkbare waarden dan bij culturen met andere waarden. Dit verschijnsel vonden wij weerspiegeld in de verschillen in volumegebruik per land van met name frisdranken en sigaretten. Deze productcategorieën worden meer gebruikt in culturen van vergelijkbare waarden als de Engels-Amerikaanse dan in culturen met afwijkende waarden. Onze bevindingen wijzen er op dat de standaard reclamecampagnes het convergentie proces van de product categorie niet alleen hebben gestopt maar zelfs de nu bestaande verschillen in gebruik hebben *veroorzaakt*.

Reclame, gebaseerd op zogenaamd universele waarden bevat in werkelijkheid cultuurbepaalde waarden, namelijk de waarden van de maker van de reclame. Als gevolg is de rol van internationale gestandaardiseerde reclame (*global advertising*) een andere dan bedoeld. Omdat landen niet hetzelfde zijn m.b.t. motieven van consumenten, werkt standaard reclame niet in alle landen even goed. Er is verspilling in landen waar de waarden van consumenten anders zijn dan de waarden in de reclame. Coca-Cola en Levi's hebben dit met schade en schande ondervonden. Zij verloren marktaandeel in veel buitenlandse markten. Coca-Cola heeft als gevolg de strategie gedecentraliseerd en Levi's heeft zich teruggetrokken uit de meeste Aziatische markten.

Onze bevindingen bevestigen dat er geen universele waarden bestaan, evenmin als er homogene doelgroepen zijn met universele waarden. Wereldwijde homogene doelgroepen bestaan alleen in de geest van de internationale marketing manager. Zelfs mensen met vergelijkbare levensstijlen in verschillende landen gedragen zich niet als een consistente groep kopers omdat zij niet dezelfde waarden hebben.

Er ontstaan geen "nieuwe" waarden, veroorzaakt door een "nieuwe economie". Bij veranderde omstandigheden komen "oude" bestaande waarden anders tot uitdrukking. In een nieuwe economie van overvloed worden de "oude" waarden manifest in consumptie en consumentengedrag. Waarden en attitudes van mensen blijken verbazend stabiel te zijn in de tijd. Die stabiliteit van waarden is anders dan verwacht door economen en sociologen, die veronderstellen dat bij convergerende inkomens tussen landen ook culturele waarden en gebruiken zullen convergeren. Het tegengestelde is waar: culturele waarden zijn stabiel en bij groeiende welvaart worden zij manifest. Als mensen zo'n beetje van alles voldoende hebben om goed te kunnen leven, zullen zij hun extra besteedbaar inkomen uitgeven aan de dingen die het best aansluiten bij hun waardenpatroon. Het ultieme ideaal van de Amerikaan is een garage voor vijf auto's, Nederlanders kopen nog luxer caravans en Spanjaarden gaan nog vaker en duurder en met nog meer mensen uit eten. Additioneel inkomen geeft mensen grotere vrijheid van expressie en dat doen ze volgens hun eigen, specifieke waardenpatronen. Dit verschijnsel is ook van toepassing op de middelen van de nieuwe economie.

Verschillen in mediagebruik tussen landen zijn hardnekkig omdat media deel uitmaken van de cultuur van landen. Een voorbeeld is het lezen van kranten. Sinds 1950 zijn de verschillen in oplagen tussen landen min of meer hetzelfde gebleven. De verschillen wereldwijd zijn gerelateerd aan nationaal inkomen. Maar in de ontwikkelde wereld en vooral in economisch homogene gebieden zoals Europa zijn verschillen in het lezen van kranten cultuurbepaald. Het bezit van televisietoestellen in landen is naar elkaar toegegroeid, maar de verschillen in kijktijd niet en die zijn gerelateerd aan cultuurverschillen.

De nieuwe media worden door mensen gebruikt voor dezelfde doelen als waarvoor zij de oude media gebruikten. De invloed van cultuur op het gebruik van het Internet is daarvan een mooi voorbeeld. De mensen die het Internet hebben geïntegreerd in hun dagelijks leven gebruiken het om hun bestaande activiteiten leuker te maken. Zij gebruiken het Internet voor activiteiten en interesses die zij ontwikkelden in de cultuur waarin zij opgroeiden. Die gebruiken maken deel uit van hun nationale cultuur en zijn hardnekkig. McLuhan's (1964) filosofie dat de nieuwe media voornamelijk een benadrukking en verlenging van onszelf zijn is nog steeds geldig. De consequentie van deze filosofie is dat nieuwe media zoals het Internet niet zullen leiden tot convergentie van waarden. Integendeel, zij zullen eerder leiden tot divergentie, in Europa en nog sterker wereldwijd.

Consumptie is gerelateerd aan cultuur. Verschillen in consumptie tussen landen kunnen verklaard worden door cultuuranalyse met behulp van Hofstede's cultuurdimensies. Verschillende productcategorieën hangen samen met verschillende culturele waarden. Aan de hand van die waardenverschillen kunnen internationale markten gesegmenteerd worden.

Consumentengedrag is het belangrijkste studieterrein voor marketing en reclame. Wie wil verkopen aan of communiceren met consumenten moet weten wat hen motiveert. In de 20ste eeuw zijn er vooral theorieën ontwikkeld over consumentengedrag in hun eigen culturele omgeving. Er zijn weinig theorieën ontwikkeld over consumentengedrag tussen culturen.

Het probleem is dat in de gangbare consumentengedragstheorieën cultuur slechts wordt gezien als een omgevingsfactor die het consumentengedrag beïnvloedt. Resultaten van ons onderzoek laten zien dat cultuur de centrale waarden van mensen bepaalt, die op hun beurt hun consumptiegedrag bepalen. Tegenwoordig worden die centrale waarden gebruikt voor het ontwikkelen van effectieve marketing en reclame. Bij het ontwikkelen van marketing- en reclamestrategieën zullen marketingmensen zich - meer dan ooit - moeten realiseren dat campagnes die hun eigen waarden weerspiegelen minder effectief zullen zijn in markten waar mensen andere waarden hebben.

De resultaten van deze studie kunnen worden gegeneraliseerd voor de theorie van marktontwikkeling and kunnen worden gebruikt voor internationale strategieontwikkeling. Merkenstrategieën zijn expressies van cultuur evenals methoden van marktonderzoek. Voor grotere efficiency kunnen culturen geclusterd worden volgens culturele variabelen. Onze bevindingen kunnen ook worden toegepast op publieke besluitvorming indien, zoals vaak gebeurt, daarbij naar voorbeelden van andere landen wordt gekeken.

Marieke de Mooij
Universidad de Navarra, 4 mei 2001