Social location and value priorities. A European-wide comparison of the relation between social-structural variables and human values.

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Introduction

Since the inception of the social sciences, scholars have been convinced of the theoretical and empirical usefulness of the value concept. Canonical sociologists, such as Durkheim or Weber, already noted the crucial role values play in the organization of social life (Schwartz 2006). Human values have been described as pivotal components of the individual's personality, acting as guiding principles for both attitudes and behaviour (Inglehart 1977, 1990; Mayton, Ball-Rokeach & Loges 1994; Rokeach 1973). Past research demonstrated that values are good predictors for numerous other variables, such as attitudes toward out-groups (Davidov et al. 2008; Sagiv & Schwartz 1995), political tolerance (Golebiowska 1995), voting behaviour (Barnea & Schwartz 1998; Rokeach 1973) or life styles (Rokeach 1973).

Despite its paramount importance, the value concept has not always received the scientific attention it might deserve. It is remarkable that certain aspects of value theory have been tested only very rarely. In this sense, Hitlin and Piliavin (2004) speak of values as a dormant concept that needs to be revived. These authors give several reasons for the relative neglect of values in social science. Besides the incoherence in the way values have been conceptualized in the past, value research has also suffered from the absence of an agreed-upon scale to measure values.

In this contribution, we focus on one of these aspects of value theory that has remained relatively underexposed, namely the relation between individual social location and human values. Does one's position in the social structure—indicated by socio-demographic variables such as age, gender, education and income—affect the values that one prioritizes? We pay special attention to the cross-cultural robustness of the relation between social location and values: Can similar patterns be detected in various European countries? Or do cross-national differences in the relation between structure and values depend on elements of the national context?

We depart from Schwartz' (1992, 1994, 2006) theory of human values, and make use of the value scale included in the European Social Survey (ESS). We believe that this study adds up to existing research in various ways. First, an exceptionally wide range of European countries is taken into account, including various Eastern European countries. Second, we take up the issue of the cross-cultural equivalence of the measurements. Prior to substantive analysis, we test to what extent different cultural interpretations of values affect the validity of cross-national comparisons. Third, to the best of our knowledge, this is the first study that explicitly addresses the question whether national context affects the relation between social location and values.

1. Human value theory

Although various conceptualizations of values have been proposed (see, for example, Inglehart 1977; Kluckhohn 1951; Rokeach 1973; Schwartz 1992), the different formulations share some key components. Kluckhohn (1951: 395) describes values as '*a conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the* desirable *which influences the selection from available modes, means, and ends of action*'. Schwartz (1994: 21) similarly defines human values as '*desirable transsituational goals, varying in importance, that serve as guiding principles in the life of a person or other social entity*' (Schwartz 1994: 21). Values are thus beliefs that some end-state or mode of conduct is preferable over another end-state or mode of conduct (Rokeach 1973). As a consequence, they guide selection or evaluation of behaviour and events (Schwartz & Bilsky 1987). Because values transcend specific situations, they occupy a central position within the personality of an individual (Hitlin & Piliavin 2004). A minimal level of value stability is necessary for the continuity of personality and society (Rokeach 1973).

In this contribution, we specifically draw on Schwartz' (1992) formulation of human value theory. Schwartz (1992) postulated a theory that describes 10 basic types of human values that are distinguished by their motivational goals (see Table 1). One of the most appealing features of Schwartz' theory is the integration of basic value types into a broader value system. The dynamic relations between the motivational types are represented by a classification of the 10 value types into a circular continuum (see Figure 1). Adjacent value types share some motivational emphases and are therefore compatible, while values that are further away are often more conflicting or even diametrically opposed. Universalism and benevolence, for example, share transcendence of selfish interests, while the opposite value type 'achievement' focuses on personal success (Schwartz 1994). The (quasi-)circular structure also makes it possible to

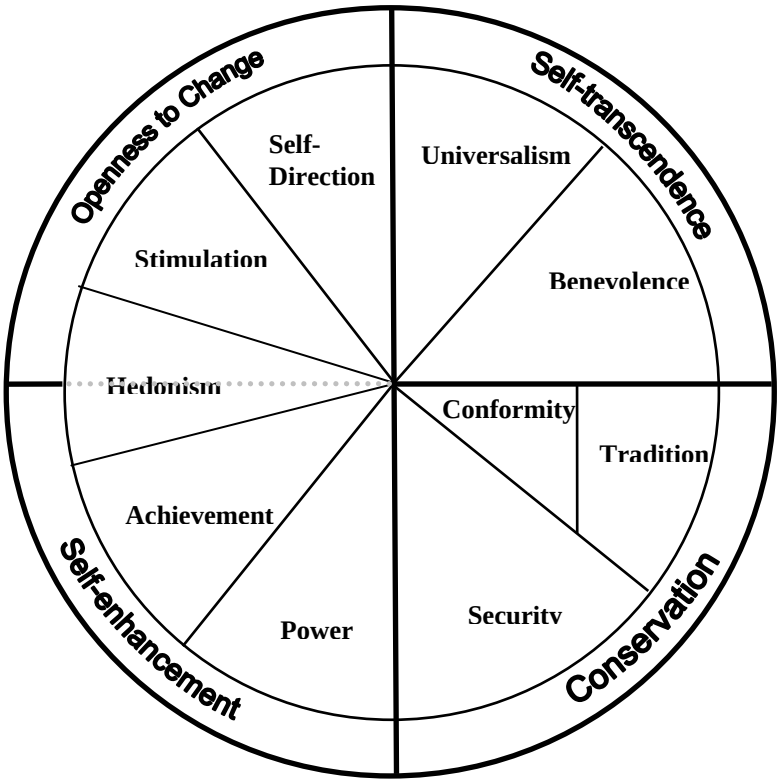
distinguish four higher-order value types that can be ordered along two orthogonal dimensions: openness to change vs. conservation and self-enhancement vs. self-transcendence (Schwartz 1992).

Table 1. Schwartz' ten basic human value types and their motivational emphases

Value type	**Motivational emphasis**
Power	Social status and prestige, control or dominance over people and resources
Achievement	Personal success through demonstrating competence according to social standards
Hedonism	Pleasure and sensuous gratification for oneself
Stimulation	Excitement, novelty and challenge in life
Self-direction	Independent thought and action - choosing, creating and exploring
Universalism	Understanding, appreciation, tolerance and protection for the welfare of all people and for nature
Benevolence	Preservation and enhancement of the welfare of people with whom one has frequent personal contact
Tradition	Respect, commitment and acceptance of the customs and ideas that traditional culture or religion provide
Conformity	Restraint of actions, inclinations and impulses likely to upset or harm others and violate social expectations or norms
Security	Safety, harmony and stability of society, or relationships, and of self
Source: Sagiv and Schwartz (1995: 438)	

Recently, Schwartz et al. (2001) developed the Portrait Values Questionnaire (PVQ). This measurement instrument for human values can be applied in large population surveys since it does not demand a high level of abstract thinking. The PVQ was validated in many cultures (Schwartz et al. 2001). In the vast majority of the samples, the hypothesized circular structure was found. This supports the claim that at least some aspects of the content and structure of human values are universal (Schwartz 1994).

Figure 1. Structural relations among the 10 values and the two dimensions



2. The relation between social-structural variables and human values

There exist good theoretical reasons to expect that value priorities are not evenly spread across the population, but rather relate to social-structural variables. An individual's position in social structure can be seen as a matrix of specific risks and resources. The risks that persons are running, as well as the resources they dispose of to protect themselves from these risks, determine to some extent the end-goals that they are likely to find important. In this sense, values represent a person's strategy to respond to his or her

position in the social structure. Concrete life experiences offer opportunities to stress certain values more than others (Schwartz 2006).

This argument is also central to Inglehart's (1977, 1990) seminal work on the materialism / post-materialism value dimension. Inglehart explicitly links the endorsement of certain values to Maslow's need hierarchy. Individuals, whose basic physiological needs (e.g. sustenance or safety) are not fulfilled, tend to prioritize material values such as economic security and order. Those who can take material affluence for granted, on the other hand, place more importance on so-called post-material values (e.g. belonging, self-expression, quality of life). Self-evidently, social location plays a crucial role in the fulfilment of needs.

In this paragraph, we describe several social mechanisms (in the sense of Hedström 2005) of how social structure can affect value orientations. From these theoretical considerations, a series of hypotheses with respect to the effect of four variables indicating social location is deducted. Two of these variables are ascribed (age and gender), while two others, namely education and income, are achieved during the (early) life course.

2.1 Gender differences in endorsement of human values

Of the socio-demographic variables examined here, gender is probably the one that received most attention in value studies (Beutel & Marini 1995; Gilligan 1982; Jaffee & Hyde 2000; Rokeach 1973; Schwartz & Rubel 2005; Struch et al. 2002; Xiao 2000). In previous research, recurrent gender-specific value patterns were retrieved. Surveying data from 127 samples in 70 countries, Schwartz and Rubel (2005) found that women rather consistently attribute more importance to values pertaining to the higher order dimension self-transcendence (universalism and benevolence). Conversely, men were demonstrated to give higher priority to the higher-order dimensions openness to change (self-direction and stimulation) and self-enhancement (achievement and power). These conclusions are in line with an earlier study by Rokeach (1973), who found that females place higher value on 'a world at peace', 'happiness', 'inner harmony', and 'wisdom'—values that fit in Schwartz' self-transcendence higher order type. The males in Rokeach's (1973) study, on the other hand, gave significantly higher rankings to values such as 'an exciting life', 'a sense of accomplishment', 'freedom', 'pleasure' and social recognition'. In terms of Schwartz' (1992) theoretical framework,

these are examples of stimulation, achievement, self-direction, hedonism and power value types respectively. Beutel and Marini (1995) similarly found that females score higher on compassion and lower on materialism and competition than men.

The literature offers various explanations for the existence of gender differences in value priorities. From a social-structural point of view, the gender gap in value priorities stems primordially from the division of labour in contemporary society, leading to gender-specific roles (Struch & Schwartz 2002). Because women are more often found in domestic roles, they would give higher priority to values that entail care for others, i.e. benevolence and universalism. In their employment roles, men would rather place value on power- and status-related values. This argument is in line with a meta-analytical study by Jaffee and Hyde (2000), who demonstrated that care orientation is stronger among females. Alternatively, evolutionary psychologists argue that the evolutionary pressures have led to gender-specific cognitive and affective mechanisms (Schwartz & Rubel 2005).

2.2 Age differences in the endorsement of human values

For various reasons, value priorities can be expected to differ across age groups. First, life cycle effects are likely to be present. Throughout the course of life, the concrete circumstances in which people live can change dramatically, thereby potentially altering value priorities. As people grow older, they generally grow accustomed to certain habitual patterns. Therefore, older persons will probably put more stress on conservation values (conformity, tradition, security). Conversely, values that pertain to the higher-order type ‘openness to change’—such as stimulation and self-direction—can be expected to become less of a priority at higher age. Besides that, individuals tend to become less preoccupied with their personal interests and more concerned with the welfare of others once they have children and become more involved in family life. Because of this, self-transcendence values (universalism and benevolence) can be hypothesized to gain importance in the course of life, while self-enhancement values (power, achievement, hedonism) lose importance (Schwartz 2006).

Yet, Inglehart (1971, 1990) argues that value hierarchies that are formed during early adulthood remain relatively stable during the rest of the life course. By consequence, Inglehart puts far more stress on cohort than on life

cycle effects. Older generations, that grew up in less affluent conditions and under threat of war, are expected to give higher priority to materialist values, while younger cohorts will probably prioritize post-materialist values.

Previous research gives renders ample support for differences in value priorities. Based on data from the first round of the European Social Survey, Schwartz (2006) demonstrates that in the vast majority of the 20 participating countries, correlations between age and the 10 value types go in the expected direction. This is in line with Inglehart's (1971) finding that, in six different European countries, materialist values are more prevalent among older cohorts.

2.3 Income and education effects on human value priorities

Income and education—two key indicators of socio-economic status—are expected to have rather similar effects on value priorities (Rokeach 1973), although somewhat different mechanisms are hidden behind these relations.

The relation between monetary income and value priorities is complex, as the causal direction is not clear. Following the social-structural argument, income has an effect on value priorities. Individuals lacking economic security will place more importance on self-enhancement values. Those at the higher end of the income distributions, on the other hand, are likely to take these materialist values for granted and to prioritize the post-materialist values belonging to the self-transcendence dimension (Inglehart 1977, 1990). Furthermore, monetary resources provide possibilities to act independently, explore new paths in life, and strive for excitement. Conversely, lacking monetary resources compel persons to fall back on traditional networks and ties. For these reasons, a higher income is hypothesized to correlate positively to openness to change values, and negatively to conservation values (Schwartz 2006).

The relation between income and value patterns might also run in the other direction, however. Income is pre-eminently achieved during the life course, and thus, to a certain extent, reflects personal choices. Individuals that prioritize the materialist values of the self-enhancement dimension will probably put more emphasis on economic achievement and a high income. Those adhering to self-transcendence values, on the other hand, are likely to

be economic underachievers and strive less for a high income (Inglehart 1990).[1]

For various reasons, education is expected to have similar effects as income. First, educational level is strongly related to economic security. Yet, education is a multi-facetted variable. Education enhances cognitive capacities, intellectual openness and breadth of perspective. These abilities are essential for the pursuit of motivational goals such as independent thought, creativity, and search for novelty, and are therefore closely associated to values of the higher order dimension 'openness to change'. Higher education often challenges the uncritical acceptance of current norms and traditions. Hence, a negative relation between education and conservation values is to be expected. Furthermore, education is a strong socializing agent, as school systems explicitly or implicitly transmit certain value patterns. Contemporary Western educational systems put a strong emphasis on personal achievement and performance. At the same time, education also socializes certain democratic principles such as respect for other human beings (Weil 1985). Therefore, we expect the higher educated to give a higher ranking to self-enhancement as well as self-transcendence values (Schwartz 2006).

Also here, there exists previous research that supports the expectations. Using the General Social Survey of 1988, Golebiowska (1995) demonstrates that lower educated Americans are more supportive of traditional values than their fellow-compatriots. Xiao (2000) finds that, also in the U.S., parents with a high socio-economic status put a higher value on autonomy of their children, while conformity is given more importance among the lower classes. Studying value priorities in six European countries, Inglehart (1971) reports that persons with a low socio-economic status put more emphasis on materialist, and less on post-materialist value orientations.

Table 2 summarizes the hypotheses on relations between social-structural variables (rows) and value types (columns) that were formulated in the theory

[1] It may of course also be the case that both mechanisms are at work simultaneously. It could well be that family income in early age forms value priorities. These values affect in turn in later years income. However, this possibility can only be tested by means of a panel design or information on family income during childhood. Unfortunately, both are not available in this study.

part. A '+' indicates that we anticipate a positive relationship, while a '-' refers to an expected negative relationship. '0' is used to denote that no significant relation is expected. The presence of contradictory hypotheses is referred to by a '+/-' sign.

Table 2. Summary of the hypotheses with respect to the effect of social location on value priorities

	UN	BE	CO	TR	SE	PO	AC	HE	ST	SD
Gender (*female vs. male*)	+	+	0	0	0	-	-	-	-	-
Age	+/-	+/-	+	+	+	+/-	+/-	+/-	-	-
Income	+/-	+/-	-	-	-	+/-	+/-	+	+	+
Education	+	+	-	-	-	+	+	+	+	+

+: positive effect; -: negative effect; 0: no effect; +/-: contradictory hypotheses

2.4 Cross-national differences in the relation between social location and values

So far, we have implicitly assumed that effects of social location on value priorities are universal and thus invariant over national contexts. This assumption is in line with the social-psychological approach of Schwartz (1994, 2004), who rather focuses on universal aspects of value theory than on cross-cultural differences. Drawing on the more sociological work of Inglehart (1971, 1977, 1990), however, it is far from certain whether the hypothesis of universalism is a realistic one to make. As societies are structured differently, it is possible that also the character of the relation between social structure and values varies. Through several general mechanisms, context can influence the relation between social location and values.

However, very little theoretical work has been done on reasons why the relation between social structure and values might differ across countries. Developing a detailed contextual account for the relation between the four social location variables and all value types falls beyond the scope of this paper. Rather than giving a comprehensive contextual explanation for cross-

country differences, we briefly illustrate the possibilities of contextual analysis by focussing on two specific relations in section 4.3.

3. Data

In order to test whether social location influences value patterns, and whether these effects vary across countries, we use the first three rounds of the European Social Survey (ESS; 2002-2003, 2004-2005, and 2006-2007). Preliminary analyses have shown that effects of social location on values do not change significantly over time, hence we pooled the data over different time points. 25 European countries that participated in at least 2 ESS round are included in the analysis. East and West Germany are treated as separate countries here, because their specific history has led to marked regional differences. The countries and their respective sample sizes are Austria (AT - 6,918), Belgium (BE - 5,475), Czech Republic (CZ - 4,386), Denmark (DK - 4,498), Estonia (EE - 3,506), Finland (FI - 5,918), France (FR - 5,295), East Germany(GE - 3,157), West Germany (GW - 5,548), Greece (GR - 4,972), Hungary (HU - 4,701), Ireland (IE - 6,132), Italy (IT - 2,736), Luxembourg (LU - 3,187), the Netherlands (NL - 6,134), Norway (NO - 5,546), Poland (PL - 5,547), Portugal (PT - 5,785), Slovenia (SI - 4,437), Slovakia (SK - 3,278), Spain (ES - 5,268), Sweden (SE - 5,874), Switzerland (CH - 5,985), Ukraine (UA - 4,033) and the United Kingdom (GB - 6,343).

The ESS includes 21 questions to measure the 10 value types postulated by Schwartz (1992). This battery of questions is based on the original 40-item Portrait Value Questionnaire (PVQ: see, e.g., Schwartz et al. 2001). The original set of questions was shortened to allow its inclusion in the ESS. The questions are gender-matched and double-barrelled. However, Schwartz (2003) shows that this does not have an effect on the quality of the measurements. Two questions are included to measure each value, except for universalism which is measured by three items due to its broad content. The questions describe a fictitious person and the respondent has to decide on a scale from 1 (very much like me) to 6 (not like me at all) to what extent this person is or is not like him or her (the replies were recoded so that high

scores imply high importance of the value).[2] Question wordings of the value items are given in Table 3.

The ESS contains measurements for four crucial social-structural variables as well. Age is measured in years. Gender is a dummy variable receiving the value of 1 for males and 2 for females. Education is an ordinal variable based on the ISCED coding scheme, ranging from 0 (did not complete primary education) to 6 (Second stage of tertiary). Income indicates the household's total net income. To allow cross-country comparability, the ESS provides a 12-point scale ranging from 1 (low) to 12 (high) for this variable. Additionally, we tested whether occupational status (as indicated by the EGP coding scheme, see Ganzeboom and Treiman 1996) affects value priorities. However, we hardly found any significant value differences between blue collar worker, white collar workers and those not in the labour force. Therefore, we decided to drop this variable. For several reasons, we did not include religious involvement as an independent variable in this analysis. A first argument is situated at the theoretical level. More than in the case of other variables, the direction of the relation between religiosity and values is unclear. As a result of socialization, religiosity might affect value priorities. However, because of self-selection processes, values might have an impact on the decision to become religiously involved as well. Second, religiosity is a variables of tremendous complexity, containing a great many of different dimensions (denomination, beliefs, practice,...). A serious analysis of the relation between religiosity and values merits a study in itself.

[2] Schwartz (2003) proposes to correct for individual differences in the use of the response scale by centering the values. This is necessary before mean scores of the values are compared across countries. However, in this study we do not compare mean scores, but only regression coefficients, therefore centering will not affect the results.

Table 3. Question wording for the human value scale items (Adapted from Davidov 2008)

Value type	Item # (according to its order in the ESS questionnaire) and Wording (Male Version)
Self-Direction (SD)	1. Thinking up new ideas and being creative is important to him. He likes to do things in his own original way (ipcrtiv).
	11. It is important to him to make his own decisions about what he does. He likes to be free to plan and not depend on others (impfree).
Universalism (UN)	3. He thinks it is important that every person in the world be treated equally. He believes everyone should have equal opportunities in life (ipeqopt).
	8. It is important to him to listen to people who are different from him. Even when he disagrees with them, he still wants to understand them (ipudrst).
	19. He strongly believes that people should care for nature. Looking after the environment is important to him (impenv).
Benevolence (BE)	12. It is very important to him to help the people around him. He wants to care for their well-being (iphlppl).
	18. It is important to him to be loyal to his friends. He wants to devote himself to people close to him (iplylfr).
Tradition (TR)	9. It is important to him to be humble and modest. He tries not to draw attention to himself (ipmodst).
	20. Tradition is important to him. He tries to follow the customs handed down by his religion or his family (imptrad).
Conformity (CO)	7. He believes that people should do what they're told. He thinks people should follow rules at all times, even when no one is watching (ipfrule).
	16. It is important to him always to behave properly. He wants to avoid doing anything people would say is wrong (ipbhprp).
Security (SEC)	5. It is important to him to live in secure surroundings. He avoids anything that might endanger his safety (impsafe).
	14. It is important to him that the government insures his safety against all threats. He wants the state to be strong so it can defend its citizens (ipstrgv).
Power (PO)	2. It is important to him to be rich. He wants to have a lot of money and expensive things (imprich).
	17. It is important to him to get respect from others. He wants people to

	do what he says (iprspot).
Achievement (AC)	4. It is important to him to show his abilities. He wants people to admire what he does (ipshabt).
	13. Being very successful is important to him. He hopes people will recognize his achievements (ipsuces).
Hedonism (HE)	10. Having a good time is important to him. He likes to "spoil" himself (ipgdtim).
	21. He seeks every chance he can to have fun. It is important to him to do things that give him pleasure (impfun).
Stimulation (ST)	6. He likes surprises and is always looking for new things to do. He thinks it is important to do lots of different things in life (impdiff).
	15. He looks for adventures and likes to take risks. He wants to have an exciting life (ipadvnt).

4. Analysis

4.1. Measurement and comparability of the human value scales

For various countries, it turned out impossible to identify the 10 value types postulated by Schwartz (1992; 1994). Some value types correlated very strongly with each other, and could thus not be distinguished clearly (see Davidov, Schmidt and Schwartz, 2008; Davidov, 2008). For the sake of comparability of the findings, we decided to include only six constructs in the analysis, namely 2 single values (hedonism and security), and 4 unified values (tradition-conformity, universalism-benevolence, power-achievement and stimulation-self-direction). All the unified values belong to the same theoretical dimension. Therefore, unifying them does not refute the theory. However, it suggests that the ESS does not offer enough items to distinguish between each of the single values. Had there been more than two questions per value with three for universalism in the ESS, maybe more values would have been identified in each country (as was the case, e.g., in Schwartz and Boehnke, 2004). It also suggests that the ESS value measurements cannot guarantee sufficient discriminant validity (Knoppen and Saris 2009; see also Campbell and Fiske, 1959).

Before the effects of social location on value priorities can be meaningfully compared across countries, we have to guarantee that the value constructs have been measured in a sufficiently equivalent way. Failing to establish

measurement equivalence can lead to biased comparisons and erroneous conclusions. For the relationships between constructs (like the values) and indicators (the social-structural variables) to be comparable across countries, at least metric equivalence—i.e. the equality of factor loadings—is required (Steenkamp and Baumgartner, 1998; Vandenberg and Lance 2000). However, Byrne et al. (1989) argue that not necessarily all factor loadings have to be equal across countries. For meaningful comparisons to be possible, it is sufficient to have two invariant factor loadings. This is called partial equivalence.

We tested for metric invariance using multiple group structural equation models (MGSEM; see Bollen 1989 for a detailed overview of MGSEM; Billiet 2003). We used the Amos 16.0 program (Arbuckle 2007) for this purpose. The global fit measures supported partial metric invariance of the values across countries (Chen, 2007). This allows us to compare the relationships between social-structural variables and the values in a meaningful way.

4.2 Effects of social location on value priorities

In this section, we discuss the effects of four social-structural variables on the six values. Tables 4-6 display these effects for the 25 countries in the study. All coefficient represented in Tables 4-6 come from one multi-group model with one group per country, including both measurement and structural paths.[3] Various fit indices (CFI=.904; RMSEA=0.01; Pclose=1.0; GFI=.95; AGFI=.93) show that this final model fits the data reasonably well.

As a summarizing measure, the final row of each table contains how many positive and negative significant effects are found ($p<.05$). For country abbreviations see section 3; for value abbreviations see Table 3.

4.2.1 The effect of gender on value priorities

Table 4 makes clear that strong gender differences in value endorsement exist indeed. For all six values, gender has a significant effect in a majority of the countries. In the case of five values, the gender differences are quite

[3] Due to lack of space, not all results of this multi-group model are discussed. Full results (including measurement models, distributional information on the latent variables, and covariances between latent variables) can be obtained from the authors.

universal, as they are very similar across countries. Men are, as theory predicts, more likely to emphasize values related to power and status (power/achievement), excitement and independence (stimulation/self-direction) and pleasure (hedonism). Furthermore, females give higher priority to values that entail care for others and transcendence of selfish interests (universalism/benevolence). These findings are in line with the theoretical expectations that males are more focused on material success and pleasure, while females are more care-oriented. In most countries, females also score higher on security, an effect that was not anticipated by our theoretical framework.

The gender effect on conformity-tradition values is less straightforward, as it varies considerably across countries. In eight (predominantly Eastern European) countries, a positive effect is found, meaning that females hold more traditional values than men. In five other countries, the inverse pattern is found. There is no relation between gender and the importance attributed to conformity and tradition in 11 countries. These strong country differences suggest that the effect of gender on conformity-tradition is context-dependent. Section 4.3 addresses this issue in greater detail.

Summarizing, we can say that gender is a universal determinant for five out of six value types (namely power/achievement, simulation/self-direction, hedonism, universalism/benevolence and security) across Europe.

Table 4. Effects of gender on six values (unstandardized)

	POAC		SEC		COTR		UNBE		STSD		HE	
AT	-0.28	***	0.17	***	-0.07	**	0.20	***	-0.07	**	-0.06	*
BE	-0.11	***	0.12	***	0.04		0.14	***	-0.04		-0.10	***
CH	-0.16	***	0.07	*	-0.10	***	0.12	***	-0.07	**	-0.08	**
CZ	-0.31	***	0.28	***	0.18	***	0.20	***	-0.09	**	-0.28	***
DK	-0.14	***	0.11	***	-0.07	*	0.16	***	-0.11	***	-0.11	***
EE	-0.20	***	0.15	***	0.06	*	0.15	***	-0.07	*	-0.15	***
ES	-0.21	***	0.09	***	0.01		0.07	***	-0.09	**	-0.15	***
FI	-0.29	***	0.12	***	0.10	***	0.27	***	0.00		0.02	
FR	-0.20	***	0.17	***	0.00		0.13	***	-0.13	***	-0.15	***
GB	-0.23	***	0.10	***	-0.08	**	0.13	***	-0.09	***	-0.18	***
GE	-0.22	***	0.08	*	-0.08	*	0.13	***	-0.08	*	-0.20	***
GR	-0.18	***	0.03		0.01		-0.02		-0.33	***	-0.29	***
GW	-0.20	***	0.14	***	-0.02		0.23	***	-0.05	*	-0.25	***

HU	-0.19	***	0.14	***	0.08	***	0.15	***	-0.03		0.08	**
IE	-0.22	***	0.16	***	0.05		0.13	***	-0.08	**	-0.09	**
IT	-0.06		0.09	**	0.09	***	0.12	***	-0.05		-0.09	*
LU	-0.27	***	-0.03		-0.05		0.14	***	0.03		-0.08	
NL	-0.28	***	0.04		-0.05	*	0.14	***	-0.06	*	-0.04	
NO	-0.18	***	0.17	***	0.03		0.17	***	-0.15	***	-0.13	***
PL	-0.24	***	0.12	***	0.07	***	0.09	***	-0.23	***	-0.46	***
PT	-0.22	***	-0.04		-0.04		-0.04		-0.29	***	-0.23	***
SE	-0.13	***	0.14	***	-0.04		0.24	***	-0.04		0.11	***
SI	-0.10	***	0.19	***	0.04		0.14	***	-0.03		-0.10	**
SK	-0.17	***	0.11	***	0.09	***	0.11	***	-0.14	***	-0.25	***
UA	-0.21	***	0.17	***	0.16	***	0.08		-0.17	***	-0.17	***
# sign.	+	0	+	21	+	8	+	22	+	0	+	1
effects	-	24	-	0	-	6	-	0	-	18	-	22

* p <.05; ** p < .01; *** p < .001

This table contains unstandardized effect parameters of gender on 6 latent value constructs. All effects were estimated by means of multi-group structural equation modelling.

4.2.2 The effect of age on value priorities

Age effects on human value priorities are even more outspoken. In all 25 countries, older persons hold more conformist and traditional values (conformity/tradition), and put less emphasis on power/achievement, hedonism and stimulation/self-direction. In 24 countries, the importance attributed to security increases with age (Italy is the only exception here). These striking similarities suggest that certain mechanisms of value formation are cross-culturally very robust. Evidence regarding the effect on universalism/benevolence is more mixed: Positive effects are found in 12 countries, while in three other countries (Sweden, Switzerland and West Germany) the effect is negative.

These findings are for a large part in accordance with our hypotheses. The stronger emphasis on conservation values and lower priority for openness to change confirms the idea that older persons grow accustomed to habitual patterns. Regarding self-transcendence (universalism and benevolence) and self-enhancement (power, achievement), contradictory hypotheses were formulated. According to the life cycle interpretation, the experience of

raising children makes older people less preoccupied with personal interests, leading to a higher score on self-transcendence and a lower score on self-enhancement. Conversely Inglehart's (1971, 1990) cohort argument predicts older generations—who grew up in less affluent conditions—to prioritize materialist values (such as power and achievement) over post-materialist orientations (universalism and benevolence). The results appear to support the life cycle rather than the cohort argument, and clearly contradict Inglehart's (1971) previous research. A possible explanation for the inconsistency with previous findings is that our value scales measure a different concept than Ingelhart's materialism/post-materialism value dimension.

Table 5. Effects of age on six values (unstandardized)

	POAC		SEC		COTR		UNBE		STSD		HE	
AT	-1.34	***	1.33	***	2.05	***	-0.05		-2.23	***	-2.39	***
BE	-1.37	***	1.10	***	1.76	***	0.27	***	-1.88	***	-1.74	***
CH	-1.28	***	0.95	***	1.26	***	-0.14	***	-1.94	***	-1.46	***
CZ	-2.22	***	0.83	***	1.36	***	0.15	*	-2.19	***	-2.81	***
DK	-1.56	***	0.94	***	1.58	***	0.05		-1.68	***	-1.71	***
EE	-1.61	***	0.79	***	1.37	***	0.36	***	-1.99	***	-2.53	***
ES	-0.80	***	0.72	***	1.41	***	-0.02		-1.99	***	-2.72	***
FI	-1.45	***	0.82	***	1.44	***	0.02		-2.08	***	-2.92	***
FR	-0.95	***	0.84	***	1.58	***	0.21	***	-1.63	***	-1.92	***
GB	-1.51	***	0.66	***	1.63	***	0.12	*	-1.83	***	-2.00	***
GE	-1.60	***	1.40	***	2.06	***	0.28	***	-1.95	***	-1.68	***
GR	-0.96	***	0.20	**	0.72	***	-0.04		-1.93	***	-1.97	***
GW	-1.72	***	1.00	***	1.77	***	-0.17	***	-2.04	***	-1.78	***
HU	-1.35	***	0.71	***	1.52	***	0.32	***	-2.30	***	-1.01	***
IE	-1.86	***	0.77	***	1.62	***	0.30	***	-2.08	***	-2.70	***
IT	-1.44	***	0.08		1.21	***	0.15	*	-2.16	***	-3.41	***
LU	-1.24	***	0.79	***	1.39	***	0.07		-1.70	***	-1.56	***
NL	-1.51	***	0.71	***	1.52	***	0.27	***	-1.30	***	-1.38	***
NO	-1.56	***	0.82	***	1.57	***	-0.04		-2.34	***	-2.77	***
PL	-1.25	***	0.72	***	1.37	***	0.26	***	-1.97	***	-2.78	***
PT	-0.91	***	0.19	*	0.85	***	0.01		-1.61	***	-1.75	***
SE	-1.49	***	0.63	***	1.19	***	-0.19	***	-1.68	***	-2.13	***
SI	-0.88	***	0.75	***	1.61	***	0.14	**	-1.92	***	-2.26	***
SK	-1.90	***	0.62	***	1.12	***	0.11		-2.19	***	-3.22	***
UA	-1.25	***	0.62	***	1.49	***	0.35	***	-1.42	***	-2.67	***
# sign.	+	0	+	24	+	25	+	13	+	0	+	0
effects	-	25	-	0	-	0	-	3	-	25	-	25

* p <.05; ** p < .01; *** p < .001

This table contains unstandardized effect parameters of age on 6 latent value constructs. All effects were estimated by means of multi-group structural equation modelling.

4.2.3 The effect of education and income on value priorities

Based on the theoretical framework set out above, we anticipated education and income to have very similar effects on values, although different mechanisms underlie these effects. The unstandardized effects of education are represented in Table 6, while Table 7 contains the effects of income. For three of the value constructs, income and education effects display the same pattern, although the effects of education are generally more outspoken. In a majority of the countries, education and income are positively related to prioritizing power/achievement. This supports the idea that educational systems in Europe stimulate individual achievement and performance. The generally positive income-effects enervate the hypothesis that those living in material affluence stress post-materialist values. Instead, the findings suggest that the relation runs in the other direction, and that those emphasizing self-enhancement strive less for a high income. The positive relation between income and self-enhancement is especially strong in the post-communist countries. Furthermore, those with a higher education and income put less emphasis on conformity/tradition and security. Apparently, cognitive capacities as well as monetary resources provide the means to break loose from traditional ways of life.

For three other value constructs, however, income and education effects are not running completely along parallel lines. In virtually all countries, education strongly stimulates self-transcendence (universalism/benevolence) and openness to change (stimulation/self-direction). Income, on the other hand, has a negative effect on universalism/benevolence in 13 countries, and no effect on stimulation/self-direction in a majority (17) of the countries. The effects of income and education on hedonism are harder to interpret, as the strength and even the signs of the effects differ strongly across countries. Income displays a positive effect on hedonism values in 8 countries, and a negative one in 2 countries. Education seems to temper hedonist values in 10 countries, and to reinforce them in five others.

Table 6. Effects of education on six values (unstandardized)

	POAC		SEC		COTR		UNBE		STSD		HE	
AT	0.42	***	-0.58	***	-0.49	***	0.44	***	0.70	***	-0.07	
BE	0.04		-0.44	***	-0.16	***	0.16	***	0.27	***	-0.09	
CH	0.18	***	-0.84	***	-0.59	***	0.16	***	0.56	***	-0.20	**
CZ	1.06	***	-0.02		0.24	*	0.62	***	1.17	***	0.36	**
DK	0.55	***	-1.32	***	-0.62	***	0.17	***	0.28	***	-0.33	***
EE	0.49	***	0.12		0.02		0.31	***	0.47	***	0.04	
ES	0.11	*	-0.17	**	-0.33	***	0.33	***	0.59	***	0.33	***
FI	0.16	**	-0.28	***	-0.29	***	0.10	**	0.15	**	-0.30	***
FR	-0.15	***	-0.76	***	-0.39	***	0.07	*	0.12	*	-0.21	***
GB	0.33	***	-0.50	***	-0.37	***	0.27	***	0.44	***	-0.22	**
GE	0.36	***	-0.38	***	-0.20		0.46	***	0.51	***	-0.07	
GR	0.38	***	0.17	**	0.00		0.36	***	0.78	***	0.34	***
GW	0.46	***	-0.65	***	-0.53	***	0.53	***	0.72	***	-0.19	*
HU	0.36	***	-0.08		-0.22	***	0.34	***	0.68	***	0.12	
IE	0.27	***	-0.24	***	-0.43	***	0.16	***	0.35	***	-0.18	**
IT	0.29	**	-0.34	***	-0.21	***	0.33	***	0.79	***	0.06	
LU	0.08		-0.54	***	-0.52	***	0.07		0.55	***	0.01	
NL	0.39	***	-0.72	***	-0.41	***	0.25	***	0.69	***	-0.30	***
NO	0.39	***	-0.88	***	-0.48	***	0.06		0.18	**	-0.44	***
PL	0.21	***	-0.13	**	-0.16	***	0.29	***	0.41	***	-0.17	*
PT	0.63	***	0.20	**	-0.42	***	0.48	***	0.92	***	0.85	***
SE	0.39	***	-0.51	***	-0.29	***	0.24	***	0.46	***	-0.01	
SI	0.07		-0.23	***	-0.42	***	0.32	***	0.42	***	0.08	
SK	0.99	***	0.09		0.10		0.49	***	0.97	***	0.36	**
UA	0.42	***	0.08		0.05		0.25	***	0.55	***	0.20	**
# sign.	+	21	+	2	+	1	+	23	+	25	+	6
effects	-	1	-	18	-	19	-	0	-	0	-	10

* p <.05; ** p < .01; *** p < .001

This table contains unstandardized effect parameters of education on 6 latent value constructs. All effects were estimated by means of multi-group structural equation modelling.

Table 7. Effect of income on six values (unstandardized)

	POAC		SEC		COTR		UNBE		STSD		HE	
AT	0.39	***	0.01		0.12		-0.01		0.02		0.24	**
BE	0.18	**	-0.25	**	-0.04		-0.07		0.03		0.09	
CH	0.17	**	0.02		-0.25	***	0.06		0.02		0.23	**
CZ	0.69	***	-0.01		-0.38	***	-0.18	*	0.19		0.40	***
DK	0.27	***	-0.30	**	-0.27	**	-0.01		-0.21	*	0.07	
EE	0.14		-0.76	***	-0.29		-0.01		0.17		0.37	
ES	-0.07		-0.25	**	-0.19	*	-0.17	*	-0.04		0.19	
FI	0.16	*	-0.12		-0.04		-0.09	*	-0.10		-0.07	
FR	-0.16	*	-0.39	***	-0.04		-0.22	***	-0.47	***	-0.08	
GB	0.08		-0.30	***	-0.20	**	-0.19	***	-0.36	***	-0.03	
GE	0.22	*	0.09		-0.07		0.21	**	-0.02		-0.03	
GR	0.10		-0.26	***	-0.38	***	-0.26	***	0.04		0.12	
GW	0.32	***	-0.23	**	-0.14		0.11	*	0.13		0.17	
HU	0.06		-0.16		-0.39	***	-0.39	***	-0.17		-0.05	
IE	0.19	*	-0.10		0.04		0.02		-0.07		0.19	
IT	0.19		-0.10		-0.22	*	0.02		0.23		0.78	***
LU	-0.19		0.10		0.12		0.46	***	0.31	*	0.33	*
NL	0.14	*	-0.10		-0.04		-0.09	*	0.01		0.04	
NO	-0.05		-0.45	***	-0.16	*	-0.22	***	-0.33	***	-0.21	**
PL	0.33	***	-0.11		-0.17	**	-0.10	*	0.14		0.50	***
PT	-0.29	***	-0.50	***	-0.30	***	-0.15	*	-0.24	**	-0.05	
SE	0.22	***	-0.46	***	-0.14		-0.33	***	-0.14		-0.26	**
SI	0.34	***	-0.27	*	-0.43	***	-0.03		0.38	***	0.45	***
SK	0.75	***	0.08		-0.01		-0.15	*	0.26	*	0.56	***
UA	0.71	**	0.39		0.20		0.35	*	0.35		0.27	
# sign.	+	15	+	0	+	0	+	4	+	3	+	8
effects	-	2	-	12	-	12	-	13	-	5	-	2

* p <.05; ** p < .01; *** p < .001

This table contains unstandardized effect parameters of education on 6 latent value constructs. All effects were estimated by means of multi-group structural equation modelling.

4.2.4 Explanatory power of social location

In order to be able to judge the predictive power of the social-structural variables, we calculated the proportion of explained variance (R^2) for the six value constructs.[4] The explanatory power of social location varies substantially depending on the specific value considered. Our model is relatively successful in explaining stimulation/self-direction and hedonism, as, on average over all 25 countries, explained variance amounts to 19 and 18 per cent for these variables. Prediction is far less reliable for universalism/benevolence and security. For these two variables, the proportion of explained variance is smaller than 0.10 (0.04 and 0.08 to be exact). Conformity/tradition and power/achievement are situated in between, with R^2's of 15 and 14 per cent respectively. This leads to the conclusion that one's social-structural position is especially relevant for values of the higher-order dimension 'openness to change' vs. 'conservation', and less for values pertaining to the 'self-enhancement' vs. 'self-transcendence' dimension.

4.3 Explaining the cross-country variation in social location effects

Probably one of the most interesting conclusions so far is that most effects of social-structural variables are relatively similar across countries. This is especially the case for age and gender. This illustrates that, in the European context at least, certain processes of value formation are cross-culturally robust. Yet despite these similarities, we also found some remarkable differences across countries, suggesting that some effects of social location are context-dependent. Trying to explain all possible differences would be a cumbersome task (given that we are dealing with 24 effects for 25 countries), going beyond the scope of this paper. Instead, we would like to focus on the two effects that show the most remarkable cross-country variation. In order to gain more insight in how context affects the impact of social structure, we calculate correlations between the effects and relevant context variables.

In section 4.2.1, we found strong variations in the effect of gender on conformity/tradition. In eight countries, females are found to stress traditional values significantly more than males. In six other countries, exactly the inverse pattern is found. It seems logical to assume that the nature of this effect depends on the role of women in society. From a social-structuralist point of view, gender-differences in value priorities result in the first place

[4] Due to lack of space, the R^2's are not given for every country separately.

from division of labour along gender lines. Because they are less active on the labour market and, instead, more often found in care roles, women would have different value priorities compared to men (Inglehart 1990). In countries where females are often found in domestic roles, and female labour market participation is low, for example, we can expect women to adhere more to traditional values. To test this assumption, we calculated the correlation between the effect of gender on conformity/tradition and the female labour market participation rate (as reported by Eurostat – average over the period 2002-07). Despite the small number of observations[5] this correlation coefficient is statistically significant. The negative sign confirms that in countries with low female labour market activity, females indeed have a more traditional and conformist outlook than men. A graphical representation of this relation can be found in Figure 2. The figure shows that, generally, in countries with high female participation rates a negative effect of gender on conformity/tradition is found (implying that females hold less traditional values). This is clearly the case for Sweden, Denmark and Switzerland, while Norway is an exception to this pattern. In the countries with the lowest level of female labour market participation, such as Italy, Poland and Greece, positive instead of negative effects are detected. Czech Republic is a clear outlier, combining the largest effect parameter with moderate female labour market participation.

Second, also the effect of education on hedonism was found to vary widely across countries. In five countries, education seems to stimulate a hedonist value orientation. Conversely, in ten other countries, a negative effect between education and hedonism is found. The effect of education on hedonism turns out to be negatively related to the average wealth in a country as indicated by GDP per capita.[6] Concretely, this means that positive effects of education are found predominantly in poorer countries. This is the case for Portugal, Slovakia and Czech Republic, as can be seen in Figure 2. In less affluent contexts, individuals with a higher position on the social ladder appear compelled to strive for personal pleasure and gratification. In countries with a higher GDP per capita, such as Norway, Switzerland, the

[5] Because this correlation is calculated at the national level, the number of observations equals the number of countries. East and West Germany were omitted because Eurostat does not report female labour market participation rates for regions separately. Also for Ukraine, context data is missing.

[6] Luxembourg is left out in this analysis because, due to the strong presence of the financial sector, GDP per capita widely overestimates the standard of living in this small country.

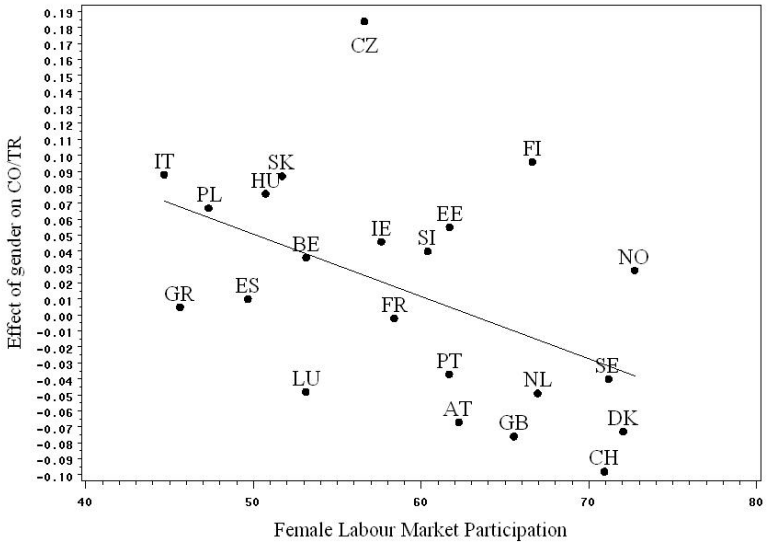
Netherlands and Ireland (see Figure 2), negative effects are found, meaning that the higher educated put less emphasis on such material values.

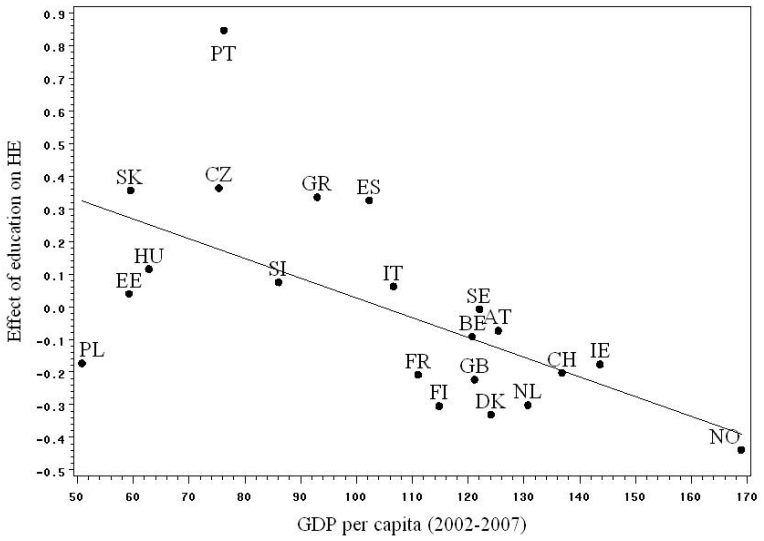
Table 7. Correlation between effect sizes and relevant context variables

	Female Labour Market Participation		GDP per capita (2002-07)	
Effect of Gender on Conformity - Tradition	-0.49	*	- -	
Effect of Education on Hedonism	- -		-0.62	**
N	22		21	

* p <.05; ** p < .01; *** p < .001

Figure 2. Relation between effects of social location and context variables





5. Discussion and conclusions

In this contribution, we focused on one of these aspects of value theory that have remained underexplored, namely the relation between social location and human values. More specifically, we asked whether four social-structural variables—age, gender, education, and income—affect value priorities. Apart from investigating the sign and strength of these relationships, this study focuses on cross-country differences in the effects of social location on values. Schwartz' (1992, 1994) theory of basic human values was taken as a theoretical point of departure. We provided theoretical arguments that justify our expectations with respect to effects of social location on values. To test these hypotheses, data pooled from the first three rounds (2002-2003, 2004-2005, and 2006-2007) of the European Social Survey is used. This data set makes it possible to compare 24 different European countries.

Before comparing the effects on the values we guaranteed that the value constructs are measured in a sufficiently equivalent way. Metric invariance is necessary to allow a comparison of the relationship between values and other theoretical constructs of interest. Our multi-group structural equation modelling approach suggests that the human values indeed display (partial) metric invariance, so that cross-cultural comparisons of effect parameters are justified. Schwartz (1992) suggested that the basic values in his theory are universal in different cultures and social contexts. It seems to be the case that also the measurement of these values displays a high level of equivalence. We proceeded with a model in which effects of social-structural variables on values were estimated while controlling for partial metric invariance.

For age and gender, most of the effects were found to be in line with our hypotheses and quite similar across countries. In the vast majority of the countries, females were found to put more emphasis on self-transcendence, while males give higher priority to self-enhancement, hedonism and self-direction. Irrespective of the cultural context, the elderly are more likely to stress conservation values, and less likely to emphasize self-enhancement, hedonism and stimulation/self-direction.

Also regarding education and income, various hypotheses stand confirmed. As expected, those with a higher educational degree and income were found to attribute more importance to power/achievement, and less importance to security and conformity/tradition. Also, the higher educated give higher priority to universalism/benevolence and stimulation/self-direction. Yet, the findings for income are not always consistent: Income did not display an

outspoken effect on the other three value constructs. Probably, education is much more closely related to certain values and shapes them in the course of life. Income may reflect life circumstances and chances as well as opportunity structures much more than a deeply anchored link to personal values.

It turns out that the explained variance is rather low for the values universalism-benevolence and security. These values may be quite independent of the social setting. Other values, and especially stimulation-self direction and hedonism are much more strongly linked to the social structure one is embedded in. For all values most of the variance remains unexplained. Probably other psychological and social-psychological mechanisms play an important role in the generation of values in the course of life. Without including them, an explanation of value priorities will remain incomplete.

One of the most important conclusions of this contribution is that, quite often, social-structural variables are found to be universal predictors of value orientations. Table 7 gives an overview of the cross-cultural robustness of the findings. The + (-) sign means that a significant, positive (negative) effect is found in18 out of 25 countries at least. Only for a minority of the cases (i.e. the three empty cells), effects are found to be not cross-culturally robust.

Table 7. Overview of the cross-cultural robust effects (statistically significant and the same sign in 18 out of 25 countries at least)

	POAC	SEC	COTR	UNBE	STSD	HE
Gender	-	+		+	-	-
Age	-	+	+		-	-
Education	+	-	-	+	+	

Despite the many similarities of social structural effects, we also detected some striking differences between countries. For two effects, we made an attempt to explore the cross-country variations in greater detail. Females were found to put greater emphasis than males on conformity/tradition in eight countries. In six other countries, the opposite pattern is found. The position of women in society, indicated by female labour market participation rates, was shown to be related to the cross-country differences in effects size. Similarly, the effect of education on hedonism was found to relate to the

wealth of a country: In poorer countries, this effect is found to be strongly negative, while in more affluent contexts positive effects are found.

To gain more insight in processes through which contexts shape the relation between social location and values, further research is needed. Although this domain is theoretically underdeveloped, the work by Inglehart offers some interesting arguments for the existence of such context effects. Inglehart (1971, 1977) argues that value differences between age groups are primarily the result of the material conditions in which the various generations grew up. If such cohort effects are present indeed, then age differences in value endorsement should reflect the economic history of a country. Changes in a country's economic situation lead to generation gaps in value priorities (Inglehart 1971: 1001). Inglehart also provides some insights on cross-country differences on the relation between income and values. Because they do not have to be concerned with sustenance, individuals with a higher income are expected to put less emphasis on materialist values, and more on self-transcendence. At the higher end of the income distribution, however, the impact of an increasing income is rather limited: Once above a certain threshold, basic material needs are fulfilled, and additional income is not expected to bring along substantial value changes anymore. Because of this ceiling effect, we could expect the relation between income and values to be stronger in countries with a lower average standard of living, where relatively small parts of the population are living in economic insecurity. These hypotheses remain to be tested in further research.

A word of caution is in place. Although we assumed and modelled the causal relationship from education, and income to certain values, it may also be the case that values determine them. Whereas age and gender are ascribed variables in which an individual is embedded since birth, education and income are characteristics that are achieved during the life course. So, in principle, one's education and income could be influenced by value patterns (although choices for educational tracks at young age are perhaps more likely to depend on value patterns of one's parents). Nevertheless, our results are contingent on the assumption that the achieved variables offer differential opportunities to stress certain values over others and that the mechanism does not work the other way round. Unfortunately, our research design cannot solve the causality puzzle.

Sociological research has so far ignored to a large extent the paramount importance that values play in the explanation of individual and social behaviour and has often focused only on the effect of socio-demographic

variables. This neglect may be partly attributed to the fact that, until recently, an agreed-upon measurement of values was absent (Davidov, Schmidt and Schwartz, 2008). The inclusion of 21 questions in the ESS to measure human values based on the value theory of Schwartz (1992) allows researchers to inspect more closely the role that values play in the formation of individual dispositions and behaviour. The finding of some robust relations between social location and values suggests that values and social-structural variables are often systematically interrelated and therefore may both play an important role in the explanation of attitudes, opinions and behaviour.

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