WORK VALUES IN WESTERN AND EASTERN EUROPE

By

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Abstract: *The paper reports on work values in Europe. At the country level we find that job satisfaction is related to lower working hours, higher well-being, and a higher GDP per capita. Moving to the micro level, we turn our attention from job satisfaction to analyse empirically work centrality and work value dimensions (without exploring empirically job satisfaction) related to intrinsic and extrinsic values, power and social elements. The results indicate substantial differences between Eastern and Western Europe. Socio-demographic factors, education, income, religiosity and religious denomination are significant influences. We find additional differences between Eastern and Western Europe regarding work-leisure and work-family centrality that could be driven by institutional conditions. Furthermore, hierarchical cluster analyses report further levels of dissimilarity among European countries.*

JEL Classification: P20, D10, J28, J17, J22

Keywords: Work values, job satisfaction, work-leisure relationship, work-family centrality, Eastern Europe, Western Europe

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I. INTRODUCTION

Humans spend a large proportion of their life-time at 'work', and the construct of 'work' plays a central role in today's society (see, e.g., Hochschild 1997). In fact, people spend (on average) around a quarter of their lives at work, which makes understanding well-being in the workplace imperative (Blanchflower and Oswald 1999). It has been a while since Marx argued that the circumstances of work are the key sources of well- and ill-being (Lane 1998), yet only a decade ago Blanchflower and Oswald (1999) noted that "the study by labor economists of job satisfaction is still in its infancy. This may be, in part, because economists are suspicious of the usefulness of data on reported well-being. However, it is known that satisfaction levels are strongly correlated with observable phenomena (such as quit behaviour)" (p. 1). Similarly, Hamermesh (2001) argue that although "other social scientists have paid attention to job satisfaction since the early twentieth century, economists have traditionally been loath to deal with subjective outcomes describing work" (p. 2). Performance of workers is often difficult to measure and therefore indirect measures such as job satisfaction can provide valuable tools for decision makers in industry and society (Sousa-Poza and Sousa-Poza 2000). Economists have suggested work satisfaction to be sub-utility function (s) in an overall utility function $u(s, l)$, where l is utility from other areas of life (see, e.g., Clark 1997, Clark and Oswald 1996). Clark (1997) cites work by Argyle (1989) which establishes job satisfaction as one of the three most important predictors of overall well-being besides marriage and family satisfaction (p. 343). The correlation between job satisfaction[1] and happiness[2] is

[1] Overall, how satisfied or dissatisfied are you with your job? (1=dissatisfied, 10=satisfied).
[2] Taking all things together, would you say you are: very happy, quite happy, not very happy, not at all happy. Our focus here is on the share of people stating that they are very happy.

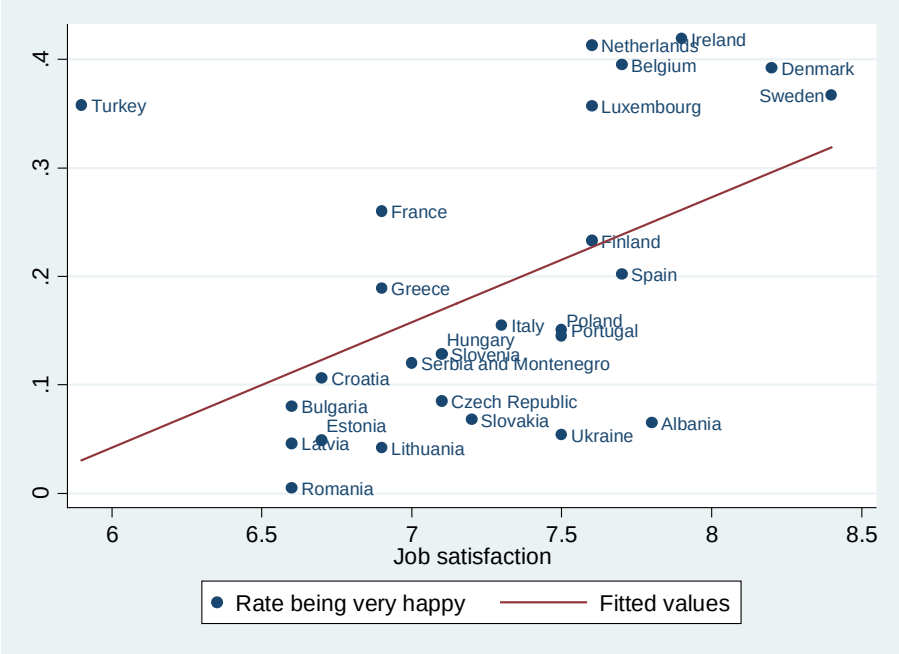
presented in *Figure 1*, using data from the *World Values Survey*[3] focusing on 26 countries (EU-15, EU New Member States, EU Accession countries (Albania, the Former Yugoslavia, and Turkey), and Ukraine as an Eastern Partnership Countries). The results indicate a relatively strong positive correlation between happiness and job satisfaction (Pearson r=0.48). If we drop Turkey (outlier), the correlation increases considerably to 0.71. Moreover, job satisfaction levels seem remarkably high for Western European countries compared with Eastern European countries.

Hamermesh (2001) stresses that only "one measure, the satisfaction that workers derive from their jobs, might be viewed as reflecting how they react to the entire panoply of job characteristics" (p. 2). It has also been argued that job satisfaction has decreased over time, highlighting the need for a better understanding of work values (Blanchflower and Oswald 1999, Rose 2005). Previous research in the US has discovered that the downward trend in job satisfaction is not due to the falling proportion of union representation or because of perceived decreases in job security (Blanchflower and Oswald 1999). Green and Tsitsianis (2005, p. 402) also point out that any "decline within a modern European nation might be regarded as surprising for an affluent economy with rising real wages. The resolution to this paradox might reside in changing aspects of jobs, whose effect on job satisfaction could have outweighed any beneficial effects of rising wages". The authors refer to two major structural changes in the industrialized economies: intensification of global competition and the diffusion of computer-based technologies among all sectors. Similarly, other researchers have argued that the world of work is rapidly changing due to global competition, high pace innovations, and the tendency towards assigning people to projects rather than to jobs. This makes work more demanding and is

[3] Country values based on averages using the first four waves.

compounded by the advent of internet and computer-based work, blurring the boundary between work and private life (van Beek et al. 2011).

Figure 1: Happiness and Job Satisfaction



Clark (1997) emphasizes that an understanding of job satisfaction provides "an additional route towards the understanding of certain important labour market behaviours" (p. 344). He declares that job satisfaction is "as close as we are likely to come to a proxy measure of utility at work, upon which a great deal of microeconomics is based" (p. 344). Classical factors more frequently used by economists (such as wages) provide only one dimension in the process of work judgement and work selection, and in understanding how a workforce increases productivity and reduces shirking and absenteeism (Jürges 2003).

In the last few decades, the exploration of job satisfaction and work values has become a very important research agenda across several fields; attracting the attention of psychology, economics, industrial relations, and management. This increased

interest is due to the high degree of correlation with job performance, meaning that job satisfaction and work values are crucial factors in the success of a firm (Judge et al. 2001). Previous research has, for example, shown a strong link between low levels of job satisfaction and quitting behaviour, absenteeism and lower work performance (Clark et al. 1998, Drago and Wooden 1992, Freeman 1978, Gordon and Denisi 1995, Judge et al. 2001). Hamermesh (2001, p. 3) stresses that one "might even reasonably imagine that the fluctuations in the "animal spirits" that are a major Keynesian motivation for business cycles arise in part from variations in workers' perceptions of their well-being. Presumably, more satisfied workers who are secure in their jobs have a reduced motive to undertake precautionary saving". The management literature has provided a long time ago evidence that individual job satisfaction and job performance are positively correlated (for a meta-study see Petty et al. 1984). The *Figures 2* and *3* show a positive relationship between job satisfaction and GDP per capita using data from two different World Values Survey waves (second and fourth wave). In both cases we observe a strong positive correlation between GDP per capita and job satisfaction (*Figure 2*: 0.54; *Figure 3*: 0.67).

Figure 2: Job Satisfaction and GDP per Capita in 1990

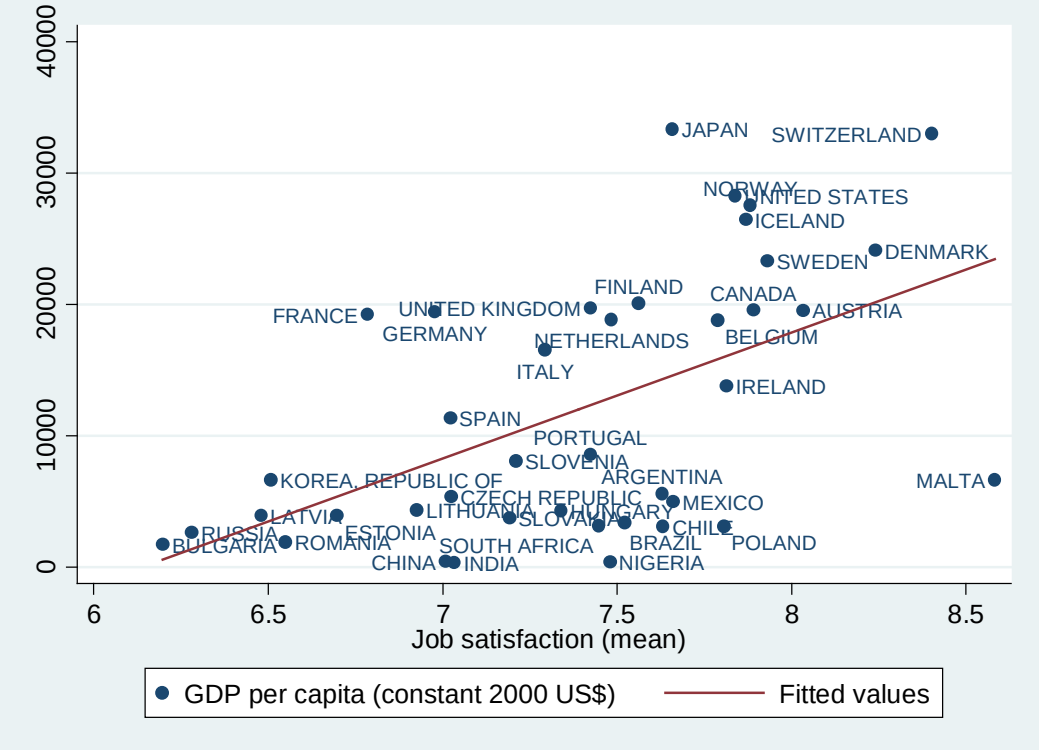
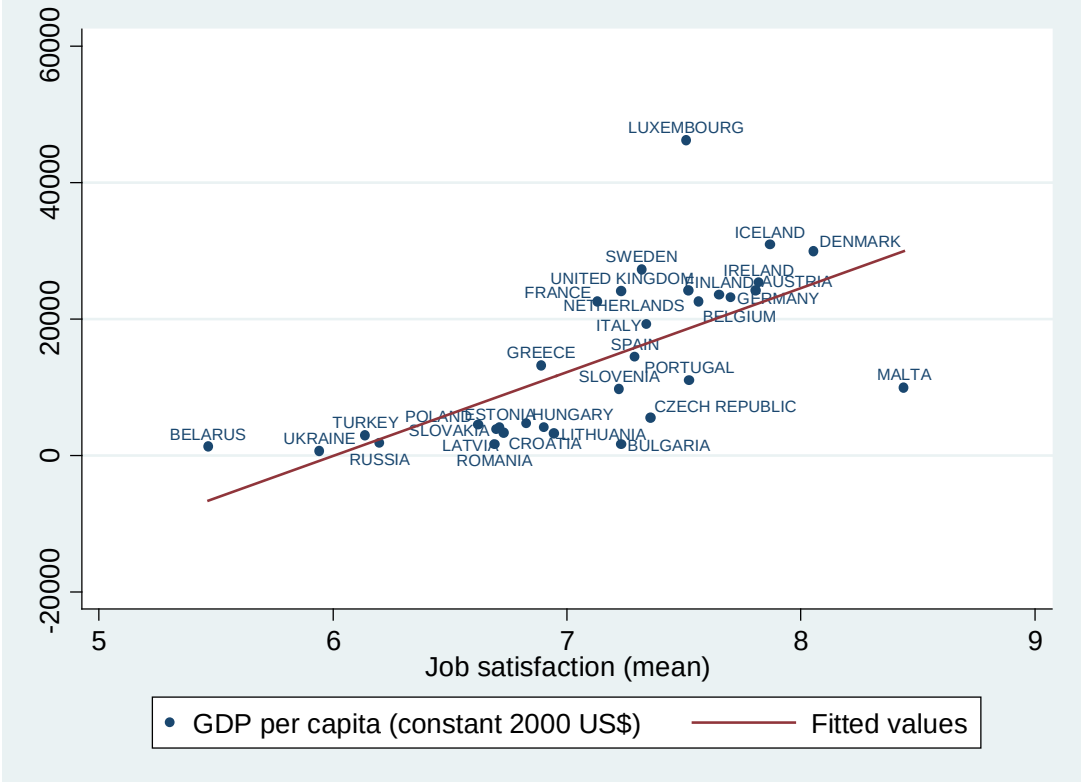


Figure 3: Job Satisfaction and GDP per capita in 2000



Wright (2006) provides an interesting overview on the emergence of job satisfaction in organizational behaviour, citing work going back more than 80 years. He stresses: "In any event, job satisfaction is, by far, the most frequently studied variable in organizational research, with more than 10,000 studies published to date" (pp. 262-263). However, while the literature on job satisfaction is extensive, the empirical investigation on (other) work values has remained scarce in relative terms. These other work values (such as intrinsic and extrinsic job factors or job centrality) have primarily been explored as factors that influence job satisfaction rather than treating them as endogenous or dependent factors. Taris and Feij (2001) provide a definition of intrinsic and extrinsic work values: "Intrinsic work values refer to the degree to which employees value immaterial aspects of their jobs that allow for self-expression as important, for example, job variety and autonomy. Extrinsic work values refer to the degree to which employees value material or instrumental work aspects, such as salary and opportunity for promotion, as important" (p. 55). We will explore an additional important element by including an analysis of social work values, which can be defined as "the degree to which employees find it important having a good relationship with their coworkers and supervisors" (p. 55).

Moreover, because most studies are country specific, the literature would benefit from more analyses using international data sets to improve the comparison between countries. The available knowledge about Eastern European countries is particularly limited, hence we apply a comparative approach to data on large set of European countries in order to reduce these shortcomings.

II. IMPORTANCE OF WORK VALUES

Values play a central role in human behaviour, shaping norms, practices, heroes, and symbols at the core of culture; influencing not only attitudes and perceptions, but also choices. Values are internalized over a lifetime as individuals are socialized from a young age within the context of a (national) culture, learning and adopting dominant values (Hattrup et al. 2007). Roe and Ester (1999, p. 5) stress that "in modern societies work values are typically considered as salient, basic, and influential…The importance of the work role in many cultures makes work values into core values that take a cardinal position in the overall pattern of values" (p. 5). The authors provide an overview of research that has focused on the study of work values. Work centrality describes the degree of the importance that work plays in a person's life and work ethics are often conceptually constructed on the belief that work is desirable and rewarding in its own right (for a discussion see Hirschfeld and Feild 2000). The history of work values or the history of comment on work values is a quite long one[4]. Work values have substantially changed over time; for example, work was not portrayed as a joy in the Old Testament, but as an activity necessary to prevent poverty and destitution (Hill 1996). Ancient Greeks or Romans viewed work as dishonourable (Hill 1996). The ancient ideal was to attain self-sufficiency and satisfaction with life, although there were some extreme philosophical views in existence (for example, the Stoics valued work as a means to serve society). The same holds true for medieval times, when work was basically seen as a punishment by God for man's original sin. Early Christian thought frowned upon an attachment to physical things of the world, naming avarice or *avaritia* (striving for accumulation of excessive wealth) as one of the "deadly sins" (Tambling 2004, Hill 1996). However,

[4] For a nice overview available online see Roger B. Hill (1996), History of Work Ethic at www.coe.uga.edu/~rhill/**workethic**/hist.htm.

this attitude changed with the formation of monasteries and more importantly and substantially with the Protestant reformers such as Luther, Calvin and Zwingli (for an overview see Schaltegger and Torgler 2010). Lipset (1992) states: "The idea that human beings should work hard because it is virtuous, or contributes to the common good, or allows them to accumulate personal possessions and wealth is a relatively recent phenomenon. Work is difficult, and the question is not why people are lazy or why they goof off but why, in absence of compulsion, they work hard" (p. 45).

In the European context, economists have focused their analyses on work hour differences between the US and Europe. Alesina et al. (2005) note that some theorists relate the increased working hours in the US to the long-standing cultural differences possibly rooted in America's puritan Calvinist heritage: "It is certainly true that New England's Puritan settlers avidly struck long-standing religious holidays off the calendar (including Christmas) and thereby increased their total work days significantly" (p. 46). However, they point out that Europeans worked longer hours than Americans up until the late 1960s. They also report results indicating no real correlation between the proportion of Protestants in a population and the average hours of work across countries. Economists have made other attempts to solve the puzzle of why work hour development differs over time between the US and Europe. Blanchard (2004) asks the important questions: "Should we interpret the large decrease in hours worked per capita in Europe as the result of preferences leading to the choice of leisure over income as productivity increased? Or should we interpret it instead as the result of increasing distortions, such as high taxes on work, an increase in the minimum wage, forced early retirement programs and so on?" (p. 6). Various factors have proved to be relevant such as taxation (Prescott 2004), unionization and regulation (Alesina et al. 2005) or individual preferences (Blanchard 2004).

Revisions of the European Directives on working time and maternity leave underscores the need to understand the importance of work in European societies and support the balance between working time and time devoted to other aspects such as family and leisure (Davoine and Méda 2009). Work hours can reflect various elements such as labour supply decisions of the individual, employer preferences (also influenced by technology), industrial relations and business cycles. Additionally, work hours have been the focus of concern regarding work-life balance in recent years (Green and Tsitsianis 2005).

Empirical results obtained by Alesina et al. (2005) indicate that the impact of taxes on labour supply disappears when controlling for unionization or labour market regulation. In an analysis of 16 OECD countries, they find a relatively strong negative correlation between hours worked and percentage of the labour force that is covered by collective bargaining agreements. Additional influences on working hours in Europe may come from the strong political power of unions over welfare state and pension system matters. Moreover, government issued regulations in European countries (e.g., France, Italy) have either forced or created incentives to reduce working hours (mandatory vacations, making it more difficult to use overtime, etc.). However, Alesina et al. (2005) stress that there "is little doubt that increasing marginal tax rates have reduced hours worked, especially through an effect on female participation in the labor force" (p. 12). However, they also argue that reasonable elasticity estimates suggest the differences in tax rates can explain no more than one-half of the discrepancy between the United States and Europe regarding hours worked (p. 24).

Blanchard (2004) points out that attribution of the decrease in hours to these increases in tax rates depends on the assumption one makes about utility and the

strength of income and substitution effects. He refers to data from Ireland where the average hours worked per worker decreased from 2140 in 1970 to 1670 in 2000 (25 percent decrease). This change cannot be blamed on a depressed labour market and an increase in tax rates as Ireland was booming during that period, experiencing major in-migration, an increase in labour participation rates and a low level of unemployment together with a small increase in the average tax rate (3 percent compared to 8 percent increase in the US). He summarizes by stating that "a large part of the decrease in hours per capita over the last 30 years in Europe reflects a decrease in hours worked per full-time worker, a choice that is likely to be made voluntarily by workers. The remaining issue is how much of this change comes from preferences and increasing income and how much comes from increasing tax distortions. I read the evidence as suggesting an effect of taxes, but with the larger role left for preferences" (p. 9). Bonatti (2008), on the other hand, contends that preferences between the EU and US were initially similar but became different due to different institutions and policies. He develops a theoretical framework incorporating a sort of "dynamic multiplier", modelling the hypothesis that households' work preferences tend to change due to variations in social habits[5] related to time allocation evolved on past experiences (endogenous/evolving preferences). More precisely, he modelled the hypothesis that the evolution of preferences generate permanent differences as a result of a period in which one region is influenced by labour regulations or tax regimes that do not disappear once regulations are eliminated.

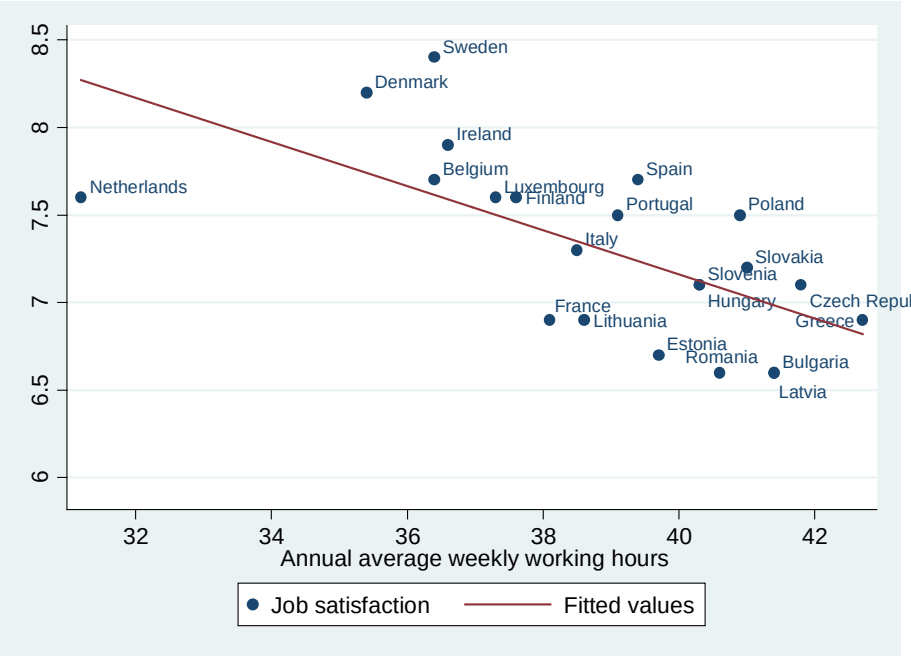
If preferences are indeed so crucial, it suggests that we need a better understanding of work values. Alesina et al. (2005) work with the German GSOEP

[5] Alesina et al. (2005) use the notion of social multiplier as a factor that could explain the discrepancy between micro and macro estimates of labor supply (p. 45). For example, it "is hard to obtain more vacation for yourself from your employer and even harder, if you do, to coordinate with all your friends to get the same deal and go on vacation together" (p. 53).

from 1990 and 2000 to explore the determinants of life satisfaction. They found that fewer hours worked is associated with greater life satisfaction, suggesting the simple interpretation that working less makes Germans happier. In a next step the authors looked at OECD data for 10 to 12 countries (cross-sectional and in panel (129 observations)). Here they also found the tendency towards a negative correlation between hours worked across countries and life satisfaction. They conclude with the statement that "Europeans seem to be happy to work less and less. Whether they internalize the macroeconomic effects of working less, like relative shrinking of the size of their economies relative to emerging countries, or a decline in the relative prominence of Europe as an economic superpower, is of course a different matter" (p. 55).

If it is true that working hours affects life satisfaction, what about the link between working hours and job satisfaction? Past research has observed that longer hours of work are associated with lower satisfaction (Clark 1997). For our analysis, we employ data from the World Values Survey (average values between 1981 and 2000, first four waves). We also utilize a measure of the annual working hours in 2006 based on a detailed review by the European Foundation for the Improvement of Living and Working Conditions 2010 (Comparative Analysis of Working Time in European Union). *Figure 3* presents a scatterplot showing a very strong negative correlation between annual working hours and job satisfaction (r=-0.65). We observe that Eastern European countries are working more hours and are less satisfied with their job than their Western European counterparts. This may indicate the need to consider regional differences in our study.

Figure 3: Job Satisfaction and Annual Average Weekly Working Hours



III. CONDITIONS OF COUNTRIES AND REGIONS

The transition of economies in Central and Eastern Europe (CEE) has attracted interested from social scientists as it can be seen unique societal or natural quasi-experiment. This allows testing of theories and identification of possible (hidden) features that are hard to notice when doing research in mature market economies (Meyer and Peng 2005). The reform process in the transition countries caused problems due to an institutional vacuum and uncertainty (for overview see Torgler 2003). At this point, it is worthwhile noting that the job satisfaction literature has not been developed extensively for Eastern European countries (for exceptions, see, e.g., Borooah 2007, Sousa-Poza and Sousa-Poza 2000). In describing the Russian experience, Linz (2003) found that workers "fared rather poorly during Russia's transition from a planned economy to a market economy" (p. 626). Thus, it is valuable to make a comparison between a relatively stable environment (Western

Europe) with an environment that has faced societal changes resulting in a radical altering of the traditional face and place of work (Eastern Europe). Many occupations, sectors and regions were characterized by falling real wages and unpaid wages account for nearly one-third of the wage bill due to a liquidity-constrained economic environment. Moreover, the (relatively few) existing studies have focused only on single countries rather than regions (for exceptions, see Borooah 2007 or Sousa-Poza and Sousa-Poza 2000). A comparative analysis that provides a better understanding of various countries and regions affords a valuable insight into work values in different cultures, which is useful for (among others) multinational companies (Sousa-Poza and Sousa-Poza 2000). The idea that the causes are largely cultural or institutional is supported by the degree of stability these inter-country differences exhibit over time (Davoine and Méda (2009).

In an interesting paper, Schwartz and Bardi (1997) explore value priorities in Eastern Europe. They refer to the results of an earlier study (see p. 386) indicating that East Europeans did not differ (as a group) from their Western counterparts in most values (politics, religion, primary relations) at the beginning of 1990s. The only difference lay in the domain of work values, reporting less appreciation for initiative, achievement, and responsibility in work. The authors suggest citing another study that a "greater degree of constraint on independence in the occupational experience of Eastern as compared to West Europeans may account for such differences". They continue: "For a limited set of values, a compensation mechanism sometimes operates. This is the case specifically for values concerned with material well-being and security, when their attainment is largely beyond personal control" (p. 387).

The above discussion raises questions regarding whether the conditions of a country (e.g., culture, political system etc.) influence the importance ascribed to

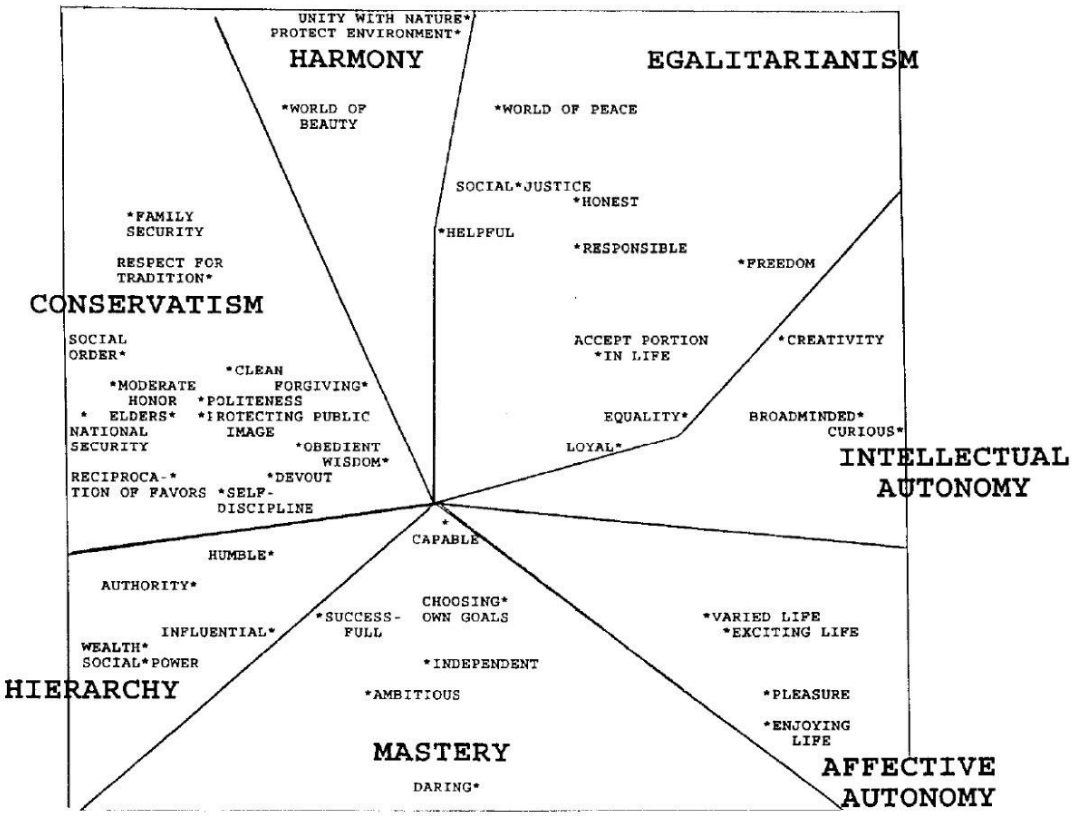
concepts such as work values. Research on job satisfaction has been criticized as atheoretical in nature (Judge and Locke 1993). Therefore, we try to address this shortcoming with the following discussion about an interesting theory of values[6]. Schwartz (1999) has explored the relationship between cultural values and work based on a theory that classifies nations according to different cultural values. He defines values as "conceptions of the desirable that guide the way social actors (e.g. organisational leaders, policy-makers, individual persons) select actions, evaluate people and events, and explain their actions and evaluations" (pp. 24-25). Cultural values are "implicitly or explicitly shared abstract ideas about what is good, right, and desirable in a society" (p. 25), providing the "bases for the specific norms that tell people what is appropriate in various situations" (p. 25). He derives seven types of values (see *Figure 4*). First he differentiates between *Conservatism* (maintenance of status quo, propriety, and restraint of actions or inclinations that might disrupt the solidarity group or the traditional order) and autonomy, classified as *Intellectual Autonomy* (independently pursuing own ideals and intellectual directions) and *Affective Autonomy* (pursuing affectively positive experiences (pleasure, exciting life, varied life)). Next, he derives further poles that deal with how people are socialized and sanctioned to comply with the obligations and rules. The value type of it is *Hierarchy* emphasizing legitimacy of an unequal distribution of power, roles and resources (social power, authority, humility, wealth). On the other hand, *Egalitarianism* refers to a culture/society where voluntary cooperation with others and the feeling concern for everyone's welfare is more predominant. *Egalitarianism* implies the transcendence of selfish interests in favour of voluntary commitment to promoting the welfare of others (equality, social justice, freedom, responsibility,

[6] For cultural shifts (e.g., rise of postmaterialist values) see also Inglehart (1990).

honesty). Finally, he differentiates between cultures that emphasize *Mastery* (getting ahead through active self-assertion (ambition, success, daring, competence) and *Harmony* (dealing with fitting harmoniously into the environment). A coplot technique has been applied by Schwartz (1999) to represent these different poles in a two-dimensional space setting while simultaneously dealing with dynamic relations of contradiction and compatibility among the various cultural value types. For example, the further towards the upper right a country is situated, the more intellectual autonomy is valued relative to all other samples (see *Figure 5a*). He rated 24 single values from 122 samples in 49 nations between 1988 and 1993. Instead of obtaining national samples, he focused on urban school teachers who teach the full range of subjects in grades 3-12, as they play a key role in value socialisation. In addition to the teachers (from 44 different nations), he also used data on college students from a wide variety of majors (40 nations). Looking and *Figure 5a* and *4b,* a certain robustness of cross-national structure of value profiles is evident. Schwartz (1999) discusses the implications of these value profiles with respect to work, considering elements such as work centrality, societal norms about work and work goals. For societies in which *Mastery* and *Hierarchy* values are important (as opposed to *Affective Autonomy*, *Egalitarianism*, *Harmony* and *Conservatism*), work is more likely to be experienced as central to life. Schwartz (1999) stresses that *Mastery* values emphasize the importance of getting ahead and the "major legitimate arena for such assertive, controlling, exploitative activity is the world of work" (p. 40). Similarly, *Hierarchy* also shares with *Mastery* "the legitimation of allocating roles and resources differentially, and they justify actions to increase one's power and wealth within the system" (p. 40). The primacy of wealth, power and differential resources encourages achievement of these goals in the work environment. On the

other hand, leisure is very strongly legitimised via an emphasis on *Affective Autonomy* values. *Egalitarianism* may be pursued through improving the community. *Harmony* is in conflict with work centrality as work modifies the material and social environment. Harmony emphasises according to Schwarz (1999) to accept the world as it is.

Figure 4: Schwartz's Cultural Dimensions of Values



Source: Schwartz (1999, p. 31).

Figure 5a: Country Classification Based on Teacher Samples (44 Nations)

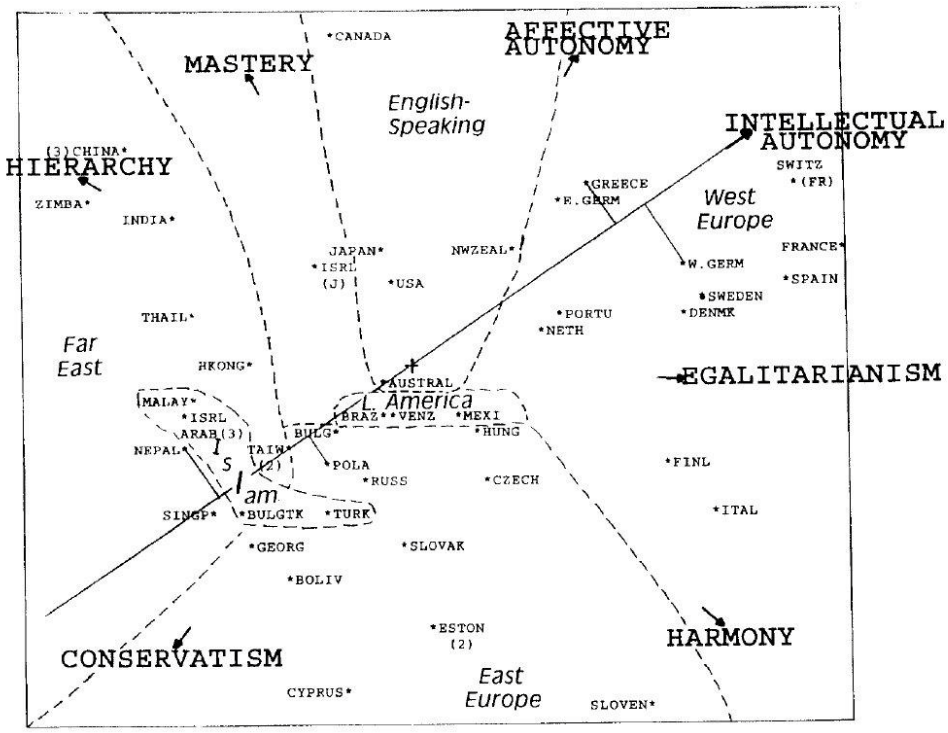
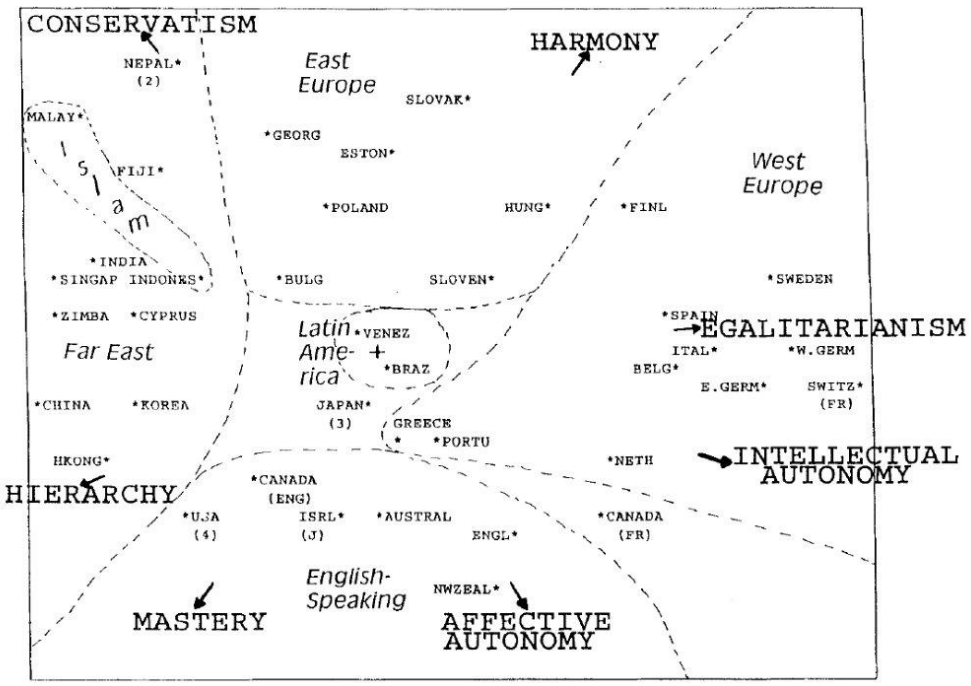


Figure 5b: Country Classification Based on Student Samples (40 Nations)



Source: Schwartz (1999, pp. 36 and 29).

If we apply this classification to Europe, we observe differences between Eastern and Western Europe as indicated in *Figure 5a and 5b*. Eastern Europe would place a greater emphasis on the importance of work (work centrality).

IV. EMPIRICAL ANALYSIS WITH EUROPEAN DATA

We employ a multivariate analysis using the EVS 1999/2000 to check for regional differences Past studies exploring the determinants of work values or job satisfaction have generally been criticized for the problematic matter of individual heterogeneity: "What is wanted by one group of individuals in terms of a job is often different from what is wanted by another group" (Oshagbemi 2003, p. 1211). A multivariate analysis is able to take personal correlates into account, although the subjective nature of inter-personal comparisons means that a cross-sectional analysis is still open to criticism. Furthermore, it is unwise to make strict causal interpretations in a cross-sectional environment (Blanchflower and Oswald 1999). Recent studies therefore work more intensively with panel data in an attempt to address some of these issues. Nevertheless, while regressions can be used to approximate experiments in the absence of random assignment (Angrist and Pischke 2009), in many situations it is quite challenging to deal with causal interpretations. We recognize that interpretation of our results is problematic, as is the habit of referring to observed correlations as causal effects. The reality is that we see the results as more precisely estimated partial correlations. For simplicity, we use the notion of 'impact' or 'effect' when discussing the results or when providing a literature review. Such results can provide guidance when deriving policy implications as long as one is aware that these are not fully precise estimates of the causal effect of interest. Blanchflower and Oswald (1999)

discuss further limitations of this kind of data. Questions are translated in different languages which may lead to biases. However, they stress that psychologists are familiar with translation objection . Moreover, "large differences are discovered even across nations using the same language, so differences nation-by-nation cannot be attributed solely to the language of the survey team" (p. 10). In a broader sense, such language biases are culturally-motivated biases due to perceptions (ethnic bias): "If the questionnaire or the topic being studied is "ethnically biased," then errors in perception will occur. Similar sounding terms in different languages such as "individualism" and individualismo", are based on different perceptions (Sousa-Poza and Sousa-Poza 2000, p. 522, who cite also another paper). Similarly, Kristensen and Johansson (2008) criticize the issue of subjective answers to questions on individual well-being due to culturally and institutionally driven perceptions that can lead to systematic differences across groups of sub-populations. They use anchoring vignettes to deal with this potential problem. Respondents were not only asked about their job satisfaction but also ranked on the same scale their assessment of how good or bad were a set of hypothetical jobs or life situations. This information was then used to rescale individuals' real evaluation of their own situation. They found that rankings across countries can change with and without this approach, indicating that caution must be exercised when making single country comparisons (country dummies). On the other hand, their results regarding influences that shape job satisfaction (age, income, and gender) were in line with other studies.

Sousa-Poza and Sousa-Poza (2000) are critical of the sample sizes of such data. At around 1000 observations per country for this survey and other international surveys such as International Social Survey Programme (ISSP), the authors declare: "We have no reason to doubt the quality of the sampling, but it would be comforting

to have larger number of workers. This is another reason to treat the estimates cautiously" (p. 10).

We restrict our sample to include only those individuals who were in the labour force at the time of the survey, therefore excluding unemployed individuals, retired people and people staying at home. We also excluded students. To reduce potential ranking problems, we simply classify the sample of 31 countries into two keyregions, namely Eastern and Western Europe (there are 16 countries from Western Europe, 15 from Eastern Europe, see *Table 1*).

Table 1: Countries in the Empirical Micro-Analysis

Western European Countries	***Eastern European Countries***
Germany	Belarus
Austria	Bulgaria
Belgium	Croatia
Great Britain	Czech Republic
Denmark	Estonia
Finland	Greece
France	Hungary
Iceland	Latvia
Ireland	Lithuania
Italy	Poland
Malta	Romania
Netherlands	Russia
North Ireland	Slovak Republic
Portugal	Turkey
Spain	Ukraine
Sweden	

We measure several variables that allow us to proxy work centrality, namely:

IMPORTANCE OF WORK IN LIFE:

Please say how important it is in your life: Work (1=Not at all important, 2=Not very important, 3=Rather important, 1=Very important): Work.

WORK SHOULD COME FIRST:

Do you agree or disagree with the following statement? Work should always come first (1=Disagree strongly, 2=Disagree, 3=Neither agree nor disagree, 4=Agree, 5=Agree strongly).

DECREASE IMPORTANCE OF WORK

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? Decrease in the importance of work in our lives (1=Bad, 2=Don't mind, 3=Good).

WORK DUTY

Do you agree or disagree with the following statement? Work is a duty towards society (1=Disagree strongly, 2=Disagree, 3=Neither agree nor disagree, 4=Agree, 5=Agree strongly).

Working with multiple proxies for work centrality provides the opportunity to address a criticism raised by Sousa-Poza and Sousa-Poza (2000): A single item and the variance due to the specific wording of the item cannot be averaged out. In addition, a single item also reduces the ability to evaluate internal consistency. Instead of using an index we explore these single factors independently in order to check the robustness of the results.

In general, an ordered probit model ranking information of these scaled dependent variables is appropriate. To measure the quantitative effect of this variable,

we calculate the marginal effects because the equation is nonlinear. The marginal effect indicates the change in the percentage or probability of individuals having a specific level of work centrality when the independent variable increases by one unit. For simplicity, the marginal effects in all estimates are presented for the highest value of our dependent variables only. Weighted ordered probit estimates are conducted to make the samples correspond to the national distribution. Furthermore, answers such as “don’t know” and missing values have been eliminated in all estimations.

We now briefly discuss how the controls could shape work centrality. Most of the evidence available is related to the literature on job satisfaction rather than work centrality. Some studies have used work centrality or work values as independent factors to explain job satisfaction (see, e.g., Borooah 2007, Clark 1997). Thus, one cannot infer that the results obtained in that literature are also valid for work centrality and other work values.

Age and gender are two key variables that have been used in the empirical literature on job satisfaction. Kanfer and Ackerman (2004) point out that a large number of participants in the US workforce are forty-five years or older (increasing trend) with similar workforce age trends in most developed countries. Recent statistics from the US Current Population Survey (May 2011 data) seemed to indicate that 60% of the people active in the work force (without counting unemployed people) are older than 44 years. Oshagbemi (2003) also argues that research on older workers has become valuable from policy a perspective due to the problem of an ageing population and labour trends indicating that these workers will play a more prominent role in the work force. Oshagbemi (2003) provides a brief overview of the literature on age and gender, reporting that the initial studies in the 1970s and early 1980s found a positive linear relationship between age and job satisfaction. Changing needs and

cognitive structures, a mellowing process, an increased coping capacity with age, realistic expectations and accommodation to the work conditions, were all proposed as explanations for this effect. Moreover, older workers generally have more experience and occupy senior positions which afford the opportunity if they are dissatisfied with the work conditions. Moving around in the early stages of a career allows the worker to discover likable and unlikable jobs, helping people to sort themselves into jobs they like and out of jobs they dislike (Blanchflower and Oswald 1999). In addition, older workers seem to care more about extrinsic rewards than intrinsic motivations, with More recent studies find a curvilinear relationship and decrease in the later part of life, although in some cases this became a U-shaped relationship (see, Oshagbemi 2003). Younger workers entering the job market tend to have fewer non-job (financial) pressures (e.g., family issues) (Birdi, Warr and Oswald 1995). Thus, Oshagbemi (2003) concludes that to date "there appears to be extensive evidence of a relationship between employee age and job satisfaction. However, the nature of this relationship, whether linear or curvilinear, remains unsettled" (p. 1214).

Non-linearity is less obvious once we focus on aspects of work ethic rather than job satisfaction. For example, the empirical literature on moral values has observed a linear relationship with age (see, e.g., Torgler 2007 for tax morale).

Jürges (2003) criticizes the job satisfaction findings as they are mostly derived from cross-sectional data, and declares that the relationship between job satisfaction and age is potentially biased by cohort effects. Working with the GSOEP (German Socio-economic Panel) data set, he reports a concave relationship, observing decreases in job satisfaction at higher ages. However, he is circumspect regarding generalizations from his results, stating that "it is by no means certain that replications of my study with other data (e.g., the BHPS) will lead to the same conclusion,

especially since cohort analysis is responsive to identification issues" (p. 502). Another influence on job satisfaction may be found in the job market, particularly for newly-employed young people. In times of high (youth) unemployment (young) people who have been successful in getting employment might feel pleased about their position (Birdi, Warr, and Oswald 1995).

Gender is another factor that has been explored extensively, and here we find contradictory results (as reported by Oshagbemi 2003). Some studies find that women are more satisfied than men, others find men to be more satisfied than women. At first, higher job satisfaction among women seems surprising, since the key finding in labour economics is the large and significant difference between men's and women's pay, coupled with worse conditions for women in terms of hiring and firing, job content, promotion opportunity and sexual harassment (Clark 1997). Shields and Price (2002) also show that one of the most important determinants of job satisfaction among nurses from an ethnic minority is whether they have experienced racial harassment at the workplace, and whether they have perceived discrimination in promotion and training.

Again, we find expectation is a key explanation for potential differences: "[T]hose who expect less from working will be more satisfied with any given job" (Clark 1997, p. 342). Clark (1997) also points out that women are more likely to select themselves out of the labour market if they are dissatisfied with the job. However, the expectation argument may suggest that the difference is "a transitory phenomenon, caused by women's improved position in the labour force relative to their expectations. Once women's labour market rewards stop improving (or, more accurately, only improve at the same rate as those of men) men's and women's reported satisfaction should be identical" (p. 365). Sousa-Poza and Sousa-Poza (2003)

analyze the British Household Panel Survey and demonstrate that the difference between male and female average job satisfaction scores has declined (halved) between 1991 and 2000. Their empirical model also shows that there is a clear downward trend in job satisfaction in the female sample while men's negative trend is not very pronounced.

It has also been suggested that men and women use different criteria in assessment of the work and they hold different work related values that can be tested in this study. For example, women place more value on the social factors of a job, while men value career and opportunities for self-expression. Oshagbemi (2003, p. 1216) points out: "A job high on social satisfaction, but low on skill utilisation and career prospects may result in higher job satisfaction for females than for males, whereas in occupations allowing little scope for social relationship, the differences in satisfaction might be in the opposite direction".

However, differences often disappear when a number of other variables are controlled (Oshagbemi 2003). For example, Donohue and Heywood (2004) were not able to find gaps in gender satisfaction when focusing on a younger US cohort and using data from the National Longitudinal Survey of Youth. As a methodological point, the authors also stress the importance of dividing samples by gender and by occupational group. White-collar females report significantly higher levels of satisfaction when childcare benefits are available and when they are working for a small firm. On the other hand, white-collar males care about having a retirement plan.

In general, such results indicate the importance of using work values that measure factors other than job satisfaction as dependent variables. Moreover, it seems that gender differences on values in general (rather than work values) are quite stable over time. Women seem to care more about intrinsic, altruistic, and social

values (for an overview see Hitlin and Piliavin 2004). This aspect is explored later in the paper.

Hitlin and Piliavin (2004) stress that educational attainment is an important mediating variable between values and occupation. Clark and Oswald (1996) control for income and find that highly educated people appear less content (monotonic and well-defined effect). When income is not controlled, the effect of education on "pay" satisfaction disappears but that between overall job satisfaction remains. Moreover, the authors find that using lagged values of education and income returns a negative correlation between past education and current job satisfaction. While this outcome is in line with several papers they cite demonstrating the same relationship, Clark and Oswald (1996) introduce their paper by stating that the result "is harder to interpret, but may be consistent with the view that utility depends on the gap between outcomes and aspirations, and that education raises aspiration targets (pp. 360-361). Clark (1996) points out that the causal mechanism of this relationship is ambiguous: "the process of education could itself raise workers' expectations, or those who already have high expectations (influenced by their parents or their early schooling, for example) could be more likely to continue their education" (p. 1999). Clark (1996) presents results in support of the idea that workers with higher levels of education report themselves as relatively dissatisfied. Vila and García-Mora (2005) discuss the link between education and job satisfaction in detail, explaining that perceived over-qualification reduces satisfaction because expectations have not been fulfilled. The authors discuss the literature on the area and conclude that it is rather limited. They also stress that the effect of education level on workers' satisfaction varies across diverse aspects of the job (heterogeneous in size and direction) when controlling for job/worker attributes.

In general, education is positively correlated with more efficient use of information and the formation of expectations at work (Ganzach 1998). A significant body of literature regarding the role of human capital on economic performance concentrates on only one aspect of human capital endowment, namely educational stock. Alternative factors such as job satisfaction are proving to be interesting avenues of investigation, especially in light of results that indicate job satisfaction exhibits a positive influence on growth in European regions (Rodríguez-Pose and Vilalta-Bufí 2005). Ganzach (1998) finds that intelligence is negatively correlated with job satisfaction when job complexity is held constant. Based on the sample constructed, the author argues that most of the jobs held by the respondents were not challenging or interesting enough and the dissatisfaction produced by lack of interest was stronger among more intelligent people. Long's (2005) results using the HILDA survey in Australia indicates the importance of differentiating between levels of education when looking at gender differences. The determinants of job satisfaction for men and women with lower levels of education are significantly different, a result not found when looking at higher skilled/educated individuals. Women in this group exhibit similar levels of satisfaction to their male counterparts. Thus, it seems that expectations of work are not uniformly held by all women. Long concludes her analysis with a criticism of the claim (previously discussed) that the job satisfaction differential between men and women will decrease over time: "Although it is arguable that this is increasingly more common, the continued existence of women who choose a lifestyle where work is not their first priority suggests that differences in job satisfaction by gender will persist" (pp. 318). This contention further underscores the importance of exploring whether factors such as gender or education affect work centrality.

It has also been argued that occupational groups that are more 'job involved' view their work as more central to their lives than lower skilled occupational groups (see, e.g., Bamundo and Kopelman 1980). We would therefore anticipate a significant difference between self-employed and full-time employees. Moreover, the choice to work part-time may show a lower preference for work (compared to full-time employed people). It is important to note that past evidence indicates that those at the higher end of the occupational scale (income) report higher satisfaction with their work (Clark 1996).

Contrary to the perceived aim of unions, it seems that they reduce job satisfaction in various countries such as the US, Australia, UK, or Canada. Several reasons have been proposed for this anomaly (for an overview see Renaud 2002). Unions are organized for the purpose of giving a voice to workers, and it may be that this politicization of the enterprise's workforce negatively affects job satisfaction. In other words, by providing workers the opportunity to use their voice, unsatisfied workers are encouraged to stay in jobs they dislike, while trying to change their working conditions (Clark 1996). However, reverse causation suggests that unhappy workers are more likely to join the union. Bryson et al. (2004) also note that despite a potential spurious correlation, the chance to express their discontent through a collective voice could indeed exert a causal influence. Nevertheless, some studies dealing with possible simultaneity still report a negative relationship. According to Bryson et al. (2004) the difference in job satisfaction between unionized and non-unionized workers disappears once they control for individual and establishment heterogeneity and model the endogeneity (indication of a selection effect). In light of these contrary (and interesting) results, we control for various aspects related to unions: trust in unions, belonging to a trade union or doing unpaid work for a trade

union. In addition, we explore belonging or doing unpaid work in professional associations and control for trust in unions. Bryson et al. (2004) cite previous work in their criticism of confusion in the literature, explaining that this is due to a failure to distinguish between job satisfaction and satisfaction with the union and management.

Religion is another factor that could be worth considering in an analysis of work values. This factor has not received a lot of attention in the job satisfaction literature. Controlling for religion therefore implicitly assumes that individual preferences are not to be taken as given (Mueller 2001). Torgler (2006) provides a detailed discussion how religion and religiosity influence moral values and moral commitments. Interestingly, Torgler (2006) observes a strong link between religiosity and moral values (tax morale). While religiosity might reinforce certain social norms, the idea that work is necessary to serve a higher purpose (as previously discussed with respect to Calvinists) has mostly vanished. It has been gradually replaced by the notion that work meets intrinsic values such as being autonomous, creative, or flexible to express oneself and develop own skills: “In traditional, pre-modern order values were primarily based in, and legitimized by tradition and institutional (Christian) religion. In modern and post-industrial society they have become subject of individual freedom and personal autonomy. The individual has become free and independent upon the traditions in general, and social and religious institutions in particular. The social significance of these traditional institutions has declined, and the prescriptions of these institutions are no longer accepted as self evident and taken for granted” (Halman 1996, p. 3). If this is the case, we would not observe a strong link between religiosity and work values.

To explore this relationship, we first focus on the frequency of church attendance, as this measure indicates whether people spend their time in devotion to

religion (for a discussion see Torgler 2006). In addition to church attendance, we implement a variable measuring the degree of religiosity, which does not account for the exact time spent on religious activities, but tries to capture the extent of individuals' internalized religious convictions (religious identity salience).

Political interest is an underexplored aspect, but arguably one that should be considered, as work and politics are similar institutions and therefore experiences in one domain spillover into the other. For example, Cohen and Vigoda (1998) argue that a non-work domain, interest, or activity can carry over into the work domain and affect attitudes and behaviours there. Another argument is that political interest can be seen as informal education, and an intense interest in politics might influence work attitudes. People who are more interested in politics may develop better work (educational based) skills, positively influencing work attitudes. Cohen and Vigoda (1998) stress that people who are cynical about the political system and do not perceive themselves as capable of influence will transfer this orientation to the work setting, resulting in lower levels of involvement in the job. Although we do not control for political engagement, a similar effect may be observable for political interest. Existing evidence suggests that political interest shapes moral values and voluntary engagement (Dong and Torgler 2009, Torgler et al. 2011). In addition to formal and informal education, we also control for trust in the education system and ideology.

In general, there is a significant advantage of exploring work centrality or work ethic. Several studies on job satisfaction have been unable to control for potential important variables such as working conditions, which can seriously bias (omitted variable problem) the results obtained and coefficients on any correlated variables (Brown and McIntosh 2003). Variables on work centrality or work ethic

should be less affected by the actual work conditions (if they are affected at all). For instance, the happiness literature has shown the importance of the relative income position (Frey 2008, Clark et al. 2008) and job satisfaction may depend heavily on the relative wages. However, this requires a good understanding of the correct reference group. There are many other elements related to work conditions that could be considered for our analysis (such as occupational environment, establishment size or individuals' health status), although the focus on work values may reduce the need to control for those factors.

In general, micro models on job satisfaction, happiness or values are plagued by poor measures of fit (R^2 values below 1 percent, in particular for large datasets) which does not rule out the possibility that the models might have been mis-specified and have ignored important determinants. The estimations presented in the following tables are no exception.

For each dependent variable we present seven different specifications. This allows to check the robustness of key independent variables. First we explore a baseline specification that controls age, gender, education, marital status, employment status, religiosity, and political interest (see specifications (1), (8), (15) and (22)). Next, we add two vertical trust variables, namely trust in trade unions and trust in the education system (specifications (2), (9), (16) and (23))[7]. Following this, we investigate whether belonging to a trade union or a professional association influences work centrality ((3), (10), (17) and (24)). As there might be a difference between passive and active involvement we extend the following specifications ((4), (11), (18), and (25)) with variables that measure the unpaid voluntary work for trade unions and

[7] Questions: Please look at this card and tell me, for each item listed, how much confidence you have in them, is it a great deal (4), quite a lot (3), not very much (2) or none at all (1)? Trade unions. The education system.

professional associations. In addition, we start to control for ideology (rightist)[8] in equations (5), (12), (18) and (26)), followed by a measure of whether individuals are free to make decisions in their job[9]. This first group of specifications also controlled for regional differences (Eastern Europe dummy). In the last group of regressions we use country dummy variables instead of our regional dummy variable. The results indicate a substantial difference between Eastern and Western Europe. The dummy Eastern Europe is almost always statistically significant at the 1% level and reports large quantitative effects. We also consistently observe that work centrality is substantially more dominant in Eastern Europe. For example, being from Eastern rather than Western Europe increased the probability that work is very important by between 5 and 7 percentage points. It also increases (by around 10 percentage points) the probability of answering "strongly agree" to the question of whether work should always come first. Moreover, work centrality reduces the probability of reporting that a decrease in the importance of work in life by around 25 percentage points. Thus, these results provide strong support for the idea that Eastern Europe has stronger preferences towards work centrality.

Turning to the other variables, we observe a positive relationship between age and work centrality (except for Table 4). On the other hand, it seems that work is less central for women than for men. The coefficient is mostly statistically significant at the 1% level with marginal effects between 1 and 4 percentage points. Next, we observe a negative relationship between education and work centrality. The coefficient is statistically significant in all 28 estimations. On the other hand, political interest only has a statistically significant effect on the results reported in *Table 2* (importance of work) and *Table 5* (work as a duty towards society). Interestingly,

[8] Question: In political matters, people talk of 'the left' and 'the right'. How would you place your views on this scale, generally speaking? (1=Left, 10=Right).
[9] Question: How free are you to make decisions in your job (1=None at all, 10=A great deal).

divorced people evaluate work as more important than do married people (*Table 2*) but they consider it less of a duty towards society (*Table 5*). We observe a similar effect for people who have never been married. Clearer patterns are observable for employment status. Part-time workers (working less than 30 hours per week) are substantially less likely to care about work compared with full-time employees. The effects are quite large for our first dependent variable (importance of work). Being a part-time worker reduces the probability of stating that work is very important by around 10 percentage points. The opposite is found for self-employed people. Work is more central in their life compared to full-time employees (except for the question of seeing it as a duty towards society). However, the effect disappears in two cases (see *Table 2* and *4*) once we control the extent to which someone is free to make decisions in their job. This is not surprising considering the strong correlation between this variable and being self-employed. Moreover, being free to make decisions in the job is also positively correlated with work centrality.

Turning to the results on church attendance and perceived religiosity, it should be noted that we do not explore the impact of religious denomination in these first estimations. Interestingly, we observe the clear tendency for religiosity to be positively correlated with work centrality. Both coefficients are statistically significant in most of the estimations, however, the effect of church attendance decreases once we add country fixed effects.

In contrast to the results on education, trust in the education system is positively correlated with work centrality. Here the coefficient is also statistically significant at the 1% level in all estimations. On the other hand, mixed results are observed for trust in trade unions. It has no impact in *Table 2* and *4*, but we can see a robust positive relationship in *Table 3* and *4*. There is the tendency that belonging to a

trade union is negatively correlated with work centrality, particularly when focusing on the first two dependent variables. However, when looking at all the specifications ((1) to (14) we can see that the coefficient is not statistically significant in all specifications. Furthermore, it is interesting that we observe a different picture when considering unpaid voluntary work for trade unions. The coefficient is positive, although it is only statistically significant in three estimations (see *Table 2*). Belonging to or doing voluntary work for professional organizations is not linked to work centrality, except when looking at work as a duty towards society (see *Table 5*). Finally, we find that there is a tendency for more 'rightist' oriented people to report that work is more central to their lives.

Table 2: Importance of Work in Life

Dependent variable	**Importance of work in life**						
Independent variables	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**
Eastern Europe	0.142***	0.160***	0.159***	0.156***	0.168***	0.196***	
	(7.08)	(7.63)	(7.55)	(7.38)	(7.24)	(8.06)	
	0.053	*0.060*	*0.059*	*0.058*	*0.063*	*0.073*	
Age	0.003***	0.003***	0.003***	0.003***	0.003***	0.004***	0.006***
	(3.51)	(3.07)	(3.14)	(3.12)	(2.83)	(3.35)	(5.11)
	0.001	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.002*
Female	-0.104***	-0.106***	-0.105***	-0.105***	-0.115***	-0.112***	-0.070***
	(-5.05)	(-4.96)	(-4.94)	(-4.91)	(-4.92)	(-4.75)	(-2.92)
	-0.039	*-0.034*	*-0.040*	*-0.039*	*-0.043*	*-0.042*	*-0.026*
Education	-0.005**	-0.005**	-0.005**	-0.005**	-0.006***	-0.008***	-0.008***
	(-2.43)	(-2.57)	(-2.37)	(-2.37)	(-2.76)	(-3.47)	(-3.27)
	-0.002	*-0.002*	*-0.002*	*-0.002*	*-0.002*	*-0.003*	*-0.003*
Widowed	0.000	0.000	0.001	0.002	-0.010	0.040	0.029
	(0.00)	(0.00)	(0.02)	(0.03)	(-0.11)	(0.44)	(0.32)
	0.000	*0.000*	*0.000*	*0.001*	*-0.004*	*0.015*	*0.010*
Divorced	0.110***	0.125***	0.128***	0.128***	0.120***	0.117***	0.125***
	(2.86)	(3.15)	(3.22)	(3.24)	(2.77)	(2.65)	(2.82)
	0.041	*0.046*	*0.047*	*0.047*	*0.044*	*0.043*	*0.046*
Separate	0.079	0.080	0.078	0.080	0.115	0.144	0.108
	(1.05)	(1.03)	(1.01)	(1.03)	(1.31)	(1.60)	(1.18)
	0.029	*0.029*	*0.029*	*0.030*	*0.042*	*0.052*	*0.039*
Never married	-0.074***	-0.070***	-0.073***	-0.072***	-0.065**	-0.050*	-0.013
	(-2.84)	(-2.62)	(-2.71)	(-2.67)	(-2.22)	(-1.67)	(-0.44)
	-0.028	*-0.026*	*-0.027*	*-0.027*	*-0.025*	*-0.019*	*-0.005*
Part-time worker	-0.244***	-0.253***	-0.256***	-0.255***	-0.262***	-0.263***	-0.263***
	(-8.34)	(-8.26)	(-8.35)	(-8.33)	(-7.64)	(-7.55)	(-7.37)
	-0.094	*-0.097*	*-0.099*	*-0.098*	*-0.101*	*-0.101*	*-0.101*
Self-employed	0.072**	0.091***	0.080**	0.080**	0.073*	0.041	0.005
	(2.12)	(2.59)	(2.27)	(2.27)	(1.93)	(1.02)	(0.12)
	0.027	*0.033*	*0.030*	*0.030*	*0.027*	*0.015*	*0.002*
Church attendance	0.017***	0.017***	0.016***	0.016***	0.020***	0.020***	-0.009
	(3.69)	(3.50)	(3.33)	(3.25)	(3.83)	(3.69)	(-1.48)
	0.007	*0.006*	*0.006*	*0.006*	*0.008*	*0.007*	*-0.003*
Religious	0.093***	0.084***	0.086***	0.087***	0.072***	0.071***	0.080***
	(5.06)	(4.48)	(4.56)	(4.60)	(3.49)	(3.43)	(3.67)
	0.035	*0.032*	*0.032*	*0.033*	*0.027*	*0.027*	*0.030*
Follow politics in the news	0.041***	0.038***	0.038***	0.038***	0.028***	0.025**	0.034***
	(5.01)	(4.46)	(4.51)	(4.50)	(2.90)	(2.50)	(3.31)
	0.015	*0.014*	*0.014*	*0.014*	*0.011*	*0.009*	*0.013*
Trust in trade unions		-0.000	0.005	0.003	0.000	0.001	0.005
		(-0.03)	(0.33)	(0.24)	(0.01)	(0.05)	(0.31)
		-0.000	*0.002*	*0.001*	*0.000*	*0.000*	*0.002*
Trust in education system		0.111***	0.111***	0.112***	0.120***	0.126***	0.118***
		(7.63)	(7.83)	(7.85)	(7.68)	(7.89)	(6.82)
		0.041	*0.042*	*0.042*	*0.045*	*0.047*	*0.044*
Belong to trade union			-0.049**	-0.064**	-0.069**	-0.076***	0.028
			(-2.10)	(-2.57)	(-2.56)	(-2.83)	(0.91)
			-0.019	*-0.239*	*-0.026*	*-0.029*	*0.010*
Belong to professional association			0.015	-0.009	0.049	0.033	0.070*
			(0.44)	(-0.22)	(1.20)	(0.79)	(1.65)
			0.006	*-0.003*	*0.018*	*0.012*	*0.026*
Unpaid voluntary work for trade union				0.094*	0.108**	0.102*	0.038
				(1.84)	(2.00)	(1.86)	(0.70)
				0.035	*0.040*	*0.037*	*0.014*
Unpaid voluntary work for professional associations				0.070	0.037	0.028	0.043
				(1.11)	(0.56)	(0.42)	(0.64)
				0.026	*0.014*	*0.010*	*0.016*
Rightist					0.009	0.007	0.017***
					(1.49)	(1.25)	(2.78)
					0.003	*0.003*	*0.006*
Free making decisions in the job						0.020***	0.028***
						(4.19)	(5.87)
						0.007	*0.011*
Country fixed effects	No	No	No	No	No	No	Yes
N	18924	17755	17755	17755	14921	14516	14516
Prob>chi2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Pseudo R2	0.016	0.019	0.019	0.019	0.020	0.022	0.045

Notes: Coefficients in bold, *z*-statistics in parentheses, marginal effects in italics. The symbols *, **, *** represent statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 3: Work Should Come First

Dependent variable	**Work should always come first, even if it means less spare time.**						
Independent variables	**(8)**	**(9)**	**(10)**	**(11)**	**(12)**	**(13)**	**(14)**
Eastern Europe	0.487***	0.514***	0.510***	0.508***	0.529***	0.541***	
	(27.88)	(28.14)	(27.79)	(27.61)	(26.17)	(25.77)	
	0.098	*0.104*	*0.103*	*0.102*	*0.105*	*0.108*	
Age	0.015***	0.015***	0.015***	0.015***	0.016***	0.016***	0.017***
	(16.94)	(16.56)	(16.70)	(16.69)	(16.07)	(16.04)	(17.18)
	0.003	*0.003*	*0.003*	*0.003*	*0.003*	*0.003*	*0.003*
Female	-0.113***	-0.114***	-0.114***	-0.113***	-0.104***	-0.104***	-0.108***
	(-6.39)	(-6.22)	(-6.22)	(-6.21)	(-5.20)	(-5.13)	(-5.23)
	-0.022	*-0.022*	*-0.022*	*-0.022*	*-0.020*	*-0.020*	*-0.019*
Education	-0.028***	-0.028***	-0.027***	-0.027***	-0.027***	-0.028***	-0.022***
	(-15.67)	(-15.25)	(-14.47)	(-14.46)	(-13.49)	(13.59)	(-10.10)
	-0.006	*-0.005*	*-0.005*	*-0.005*	*-0.005*	*-0.005*	*-0.004*
Widowed	0.031	0.028	0.027	0.026	-0.025	-0.021	-0.011
	(0.58)	(0.49)	(0.47)	(0.47)	(-0.39)	(-0.31)	(-0.15)
	0.006	*0.006*	*0.005*	*0.005*	*-0.005*	*-0.004*	*-0.002*
Divorced	-0.038	-0.030	-0.030	-0.029	-0.049	-0.054	-0.017
	(-1.11)	(-0.85)	(-0.85)	(-0.84)	(-1.28)	(1.38)	(-0.43)
	-0.007	*-0.006*	*-0.006*	*-0.006*	*-0.009*	*-0.010*	*-0.003*
Separate	-0.004	0.011	0.010	0.010	0.030	0.037	0.067
	(-0.06)	(0.16)	(0.14)	(0.15)	(0.40)	(0.48)	(0.86)
	-0.001	*0.002*	*0.002*	*0.002*	*0.006*	*0.007*	*0.013*
Never married	-0.018	-0.013	-0.014	-0.014	0.002	0.016	0.041
	(-0.80)	(-0.53)	(-0.61)	(-0.59)	(0.10)	(0.62)	(1.53)
	-0.004	*-0.002*	*-0.003*	*-0.003*	*0.000*	*0.003*	*0.008*
Part-time worker	-0.154***	-0.173***	-0.177***	-0.176***	-0.194***	-0.189***	-0.140***
	(-6.06)	(-6.53)	(-6.67)	(-6.63)	(-6.55)	(-6.24)	(-4.51)
	-0.029	*-0.030*	*-0.032*	*-0.032*	*-0.034*	*-0.033*	*-0.024*
Self-employed	0.128***	0.141***	0.140***	0.141***	0.099***	0.084**	0.065*
	(4.46)	(4.79)	(4.71)	(4.73)	(3.06)	(2.52)	(1.87)
	0.027	*0.030*	*0.029*	*0.030*	*0.020*	*0.017*	*0.012*
Church attendance	0.025***	0.023***	0.023***	0.023***	0.026***	0.026***	0.011**
	(6.03)	(5.54)	(5.54)	(5.39)	(5.61)	(5.64)	(2.11)
	0.005	*0.005*	*0.005*	*0.004*	*0.005*	*0.005*	*0.002*
Religious	0.096***	0.090***	0.091***	0.091***	0.068***	0.069***	0.060***
	(5.82)	(5.28)	(5.33)	(5.36)	(3.66)	(3.67)	(3.04)
	0.019	*0.018*	*0.018*	*0.018*	*0.013*	*0.013*	*0.011*
Follow politics in the news	0.011	0.009	0.010	0.010	0.010	0.011	-0.006
	(1.47)	(1.15)	(1.37)	(1.35)	(1.10)	(1.21)	(-0.68)
	0.002	*0.002*	*0.002*	*0.002*	*0.002*	*0.002*	*-0.001*
Trust in trade unions		0.028**	0.031**	0.030**	0.034**	0.036***	0.036***
		(2.35)	(2.57)	(2.50)	(2.57)	(2.65)	(2.66)
		0.005	*0.006*	*0.006*	*0.007*	*0.007*	*0.007*
Trust in education system		0.100***	0.100***	0.100***	0.107***	0.101***	0.120***
		(7.85)	(7.87)	(7.89)	(7.70)	(7.13)	(8.02)
		0.020	*0.020*	*0.020*	*0.021*	*0.019*	*0.022*
Belong to trade union			-0.034*	-0.046**	-0.035	-0.031	0.022
			(-1.69)	(-2.13)	(-1.49)	(-1.34)	(0.85)
			-0.007	*-0.009*	*-0.007*	*-0.006*	*0.004*
Belong to professional association			-0.068**	-0.064*	-0.067*	-0.089**	-0.054
			(-2.19)	(-1.80)	(-1.80)	(-2.33)	(-1.39)
			-0.013	*-0.012*	*-0.013*	*-0.016*	*-0.009*
Unpaid voluntary work for trade union				0.069	0.056	0.058	0.026
				(1.57)	(1.23)	(1.26)	(0.55)
				0.014	*0.011*	*0.011*	*0.005*
Unpaid voluntary work for professional associations				-0.017	-0.023	-0.034	-0.043
				(-0.30)	(-0.40)	(-0.58)	(-0.74)
				-0.003	*-0.004*	*-0.006*	*-0.008*
Rightist					0.027***	0.026***	0.029***
					(5.37)	(5.20)	(5.47)
					0.005	*0.005*	*0.005*
Free making decisions in the job						0.013***	0.016***
						(3.25)	(3.91)
						0.003	*0.003*
Country fixed effects	No	No	No	No	No	No	Yes
N	17998	16906	16906	16906	14230	13837	13837
Prob>chi2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Pseudo R2	0.037	0.040	0.040	0.040	0.043	0.043	0.063

Notes: Coefficients in bold, *z*-statistics in parentheses, marginal effects in italics. The symbols *, **, *** represent statistical significance at the 10%, 5%, and 1% levels, respectively. We report the marginal effects of the highest score.

Table 4: Decrease of Work Importance

Dependent variable	**Decrease in the importance of work**						
Independent variables	**(15)**	**(16)**	**(17)**	**(18)**	**(19)**	**(20)**	**(21)**
Eastern Europe	-0.708***	-0.707***	-0.709***	-0.710***	-0.723***	-0.751***	
	(-34.10)	(-32.66)	(-32.52)	(-32.44)	(-30.10)	(-30.08)	
	-0.238	*-0.238*	*-0.239*	*-0.239*	*-0.244*	*-0.253*	
Age	-0.006***	-0.006***	-0.006***	-0.006***	-0.006***	-0.006***	-0.008***
	(-6.30)	(-5.84)	(-5.72)	(-5.72)	(-5.40)	(-5.14)	(-6.48)
	-0.002	*-0.002*	*-0.002*	*-0.002*	*-0.002*	*-0.002*	*-0.003*
Female	0.008	0.021	0.021	0.021	0.017	0.012	0.004
	(0.40)	(0.96)	(0.97)	(0.97)	(0.73)	(0.49)	(0.17)
	0.003	*0.007*	*0.007*	*0.007*	*0.006*	*0.004*	*0.001*
Education	0.014***	0.013***	0.014***	0.014***	0.014***	0.015***	0.008***
	(6.92)	(6.52)	(6.62)	(6.62)	(6.45)	(6.75)	(3.38)
	0.005	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	*0.003*
Widowed	-0.121*	-0.152**	-0.152**	-0.152**	-0.125	-0.113	-0.108
	(-1.72)	(-2.05)	(-2.05)	(-2.05)	(-1.50)	(-1.34)	(-1.26)
	-0.041	*-0.051*	*-0.051*	*-0.051*	*-0.043*	*-0.039*	*-0.037*
Divorced	0.000	-0.014	-0.014	-0.014	-0.037	-0.032	-0.059
	(0.01)	(-0.36)	(-0.35)	(-0.34)	(-0.84)	(-0.71)	(-1.31)
	0.000	*-0.005*	*-0.005*	*-0.005*	*-0.013*	*-0.011*	*-0.020*
Separate	0.043	0.048	0.047	0.047	0.048	0.036	-0.016
	(0.63)	(0.68)	(0.67)	(0.67)	(0.61)	(0.46)	(-0.19)
	0.015	*0.017*	*0.017*	*0.017*	*0.017*	*0.013*	*-0.006*
Never married	0.033	0.022	0.021	0.021	0.015	0.017	-0.001
	(1.25)	(0.82)	(0.77)	(0.77)	(0.51)	(0.56)	(-0.02)
	0.011	*0.008*	*0.007*	*0.009*	*0.005*	*0.006*	*-0.000*
Part-time worker	0.095***	0.091***	0.089***	0.089***	0.086***	0.087**	0.044
	(3.26)	(3.03)	(2.94)	(2.95)	(2.59)	(2.56)	(1.24)
	0.033	*0.032*	*0.031*	*0.032*	*0.031*	*0.031*	*0.015*
Self-employed	-0.083**	-0.093***	-0.097***	-0.097***	-0.084**	-0.052	-0.030
	(-2.43)	(-2.63)	(-2.70)	(-2.69)	(-2.17)	(-1.29)	(-0.74)
	-0.028	*-0.032*	*-0.033*	*-0.033*	*-0.029*	*-0.018*	*-0.010*
Church attendance	-0.020***	-0.019***	-0.019***	-0.019***	-0.015***	-0.014**	-0.009
	(-4.05)	(-3.82)	(-3.89)	(-3.90)	(-2.82)	(-2.51)	(-1.43)
	-0.007	*-0.007*	*-0.007*	*-0.007*	*-0.005*	*-0.005*	*-0.003*
Religious	-0.136***	-0.134***	-0.133***	-0.133***	-0.124***	-0.129***	-0.090***
	(-7.39)	(-7.10)	(-7.05)	(-7.04)	(-6.05)	(-6.26)	(-4.15)
	-0.047	*-0.047*	*-0.046*	*-0.046*	*-0.044*	*-0.046*	*-0.031*
Follow politics	-0.003	-0.005	-0.004	-0.004	-0.006	-0.001	0.010
in the news	(-0.36)	(-0.60)	(-0.50)	(-0.50)	(-0.59)	(-0.08)	(1.00)
	-0.001	*-0.002*	*-0.001*	*-0.001*	*-0.002*	*-0.000*	*-0.004*
Trust in		-0.016	-0.013	-0.013	-0.020	-0.020	-0.007
trade unions		(-1.20)	(-0.96)	(-0.98)	(-1.33)	(-1.30)	(-0.44)
		-0.006	*-0.005*	*-0.005*	*-0.007*	*-0.007*	*-0.002*
Trust in		-0.093***	-0.093***	-0.093***	-0.096***	-0.095***	-0.086***
education system		(-6.58)	(-6.57)	(-6.56)	(-6.23)	(-6.04)	(-5.19)
		-0.032	*-0.032*	*-0.032*	*-0.034*	*-0.034*	*-0.030*
Belong to			-0.030	-0.032	-0.035	-0.033	-0.013
trade union			(-1.23)	(-1.27)	(-1.26)	(-1.22)	(-0.43)
			-0.010	*-0.011*	*-0.012*	*-0.012*	*-0.005*
Belong to			-0.022	-0.0254	-0.023	-0.010	-0.012
professional			(-0.61)	(-0.64)	(-0.56)	(-0.24)	(-0.28)
association			*-0.007*	*-0.009*	*-0.008*	*-0.004*	*-0.004*
Unpaid voluntary				0.018	0.010	0.014	-0.002
work for				(0.36)	(0.18)	(0.26)	(-0.04)
trade union				*0.006*	*-0.003*	*0.005*	*-0.001*
Unpaid voluntary				0.011	0.000	0.010	-0.018
work for				(0.17)	(0.01)	(0.16)	(-0.27)
professional associations				*0.004*	*0.000*	*0.004*	*-0.006*
Rightist					-0.032***	-0.031***	-0.028***
					(-5.65)	(-5.28)	(-4.58)
					-0.011	*-0.011*	*-0.010*
Free making						-0.020***	-0.019***
decisions in the job						(-4.36)	(-3.97)
						-0.007	*-0.007*
Country fixed effects	No	No	No	No	No	No	Yes
N	18204	17191	17191	17191	14537	14140	14140
Prob>chi2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Pseudo R2	0.052	0.052	0.052	0.052	0.054	0.055	0.088

Notes: Coefficients in bold, *z*-statistics in parentheses, marginal effects in italics. The symbols *, **, *** represent statistical significance at the 10%, 5%, and 1% levels, respectively. We report the marginal effects of the highest score.

Table 5: Work as a Duty Towards Society

Dependent variable	**Work is a duty towards society**						
Independent variables	**(22)**	**(23)**	**(24)**	**(25)**	**(26)**	**(27)**	**(28)**
Eastern Europe	0.026	0.058***	0.057***	0.057***	0.055***	0.062***	
	(1.49)	(3.19)	(3.12)	(3.09)	(2.72)	(2.98)	
	0.007	*0.015*	*0.015*	*0.015*	*0.015*	*0.017*	
Age	0.011***	0.011***	0.011***	0.011***	0.010***	0.010***	0.012***
	(12.60)	(11.70)	(11.65)	(11.64)	(10.19)	(9.98)	(11.97)
	0.003	*0.003*	*0.003*	*0.003*	*0.003*	*0.003*	*0.003*
Female	-0.058***	-0.064***	-0.064***	-0.063***	-0.056***	-0.057***	-0.036*
	(-3.23)	(-3.45)	(-3.47)	(-3.44)	(-2.76)	(-2.81)	(-1.76)
	-0.015	*-0.017*	*-0.017*	*-0.017*	*-0.015*	*-0.015*	*-0.009*
Education	-0.018***	-0.018***	-0.018***	-0.018***	-0.018***	-0.018***	-0.011***
	(-10.66)	(-10.28)	(-10.08)	(-10.09)	(-9.58)	(-9.64)	(-5.77)
	-0.005	*-0.005*	*-0.005*	*-0.005*	*-0.005*	*-0.005*	*-0.003*
Widowed	0.054	0.033	0.031	0.032	0.034	0.006	0.032
	(0.95)	(0.54)	(0.52)	(0.54)	(0.48)	(0.08)	(0.43)
	0.015	*0.009*	*0.008*	*0.009*	*0.009*	*0.002*	*0.008*
Divorced	-0.155***	-0.134***	-0.136***	-0.136****	-0.141***	-0.146***	-0.106***
	(-4.66)	(-3.90)	(-3.93)	(-3.93)	(-3.74)	(-3.83)	(-2.75)
	-0.039	*-0.034*	*-0.034*	*-0.034*	*-0.036*	*-0.037*	*-0.027*
Separate	-0.116*	-0.100	-0.100	-0.097	-0.048	-0.047	-0.012
	(-1.70)	(-1.44)	(-1.43)	(-1.39)	(-0.61)	(-0.59)	(-0.16)
	-0.029	*-0.026*	*-0.025*	*-0.025*	*-0.012*	*-0.012*	*-0.003*
Never married	-0.081***	-0.084***	-0.083***	-0.083***	-0.082***	-0.082***	-0.044
	(-3.50)	(-3.53)	(-3.47)	(-3.45)	(-3.14)	(-3.09)	(-1.60)
	-0.021	*-0.022*	*-0.022*	*-0.022*	*-0.021*	*-0.021*	*-0.011*
Part-time worker	-0.192***	-0.199***	-0.199***	-0.199***	-0.199***	-0.189***	-0.159***
	(-7.18)	(-7.31)	(-7.26)	(-7.27)	(-6.52)	(-6.12)	(-5.05)
	-0.048	*-0.049*	*-0.049*	*-0.049*	*-0.049*	*-0.047*	*-0.039*
Self-employed	-0.013	-0.001	0.005	0.004	-0.002	-0.010	-0.051
	(-0.45)	(-0.03)	(0.18)	(0.14)	(-0.05)	(-0.29)	(-1.50)
	-0.003	*-0.000*	*0.001*	*0.001*	*-0.000*	*-0.003*	*-0.013*
Church attendance	0.044***	0.044***	0.044***	0.044***	0.044***	-0.044***	0.024***
	(10.52)	(10.19)	(10.23)	(10.18)	(9.39)	(9.20)	(4.49)
	0.012	*0.012*	*0.012*	*0.012*	*0.012*	*0.012*	*0.006*
Religious	0.086***	0.078***	0.077***	0.077***	0.073***	0.077***	0.096***
	(5.09)	(4.49)	(4.45)	(4.44)	(3.90)	(4.06)	(4.84)
	0.023	*0.021*	*0.021*	*0.021*	*0.020*	*0.021*	*0.025*
Follow politics	0.028***	0.025***	0.025***	0.025***	0.025***	0.022**	0.023**
in the news	(3.72)	(3.21)	(3.22)	(3.24)	(2.78)	(2.46)	(2.54)
	0.007	*0.007*	*0.007*	*0.007*	*0.007*	*0.006*	*0.006*
Trust in		0.056***	0.053***	0.053***	0.048***	0.049***	0.042***
trade unions		(4.73)	(4.45)	(4.45)	(3.61)	(3.64)	(3.09)
		0.015	*0.014*	*0.014*	*0.013*	*0.013*	*0.011*
Trust in		0.122***	0.122***	0.121***	0.120***	0.116***	0.141***
education system		(9.47)	(9.45)	(9.43)	(8.54)	(8.14)	(9.34)
		0.032	*0.032*	*0.032*	*0.032*	*0.031*	*0.037*
Belong to			0.022	0.025	0.025	0.024	0.081***
trade union			(1.09)	(1.17)	(1.07)	(1.02)	(3.03)
			0.006	*0.007*	*0.007*	*0.006*	*0.021*
Belong to			-0.028	-0.067*	-0.057	-0.069*	-0.059
professional			(-0.92)	(-1.94)	(-1.56)	(-1.86)	(-1.55)
association			*-0.007*	*-0.018*	*-0.015*	*-0.018*	*-0.015*
Unpaid voluntary				-0.017	-0.019	-0.023	-0.055
work for				(-0.37)	(-0.39)	(-0.46)	(-1.09)
trade union				*-0.004*	*-0.005*	*-0.006*	*-0.014*
Unpaid voluntary				0.130**	0.128**	0.127**	0.130**
work for				(2.33)	(2.21)	(2.18)	(2.22)
professional associations				*0.036*	*0.036*	*0.036*	*0.036*
Rightist					0.009*	0.008	0.008
					(1.71)	(1.51)	(1.49)
					0.002	*0.002*	*0.002*
Free making						0.010**	0.013***
decisions in the job						(2.35)	(3.14)
						0.003	*0.003*
Country fixed effects	No	No	No	No	No	No	Yes
N	17917	16833	16833	16833	14171	13783	13783
Prob>chi2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Pseudo R2	0.020	0.023	0.023	0.023	0.023	0.023	0.037

Notes: Coefficients in bold, *z*-statistics in parentheses, marginal effects in italics. The symbols *, **, *** represent statistical significance at the 10%, 5%, and 1% levels, respectively.

Next, we explore the relationship between Protestantism and work ethic. The variable that expresses the strongest work centrality would be "work should always come first, even if it means less spare time." We therefore use this variable as the dependent variable and extend the first six specifications reported in the previous tables with a dummy variable for being Protestant. We also control for income in these specifications. We added the income variable sequentially due to some issues with the construction. The household income variable covers a ten-point scale based on income decile counting all wages, salaries, pensions and other incomes that come in (after taxes and other deductions). However, the ten-point income scale is based on national currencies, which precludes conducting a cross-country comparison. A proxy for economic situation could be regarded as the respondent's self-classification into various economic classes. However, this variable has not been collected in all countries. It therefore makes sense (because of missing variables) to include the variable sequentially. Interestingly, we observe a positive correlation between being Protestant and work ethic. The coefficient is always statistically significant at the 1% level. Thus, this result is compatible with Weber's thesis, since the specific work ethic only provides incentives if the individual seeks salvation by hard work and an ascetic lifestyle.

Another interesting result is that we observe a negative correlation between income and work ethic. It may be that a higher income reduces the need to prioritize work centrality, however, causal direction is not clear as work centrality may lead to higher income levels. Thus, the quantitative effects should be treated with caution. This is another reason why we have included the variable sequentially into the specifications. As our aim is to show "better correlations" under a ceteris paribus assumption, we avoid a detailed discussion on identifying the pattern of causality in

this relationship (e.g. instrumental variable approach). Longitudinal investigations could provide a better analysis. It is highly likely that a mutual influence exists, although it is unclear which direction has a greater impact.

Table 6: Protestantism, Work Ethic and Income

Dependent variable	**Work Should Always Come First**					
Independent variables	**(29)**	**(30)**	**(31)**	**(32)**	**(33)**	**(34)**
Protestant	0.086***	0.088***	0.101***	0.103***	0.097***	0.099***
	(3.33)	(3.32)	(3.70)	(3.79)	(3.30)	(3.35)
	0.018	*0.018*	*0.021*	*0.022*	*0.020*	*0.020*
Income	-0.017***	-0.017***	-0.015***	-0.015***	-0.021***	-0.023***
	(-4.33)	(-4.08)	(-3.75)	(-3.79)	(-4.67)	(-5.07)
	-0.003	*-0.003*	*-0.003*	*-0.003*	*-0.004*	*-0.004*
Same independent variables as used in *Tables 2-5*	Yes	Yes	Yes	Yes	Yes	Yes
N	15247	14369	14369	14369	12219	11895
Prob>chi2	0.000	0.000	0.000	0.000	0.000	0.000
Pseudo R2	0.040	0.043	0.043	0.043	0.046	0.046

Notes: The symbols *** represent statistical significance at the 1% levels. We report the marginal effects of the highest score (dependent variable).

In *Table 7* we extend this analysis, including the income variable in three out of the former reported specifications. Compared to, e.g., *Table 2* we report a summary of specification 1, 6 and 7 adding the income variable to these former specifications (in *Table 7*). In other words, we are focusing on three specifications used previously in all tables, namely the first one and the last two. The results in *Table 7* indicate that income is also negatively correlated with the other work centrality factors explored in previous tables although the coefficient for income is not statistically significant in decreasing the work importance. It should be noted that we use a static concept of income, whereas Hamermesh (2001) found that changes in earnings affect job satisfaction and that effects of earnings shocks on job satisfaction dissipate over time. Moreover, focusing only on absolute income does not allow to check whether income

is evaluated relative to some comparison level. In this case absolute income may act as a poor measure of relative income (Clark 1996). However, the concept of relative income may be more for an investigation of job satisfaction than it is for the work values explored in this study.

Table 7: Income and Work Centrality

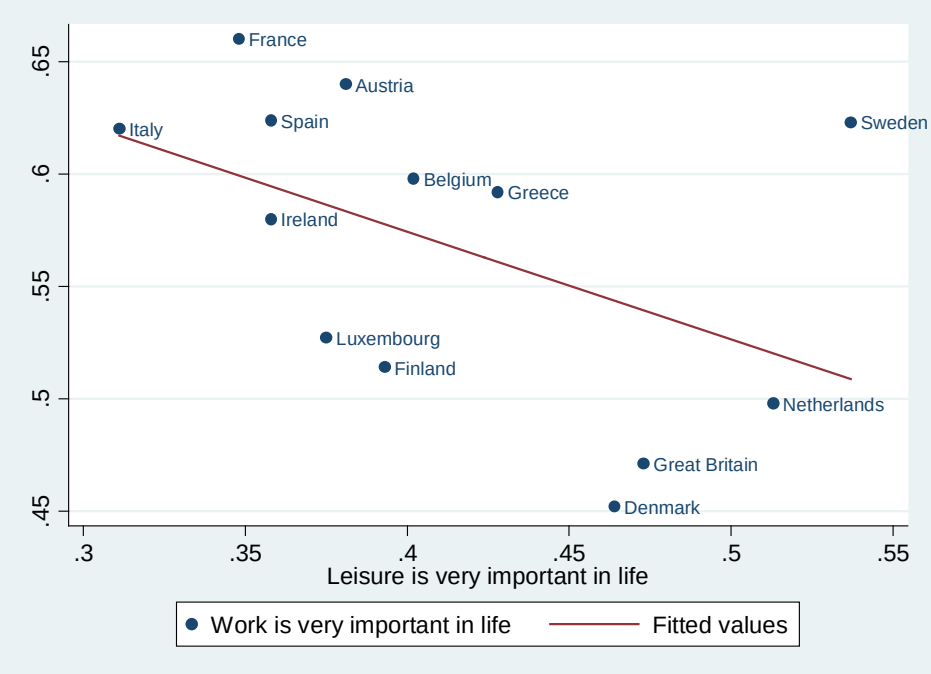
Dependent variable	**Importance of work in life**		
Independent variables	**(35)**	**(36)**	**(37)**
Income	-0.013***	-0.018***	-0.017***
	(-2.91)	(-3.49)	(-2.92)
	-0.005	*-0.007*	*-0.006*
First and last two specifications as used in *Tables 2-5*	Yes	Yes	Yes
Country fixed effects	No	No	Yes
N	16062	12507	12507
Prob>chi2	0.000	0.000	0.000
Pseudo R2	0.016	0.023	0.049

Dependent variable	**Work is a duty towards society**		
Independent variables	**(38)**	**(39)**	**(40)**
Income	-0.015***	-0.021***	-0.022***
	(-3.82)	(-4.70)	(-4.51)
	-0.004	*-0.006*	*-0.006*
First and last two specifications as used in *Tables 2-5*	Yes	Yes	Yes
Country fixed effects	No	No	Yes
N	15256	11902	11902
Prob>chi2	0.000	0.000	0.00
Pseudo R2	0.020	0.023	0.036

Dependent variable	**Decrease of Work Importance**		
Independent variables	**(41)**	**(42)**	**(43)**
Income	-0.002	0.001	0.014**
	(-0.46)	(0.24)	(2.39)
	-0.001	*0.000*	*0.005*
First and last two specifications as used in *Tables 2-5*	Yes	Yes	Yes
Country fixed effects	No	No	Yes
N	15471	12194	12194
Prob>chi2	0.000	0.000	0.00
Pseudo R2	0.057	0.059	0.091

It is still unclear whether work values crowd-out family and leisure values in Eastern Europe. If the lower work centrality in Western Europe is derived by choice we would observe a higher preference for leisure. In other words, countries with lower work centrality should have higher preferences for leisure. On the other hand, if countries experience real economic constraints we may observe no relationship or even a (strong) positive relationship if work efforts allow one to conduct activities such as leisure. Thus, economic need and scarcity of resources may play a major role. It might be possible to explain this with the notion of Maslovian needs-reduction: increasing living standards, economic security and no-major institutional shifts allows for the trade-off experience between work and leisure. We explore this aspect in a primitive manner by using scatterplots that demonstrate the relationship; first for countries in the European Union (see *Figure 6*) and then Eastern European countries (see *Figure 7)*. In line with previous figures we use average values of the first four World Values Survey waves.

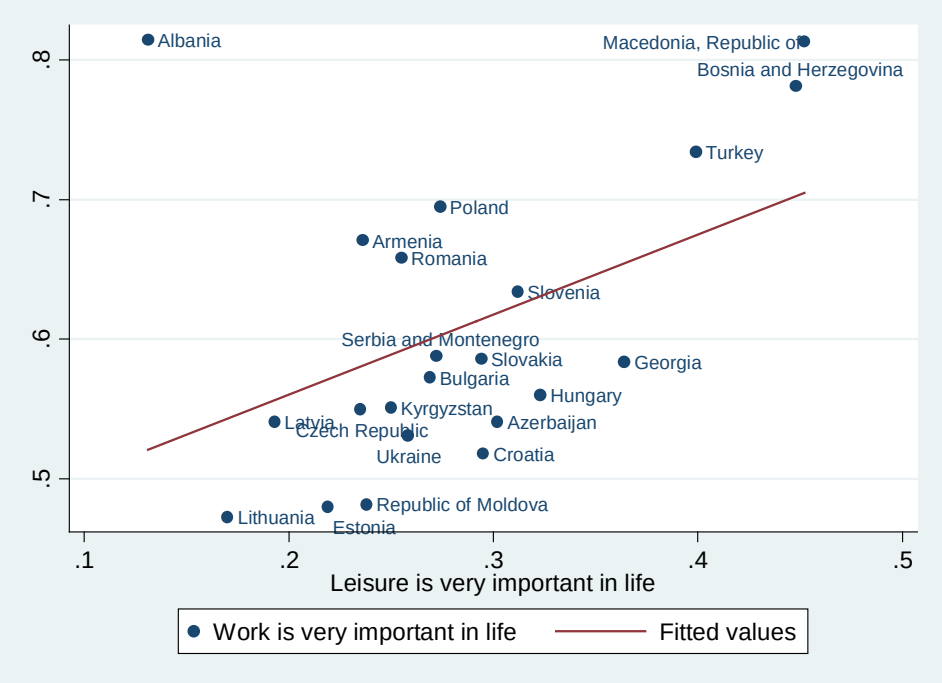
Figure 6: Work and Leisure Centrality in EU-15 Countries



Note: Portugal has been omitted as an extreme outlier.

Interestingly, *Figure 6* reports a negative correlation between work and leisure values (r=-0.47). Sweden appears as an outlier. Excluding Sweden would lead to a substantially stronger negative correlation (r=-75). On the other hand, *Figure 7* shows a positive correlation (r=0.44). Similarly, if we exclude the outlier Albania, the positive correlation increases significantly (r=0.77). Such a result may indicate that countries in Eastern Europe who experience (financial) restrictions may have limited ability to promote leisure centrality.

Figure 7: Work and Leisure Centrality in Eastern Europe



We now consider family values. There is a growing literature that explores the work-family conflict (for early overviews see Greenhaus and Beutell 1985, Hansen 1991). Poelmans and Sahibzada (2004) introduce their study with the statement: "The integration of women in the labour force in Europe, as in most developing and developed countries, has led to the intensification of conflict between work and family

in the lives of many individuals. From a historical point of view, this shift from traditional to dual-earner families is a revolution because it has radically changed the way we conceive work and working schedules, gender roles and relationships, and the distribution of domestic and educational tasks in families" (pp. 409-410). As an example, the proportion of dual-earner couples in the US has doubled between the 1960s and the late 1980s. Because multiple roles compete for a person's time, this leads to time-based conflicts. In other words, there is too much to do and too little time to handle it (Hansen 1991, p. 348). Moreover, strains created by one environment make it difficult to meet the demands of another environment (Greenhaus and Beutell 1985). This has led to considerable debates about the social significance of behavioral shifts in employment and household arrangements (Bielby 1992). In the last few decades, there has been increased interest in addressing work-family conflicts by exploring family-friendly policies (Poelmans and Sahibzada 2004). If one (or society in general) experiences financial limitations, then work centrality can substantially improve the family conditions and the relative income position. On the other hand, in societies where financial problems are less severe, it is less clear whether work values promote family values. *Figure 8* reports the situation for Eastern Europe and *Figure 9* for EU-15 countries. We observe a very strong and positive correlation between work and family centrality (r=0.76) for Eastern Europe. However, *Figure 8* shows a positive but a substantially smaller correlation (r=0.37) for Western Europe.

Figure 8: Work and Family Centrality in Eastern Europe

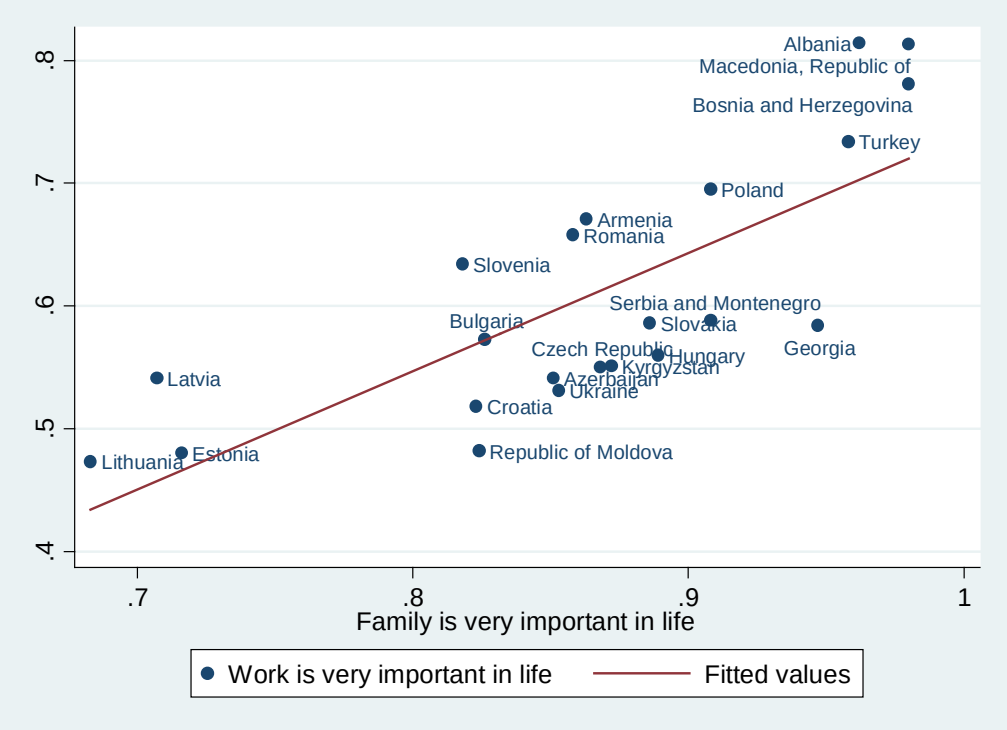
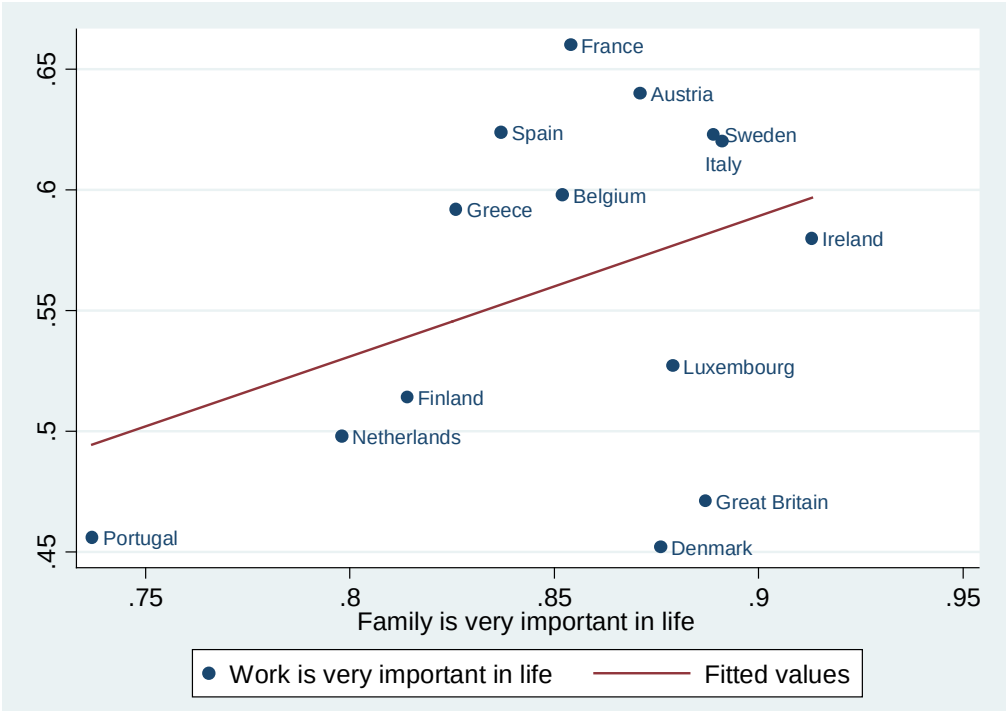


Figure 9: Work and Family Centrality in EU-15 Countries



Now, if one assumes that work is more of a necessity rather than pleasure in Eastern Europe, this raises the question of whether hard work is perceived as an important quality that children are encouraged to learn at home. We speculate that we may not observe a positive relationship, particularly if parents (or the society in general) hope to improve the economic situation in the future for their children (less need to improve financial situation). On the contrary, we may even observe a negative relationship, especially if it is extrinsically driven. On the other hand, in a high income society, there is a better chance of transferring values to children that one really intrinsically "believes in". Frey (1997) points out that "increasing role of intrinsic work motivation in economically advanced societies leads firm's executives to make a greater effort to maintain work morale which is better achieved by increasing participation" (p. 101).

The following two figures represent the link between importance of work and the importance of passing on the work ethic to children. There is indeed a relatively strong negative relationship in Eastern Europe as shown in *Figure 10* (r=-0.626) compared to hardly any relationship in EU-15 countries (*Figure 11*).

Figure 10: Work Importance and Hard Work as Quality to Encourage Children in Eastern Europe

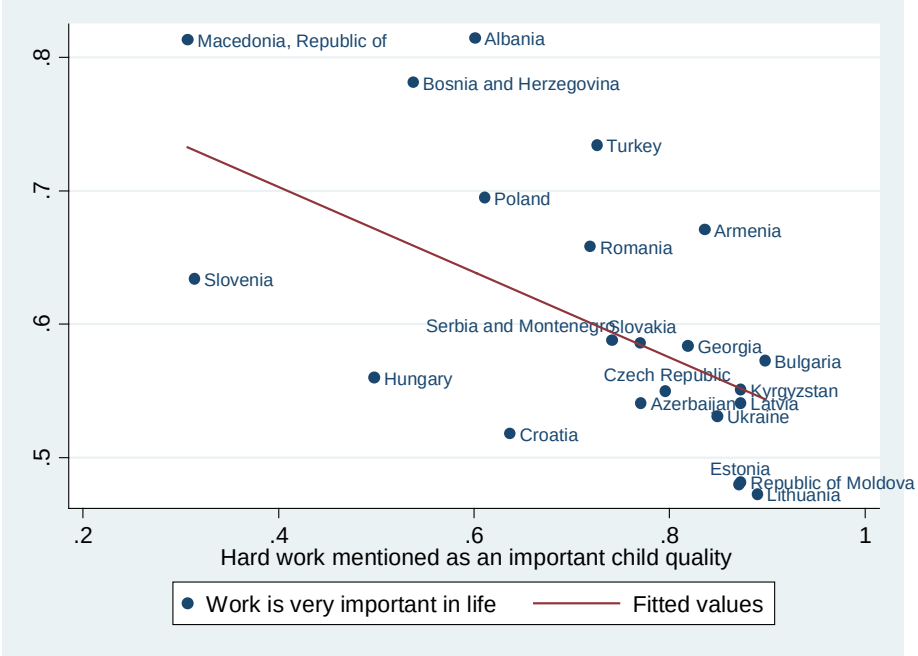
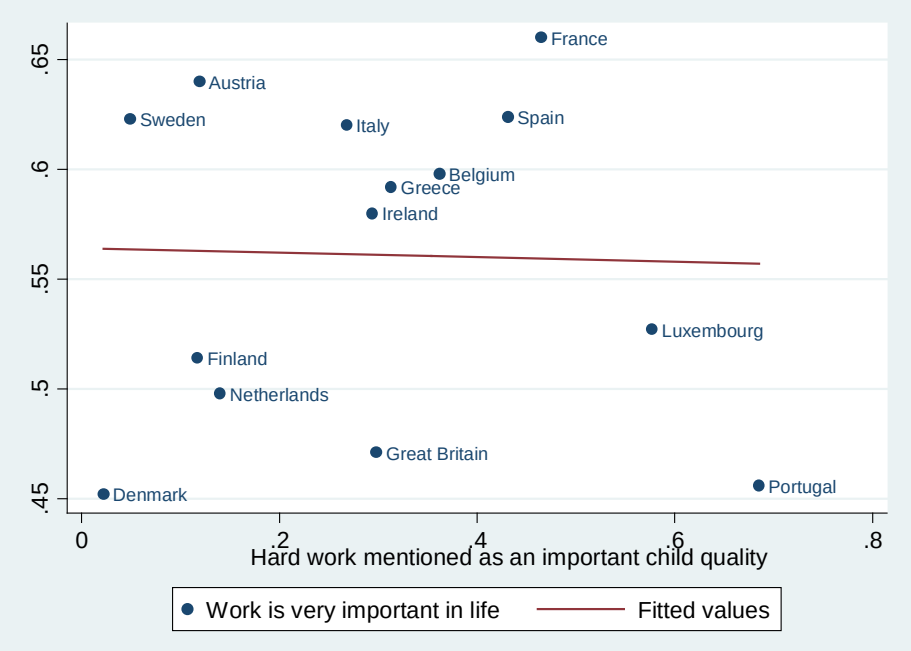


Figure 11: Work Importance and Hard Work as Quality to Encourage Children in EU-15 Countries



We now return to Schwartz's (1999) classification regarding societal norms about work. He points out that societal norms are expected to define work as an entitlement such that all workers deserve similar outcomes (*Egalitarianism*) providing the opportunity for interesting and meaningful work (*Intellectual Autonomy*). On the other hand, in societies where *Conservatism* and *Hierarchy* values are especially important, societal norms are expected to define work as more of an obligation. This may require workers to "accept the role obligations imposed on them and to fit into the institutional arrangements provided, regardless of personal satisfactions" (p. 42).

To get a better idea of elements such as interesting and meaningful work, we need to take a closer look at the aspects of a job that are reported as important. We therefore consider the following elements[10]: *Good job, pleasant people to work with, not too much pressure, good job security, good chances for promotion, a job respected by people in general, good hours, an opportunity to use initiative, a useful job for society, generous holidays, meeting people, a job in which you feel you can achieve something, a responsible job, a job that is interesting, and a job that meets one's abilities*. These questions also allow us to explore what Schwartz (1999, p. 43) defines as core goals: intrinsic (personal growth, autonomy, interest, and creativity), extrinsic (pay and security), social (contact with people and contribution to society), and power (prestige, authority, influence). Schwartz (1999) points out that these elements depend in part on the prevailing cultural values in a society. Goals chosen by managers to motivate workers will be more effective if they are in line with the prevailing cultural emphases. The pursuit of power values should be more acceptable in cultures where *Hierarchy* and *Mastery* values are emphasized. In such cultures, the use of power and prestige is therefore a more effective tool with which to reward

[10] Question was framed: Here are some aspects of a job that people say are important. Please look at them and tell me which ones you personally think are important in a job? (mentioned or not).

workers. The pursuit of these values is more individually or organisational driven which would be less prevalent in a society where *Harmony* and *Egalitarianism* are important. The pursuit of intrinsic work values, personal growth and the opportunity for creativity and autonomy are more likely to be seen as desirable and justifiable in societies where *Autonomy* is emphasized. In contrast, *Conservatism* diminishes such work goals. A general summary of dimensions of work and the cultural values emphasized is presented in *Table 8*. We use Schwartz's (1999) classification and apply it to proxies obtained from the WVS. As can be seen in *Table 8*, some work values appear in more than one classification. For example, a job in which you feel you can achieve something might be driven by power or intrinsic values. Clearly, our classification within these different dimensions of work is not perfect, and is thus open to criticism.

Masuda et al. (2011) argue that intrinsic job characteristics are strongly related with job satisfaction in individualistic and more economically developed countries. Thus, we may expect to observe direct work value differences between Eastern and Western Europe. Halman (1996) also points out that work "in modern affluent societies is no longer only a biological and economic necessity. It is also and foremost an intrinsically rewarding and creative activity" (p. 4). He also stresses in Halman (2010) that an increase in prosperity goes hand in hand with the reinforcement of an intrinsic work orientation. On the other hand, an economic recession and rising levels of unemployment are likely to focus material priorities. Halman (1996, p. 4) argues that in"terms of values, the shift occurred in the domain of work, has been more an emphasis on extrinsic or instrumental work orientation towards values stressing creativity, autonomy and self-expression and personal development" (Halman 1996, p. 4). He also points out that countries in Eastern Europe are lagging behind with

respect to modernization and individualization, which may reduce the emphasis on self-expression.

Table 8: Work and Cultural Values

Dimensions of Work	*Cultural Values Emphases*	
	Compatible	*Conflicting*
Society Norms about Working Entitlement vs. Obligation	Egalitarianism Intellectual Autonomy	Conservatism Hierarchy
Work Values		
Power - A job in which you feel you can achieve something - A job that meets one's ability - Good pay - Good chances of promotion - A job respected by people in general	Hierarchy Mastery	Harmony Egalitarianism
Intrinsic - An opportunity to use initiative - A job that is interesting - A job in which you feel you can achieve something - A job that meets one's ability	Intellectual Autonomy Affective Autonomy	Conservatism
Extrinsic WVS proxies: - Good pay - Good job security - Good chances for promotion - Good hours - Generous holidays - A job respected by people in general	Conservatism Hierarchy	Intellectual Autonomy
Social WVS proxies: - Pleasant people to work with. - Meeting people - A useful job for society	Egalitarianism Harmony	Hierarchy Mastery

Source: Schwartz (1999, p. 41) and own categorization of factors based on the World Values Survey.

As mentioned previously, these variables have not been explored intensively on the dependent side. Taking into account that national governments and supranational bodies make references to more and better jobs, it is not difficult to build a case for the importance of such variables (Green and Tsitsianis 2005). One of the aspects most frequently analysed is probably job security. For example, Blanchflower and Oswald

(1999) explore individuals' perceived job security directly by working with International Social Survey Programme data that asks the question: "How much do you agree or disagree that your job is secure?". They find that job security is greater among older workers, those who supervise, and people working in the public sector. Moreover, as an independent variable, the expectations of possible job loss has one of the largest reported negative effects on job satisfaction. The radical restructuring of American business in the 1980s has transformed secure work environments into insecure environments. More than a million white collar jobs were lost within a period of two years, as merging, downsizing, divesting or restructuring were carried out based on changing technological and economic conditions. Even the public sector was affected by privatizations and budget cuts (Roskies et al. 1993). Similarly, 42 percent of US organisations conducted employee layoffs in 2000 and 2001, reducing 10-13 percent of the workforce on average (Probst and Lawler 2006, p. 235). Moreover, the *anticipation* of job security may exert effects similar to experiencing the harm itself, and job insecurity is a predictor of increased psychological stress or medical consultations (Roskies et al. 1993). A corporate downsizing also breaks the psychological contract between hard work and corporate loyalty. Even after the downsizing process is completed, this leads to distrust and speculation among the remaining workers as to whether they will be next (Probst and Lawler 2006). It can also reduce workers' locus of control; defined by Chen et al. (2004) as the "belief that people control outcomes at work, such as promotions, layoffs, and salary levels" (p. 355). Green and Tsitsianis (2005) observe that job security is a major determinant of job quality, but job insecurity is not a plausible explanation of declining job satisfaction in Britain. Furthermore, even as insecurity increased during the 1990s in Germany, insecurity alone fails to account for the changes observed in that country.

The following empirical exercise will also allow a better exploration of further work-role factors that are essential to an understanding of job satisfaction (Sousa-Poza and Sousa-Poza 2000 but have not been intensively studied as dependent variables. Previous research has found, for example, that preferences towards pay and promotion (extrinsic factors) are negatively correlated with job satisfaction, whereas an emphasis on relations (intrinsic element) at work is associated with higher job satisfaction (Clark 1997).

We report the results in *Table 9* and *10*. For simplicity, we only report the estimations calculated on the full set of variables. Based on the results of the previous estimations, it is relevant to include regional differences. Souza-Poza and Sousa-Poza (2000) conclude that work-role factors differ substantially from country to country, a result that is clearly borne out in our study. We observe that people from Eastern Europe are driven by extrinsic rather than intrinsic motivations; and are more interested in power than social aspects. They care more about good pay, job security, and the chance of promotion than they do about the opportunity of using initiative, the feeling that you can achieve something or a job with responsibility. They also care less about meeting people and having the chance to work with pleasant people. On average, Eastern Europeans care more about having a job that is respected by other people and is useful for society. They also rank generous holidays, not too much pressure, and good hours as important, although the last factor does not report a statistically significant difference. These results also support our previous findings and the classification developed by Schwartz (1999). Good pay and job security are among the factors with the strongest regional differences when comparing the marginal/quantitative effects. This may provide indirect validation of the speculations regarding financial restrictions (see *Figures 6* to *11*).

Table 9: Elements of Work (Part I)

Dependent variables	**Good pay**	**Pleasant people**	**Limited pressure**	**Job security**	**Chance promotion**	**Respected by people**	**Good hours**	**Use initiative**
Independent variables	**(29)**	**(30)**	**(31)**	**(32)**	**(33)**	**(34)**	**(35)**	**(36)**
Eastern Europe	0.502***	-0.123***	0.195***	0.272***	0.192***	0.277***	0.026	-0.215***
	(17.45)	(-4.90)	(8.11)	(11.24)	(8.07)	(11.82)	(1.10)	(-9.11)
	0.120	*-0.040*	*0.073*	*0.099*	*0.074*	*0.110*	*0.010*	*-0.085*
Age	-0.012***	-0.006***	-0.001	-0.000	-0.012***	0.001	-0.005***	-0.007***
	(-8.50)	(-4.78)	(-1.18)	(-0.18)	(-10.52)	(0.78)	(-4.30)	(-6.39)
	-0.003	*-0.002*	*-0.001*	*-0.000*	*-0.005*	*0.000*	*-0.002*	*-0.003*
Female	-0.198***	0.137***	-0.021	-0.024	-0.128***	-0.042*	0.109***	-0.061**
	(-7.02)	(5.32)	(-0.85)	(-0.97)	(-5.29)	(-1.77)	(4.60)	(-2.57)
	-0.050	*0.044*	*-0.008*	*-0.009*	*-0.049*	*-0.017*	*0.043*	*-0.024*
Education	-0.008***	0.005*	-0.016***	-0.032***	0.004*	0.001	-0.015***	0.027***
	(-3.29)	(1.91)	(-6.50)	(-12.45)	(1.80)	(0.56)	(-6.70)	(10.63)
	-0.002	*0.002*	*-0.006*	*-0.012*	*0.002*	*0.001*	*-0.006*	*0.011*
Widowed	-0.061	-0.072	-0.152*	0.042	-0.062	-0.046	-0.013	-0.214***
	(-0.71)	(-0.89)	(-1.87)	(0.50)	(-0.78)	(-0.59)	(-0.17)	(-2.74)
	-0.015	*-0.024*	*-0.055*	*0.015*	*-0.024*	*-0.018*	*-0.005*	*-0.085*
Divorced	0.067	-0.083*	-0.056	-0.023	-0.061	-0.078*	-0.025	-0.049
	(1.36)	(-1.84)	(-1.25)	(-0.52)	(-1.38)	(-1.82)	(-0.59)	(-1.14)
	0.016	*-0.027*	*-0.021*	*-0.008*	*-0.024*	*-0.031*	*-0.010*	*-0.020*
Separate	-0.093	-0.099	-0.044	-0.238***	-0.163*	-0.144*	-0.047	-0.053
	(-0.95)	(-1.09)	(-0.49)	(-2.77)	(-1.89)	(-1.68)	(-0.55)	(-0.62)
	-0.024	*-0.033*	*-0.016*	*-0.091*	*-0.061*	*-0.057*	*-0.019*	*-0.021*
Never married	-0.010	0.137***	0.114***	-0.047	0.128***	0.023	-0.012	0.027
	(-0.27)	(4.03)	(3.66)	(-1.48)	(4.17)	(0.75)	(-0.40)	(0.87)
	-0.002	*0.043*	*0.043*	*-0.017*	*0.050*	*0.009*	*-0.005*	*0.011*
Part-time worker	-0.122***	-0.040	0.042	-0.128***	-0.086**	0.034	0.137***	-0.045
	(-3.04)	(-1.02)	(1.15)	(-3.53)	(-2.37)	(0.95)	(3.81)	(-1.26)
	-0.032	*-0.013*	*0.016*	*-0.048*	*-0.033*	*0.013*	*0.054*	*-0.018*
Self-employed	-0.071	-0.090**	0.113***	-0.199***	-0.009	0.108***	-0.069*	0.247***
	(-1.58)	(-2.22)	(2.94)	(-5.14)	(-0.24)	(2.83)	(-1.82)	(6.30)
	-0.018	*-0.030*	*0.043*	*-0.076*	*-0.004*	*0.043*	*-0.028*	*0.096*
Church attendance	0.026***	0.011*	0.061***	0.046***	0.047***	0.043***	0.053***	0.042***
	(3.92)	(1.81)	(10.81)	(8.18)	(8.46)	(7.90)	(9.72)	(7.68)
	0.006	*0.003*	*0.022*	*0.017*	*0.018*	*0.017*	*0.021*	*0.017*
Religious	-0.038	0.017	0.013	0.066***	-0.004	0.072***	-0.066***	-0.029
	(-1.49)	(0.75)	(0.58)	(3.06)	(-0.18)	(3.40)	(-3.11)	(-1.36)
	-0.010	*0.006*	*0.005*	*0.024*	*-0.002*	*0.029*	*-0.026*	*-0.012*
Belong to	0.008	0.129***	-0.062**	0.037	-0.115***	-0.099***	0.060**	0.003
trade union	(0.23)	(4.22)	(-2.15)	(1.28)	(-4.06)	(-3.55)	(2.14)	(0.10)
	0.002	*0.041*	*-0.023*	*0.135*	*-0.044*	*-0.039*	*0.024*	*0.001*
Belong to	-0.015	0.130***	0.079*	-0.079*	0.094**	0.230***	-0.124***	0.294***
professional	(-0.30)	(2.75)	(1.79)	(-1.80)	(2.14)	(5.33)	(-2.89)	(6.54)
association	*-0.004*	*0.041*	*0.030*	*-0.029*	*0.036*	*0.092*	*-0.050*	*0.114*
Unpaid voluntary	-0.088	-0.083	-0.028	0.056	0.168***	0.115**	-0.085	0.095*
work for	(-1.36)	(-1.40)	(-0.49)	(0.97)	(2.99)	(2.09)	(-1.54)	(1.72)
trade union	*-0.023*	*-0.027*	*-0.010*	*0.020*	*0.066*	*0.046*	*-0.034*	*0.037*
Unpaid voluntary	-0.082	0.011	-0.090	-0.114*	0.003	0.055	-0.029	0.094
work for	(-1.11)	(0.15)	(-1.30)	(-1.66)	(0.05)	(0.82)	(-0.44)	(1.34)
professional associations	*-0.021*	*0.003*	*-0.033*	*-0.043*	*0.001*	*0.022*	*-0.012*	*0.037*
Trust in	0.033*	0.047***	0.053***	0.038**	0.007	0.048***	0.058***	-0.007
trade unions	(1.82)	(2.87)	(3.44)	(2.40)	(0.48)	(3.16)	(3.87)	(-0.48)
	0.008	*0.015*	*0.020*	*0.014*	*0.003*	*0.019*	*0.023*	*-0.003*
Trust in	0.031*	0.051***	-0.058***	0.072***	0.005	0.040***	-0.003	0.017
education system	(1.64)	(3.02)	(-3.63)	(4.41)	(0.33)	(2.58)	(-0.22)	(1.10)
	0.008	*0.016*	*-0.021*	*0.027*	*0.002*	*0.016*	*-0.001*	*0.007*
Follow politics	-0.036***	-0.038***	-0.069***	-0.023**	-0.004	-0.006	-0.050***	0.051***
in the news	(-2.96)	(-3.40)	(-6.69)	(-2.15)	(-0.37)	(-0.62)	(-4.94)	(5.04)
	-0.009	*-0.012*	*-0.026*	*-0.008*	*-0.001*	*-0.002*	*-0.020*	*0.020*
Rightist	0.011	0.002	-0.016***	-0.030***	0.016***	0.001	-0.005	0.008
	(1.56)	(0.40)	(-2.75)	(-5.08)	(2.69)	(0.20)	(-0.90)	(1.35)
	0.003	*0.001*	*-0.006*	*-0.011*	*0.006*	*0.000*	*-0.002*	*0.003*
N	14933	14927	14906	14932	14911	14915	14917	14921
Prob>chi2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Pseudo R2	0.047	0.018	0.024	0.036	0.029	0.021	0.019	0.031

Notes: Coefficients in bold, *z*-statistics in parentheses, marginal effects in italics. The symbols *, **, *** represent statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 10: Elements of Work (Part II)

Dependent variables **Independent variables**	**Useful for society (37)**	**Generous holidays (38)**	**Meeting people (39)**	**Achieve something (40)**	**Responsible job (41)**	**Interesting job (42)**	**Meets own abilities (43)**
Eastern Europe	0.089***	0.118***	-0.097***	-0.145***	-0.208***	-0.030	0.100***
	(3.80)	(4.82)	(-4.15)	(-6.12)	(-8.92)	(-1.22)	(4.20)
	0.035	*0.041*	*-0.039*	*-0.056*	*-0.083*	*-0.010*	*0.038*
Age	0.002**	-0.002*	-0.003***	-0.009***	-0.004***	-0.005***	-0.002
	(2.17)	(-1.75)	(-2.95)	(-7.39)	(-3.70)	(-4.15)	(-1.51)
	0.001	*-0.001*	*-0.001*	*-0.003*	*-0.002*	*-0.002*	*-0.001*
Female	0.008	-0.075***	0.140***	-0.065***	-0.119***	0.040	-0.045*
	(0.35)	(-3.01)	(5.91)	(-2.69)	(-5.02)	(1.61)	(-1.86)
	0.003	*-0.026*	*0.056*	*-0.025*	*-0.047*	*0.014*	*-0.017*
Education	0.003	-0.015***	0.003	0.018***	0.004*	0.023***	0.009***
	(1.39)	(-5.83)	(1.29)	(7.85)	(1.67)	(8.81)	(3.66)
	0.001	*-0.005*	*0.001*	*0.007*	*0.002*	*0.008*	*0.003*
Widowed	-0.141*	0.007	-0.065	-0.047	-0.103	-0.130*	-0.213***
	(-1.79)	(0.09)	(-0.85)	(-0.61)	(-1.32)	(-1.65)	(-2.77)
	-0.054	*0.003*	*-0.026*	*-0.018*	*-0.041*	*-0.047*	*-0.082*
Divorced	-0.081*	0.011	-0.009	0.013	-0.006	-0.094**	-0.082*
	(-1.86)	(0.23)	(-0.22)	(0.31)	(-0.13)	(-2.12)	(-1.90)
	-0.032	*0.004*	*-0.004*	*0.005*	*-0.002*	*-0.034*	*-0.031*
Separate	-0.088	-0.050	-0.029	-0.088	-0.039	-0.046	-0.081
	(-1.01)	(-0.55)	(-0.34)	(-1.02)	(-0.46)	(-0.53)	(-0.94)
	-0.034	*-0.017*	*-0.012*	*-0.034*	*-0.015*	*-0.016*	*-0.031*
Never married	0.006	0.073**	0.088***	0.033	-0.031	0.119***	0.024
	(0.21)	(2.31)	(2.88)	(1.05)	(-1.01)	(3.68)	(0.75)
	0.002	*0.026*	*0.035*	*0.013*	*-0.012*	*0.041*	*0.009*
Part-time worker	-0.039	0.031	0.057	-0.112***	-0.164***	-0.127***	-0.026
	(-1.09)	(0.83)	(1.61)	(-3.17)	(-4.65)	(-3.48)	(-0.73)
	-0.015	*0.011*	*0.023*	*-0.044*	*-0.065*	*-0.046*	*-0.010*
Self-employed	0.105***	-0.151***	0.108***	0.216***	0.049	-0.023	0.153***
	(2.76)	(-3.78)	(2.83)	(5.37)	(1.28)	(-0.59)	(3.84)
	0.041	*-0.051*	*0.043*	*0.081*	*0.020*	*-0.008*	*0.056*
Church attendance	0.066***	0.030***	0.025***	0.041***	0.035***	0.010*	0.034***
	(11.96)	(5.23)	(4.60)	(7.39)	(6.45)	(1.68)	(6.08)
	0.026	*0.010*	*0.010*	*0.016*	*0.014*	*0.003*	*0.013*
Religious	0.038*	-0.053**	0.028	0.036*	-0.007	-0.036	0.006
	(1.78)	(-2.40)	(1.33)	(1.66)	(-0.33)	(-1.63)	(0.29)
	0.015	*-0.019*	*0.011*	*0.014*	*-0.003*	*-0.013*	*0.002*
Belong to trade union	-0.126***	-0.009	-0.043	0.012	-0.058**	0.075**	-0.090***
	(-4.48)	(-0.31)	(-1.53)	(0.41)	(-2.08)	(2.54)	(-3.21)
	-0.049	*-0.003*	*-0.017*	*0.004*	*-0.023*	*0.026*	*-0.034*
Belong to professional association	0.218***	-0.002	0.145***	0.188***	0.240***	0.182***	0.141***
	(5.06)	(-0.05)	(3.34)	(4.20)	(5.53)	(3.91)	(3.13)
	0.086	*-0.001*	*0.058*	*0.071*	*0.095*	*0.061*	*0.052*
Unpaid voluntary work for trade union	0.167***	-0.054	0.014	0.099*	0.097*	-0.014	0.085
	(3.03)	(-0.92)	(0.25)	(1.78)	(1.74)	(-0.24)	(1.50)
	0.066	*-0.018*	*0.006*	*0.038*	*0.038*	*-0.005*	*0.031*
Unpaid voluntary work for professional associations	0.005	-0.017	0.125*	0.147**	0.075	0.039	0.086
	(0.07)	(-0.23)	(1.84)	(2.02)	(1.10)	(0.53)	(1.22)
	0.002	*-0.006*	*0.050*	*0.056*	*0.030*	*0.014*	*0.032*
Trust in trade unions	0.059***	0.046***	0.038**	-0.019	-0.016	-0.015	0.008
	(3.87)	(2.91)	(2.52)	(-1.25)	(-1.09)	(-0.95)	(0.52)
	0.023	*0.016*	*0.015*	*-0.007*	*-0.007*	*-0.005*	*0.003*
Trust in education system	0.049***	0.018	0.024	0.026*	0.045***	0.059***	0.033**
	(3.11)	(1.11)	(1.55)	(1.65)	(2.91)	(3.57)	(2.09)
	0.019	*0.006*	*0.010*	*0.010*	*0.018*	*0.021*	*0.013*
Follow politics in the news	0.015	-0.047***	0.026***	0.033***	0.044***	0.046***	0.012
	(1.49)	(-4.46)	(2.59)	(3.20)	(4.32)	(4.32)	(1.21)
	0.006	*-0.016*	*0.010*	*0.013*	*0.017*	*0.016*	*0.005*
Rightist	-0.028***	-0.024***	0.005	0.008	0.003	0.001	-0.006
	(-4.94)	(-3.95)	(0.94)	(1.44)	(0.54)	(0.17)	(-1.04)
	-0.011	*-0.008*	*0.002*	*0.003*	*0.001*	*0.000*	*-0.002*
N	14921	14907	14918	14928	14923	14926	14928
Prob>chi2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Pseudo R2	0.022	0.012	0.011	0.023	0.017	0.017	0.010

Notes: See previous table.

We obtain some interesting insights from the control variables. Women care more about social factors (pleasant people, meeting people) and less about extrinsic or power factors, such as good pay, the chance of promotion, or whether the job is respected by other people. In addition, women care more about good hours than about generous holidays, holding the marital status constant. Bender et al. (2005) find that job satisfaction among females is driven by the flexibility of the job in accommodating family commitments. Consistent with the results from Clark (1997), we find that women are less concerned with certain intrinsic elements of a job, such as having the opportunity to use initiative, feeling that you can achieve something in the job; having a responsible job or a job that meets one's ability. Men rank promotion prospects, pay and job security more highly than do women, but women care more about the relations within the job, the actual work itself and the hours worked. Similarly, Sousa-Poza and Sousa-Poza (2000, p. 529) also find that women value "soft" aspects of a job, whereas men value "hard" aspects such as pay and job security. In general, family-responsive policies are correlated with significantly lower turnover intentions than employees without access to such policies (Masuda et al. 2011).

Age is often negatively correlated with many of the factors explored. Kanfer and Ackerman (2004) point out that among older workers, constraints on learning, pay, and promotion often lessen the value of these factors and recognition in general recognition: "As individuals enter midlife, extrinsic rewards for higher levels of performance and achievement lose their lustre, as interest in affirming one's identity and concerns for protecting the self-concept increase" (p. 453). To some extent, this can be seen in our results. The only factor that is positively correlated with age is the desire to have a job that is useful for society, which may reflect an increased

willingness to help society. Kanfer and Ackerman (2004) point out: “Rewards related to emergent motives for knowledge utilization, helping, collaboration, and enhancing positive affect have yet to be addressed in either theory or practice. If theories of work motivation suggest that older workers are, as a group, less motivated, perhaps the problem lies in limitations of our current theories and organization practices, rather than with the class of individuals” (p. 456). Our results are not in line with Halman’s (1996) predictions. His argument is that the older generations were raised and socialized in more traditional configurations and will opt for traditional values while young people have been exposed to the influence of modernization and individualization, leading to expressive work values (using initiative, responsibility, achieving something, meeting one’s abilities and an interesting job).

Moreover, it is interesting to note that education is strongly correlated with intrinsic and social values rather than extrinsic factors. The highly educated care less about job security and payment as they are more likely to enter jobs with better pay and conditions and may be more flexible regarding job changes and evaluation of different alternatives if they are unhappy (for a discussion see Halman 1996). However, more educated people have power ambitions (e.g., higher importance of promotion). Single/never married people care about social interaction, getting positive feedback such as promotions, generous holidays, and an interesting job. Self-employed people are more risk seeking (lower preferences for job security), care about power and societal factors such as being respected by people, and about doing a job that is useful for society or to achieve something. They like to meet people but they care less whether their work-colleagues are pleasant. They care a lot whether their job meets their own abilities as this consideration may increase likelihood of surviving self-employment. Interestingly, belonging to professional associations is

related to caring more about intrinsic work elements over extrinsic factors such as good pay, job security, or generous holidays.

In general, we require a better understanding with respect to these factors and how they drive work motivation and not just work satisfaction or work centrality. Elements such as affective and intrinsic experiences may be crucial for understanding the development of societies. Modern theories of work motivation tend to emphasize the importance of intrinsic elements (Kenfer and Ackerman 2004). Frey (1997, pp. 88-102) has explored the relationship between intrinsic and extrinsic incentives in the work context. For example, when a work activity is supported by high work morale and external intervention, an unstable psychological situation arises in which actors seek to reduce "over-motivation". The only motivation under the person's control is the intrinsic work motivation, and they decrease this in response to a crowding-out effect. The problem is compounded by the fact that building up work morale is a much slower process than destroying it. An external intervention may only raise intrinsic work motivation when people employees regard this action as acknowledging their (existing) high work morale. A crowding-out effect is particularly problematic in situations where employees have a high work morale, an interesting task, and where there are personal relationships between principal (employer) and agent (employee) that supports intrinsic work motivation, or where agents are able to participate in the decision process of the principal. Frey (1997) points out that a crowding-out effect takes place when external interventions are perceived as controlling. On the other hand, when the intervention is understood by the workers as supportive, intrinsic motivation to work is unaffected or can even improve (p. 93).

As the primary material reward for work, the results on income are especially interesting. It seems that people with higher income care more about the ability to use initiative, having an interesting job or achieving something and less about job security, good hours, generous holidays, and meeting people.

Table 11: Income and Work Values

Dependent Variables from prior Specifications	Income	z-stat	Marg. Eff.	N	Prob>chi2	Pseudo R2
Good pay	**0.001**	(0.11)	*0.000*	12852	0.000	0.049
Pleasant people	**-0.004**	(-0.77)	*-0.001*	12847	0.000	0.017
Limited pressure	**-0.045*** **	(-8.47)	*-0.017*	12833	0.000	0.031
Job security	**-0.036*** **	(-6.81)	*-0.013*	12852	0.000	0.043
Chance promotion	**0.006**	(1.14)	*0.002*	12834	0.000	0.033
Respected by people	**-0.017*** **	(-3.31)	*-0.007*	12840	0.000	0.023
Good hours	**-0.035*** **	(-6.86)	*-0.014*	12840	0.000	0.023
Use initiative	**0.021*** **	(4.07)	*0.008*	12844	0.000	0.033
Useful for society	**-0.025*** **	(-4.85)	*-0.010*	12843	0.000	0.024
Generous holidays	**-0.015*** **	(-2.77)	*-0.005*	12832	0.000	0.011
Meeting people	**-0.022*** **	(-4.39)	*-0.009*	12841	0.000	0.013
Achieve something	**0.010***	(1.85)	*0.004*	12849	0.000	0.025
Responsible job	**0.003**	(0.64)	*0.001*	12845	0.000	0.019
Interesting job	**0.012****	(2.28)	*0.004*	12848	0.000	0.016
Meets own abilities	**0.003**	(0.65)	*0.001*	12848	0.000	0.011

Notes: The symbols *, **, *** represent statistical significance at the 10%, 5%, and 1% levels, respectively.

Despite being a cross-sectional analysis, and advantage of the EVS is its ability to cover a large set of work values. The key disadvantage (as discussed beforehand) is clearly the fact that these are not large scale country surveys. Green and Tsitsianis (2005) "call for larger samples that would permit more detailed analyses within particular sectors or occupations. Moreover, future work in this mould can only be supported if large-scale survey designers are willing and able to devote sufficient

interview time to proper instruments for measuring those intrinsic work characteristics, which are known from many micro studies to have a major influence on job satisfaction" (p. 423).

V. HETEROGENEITY AMONG COUNTRIES: A CLUSTER ANALYSIS

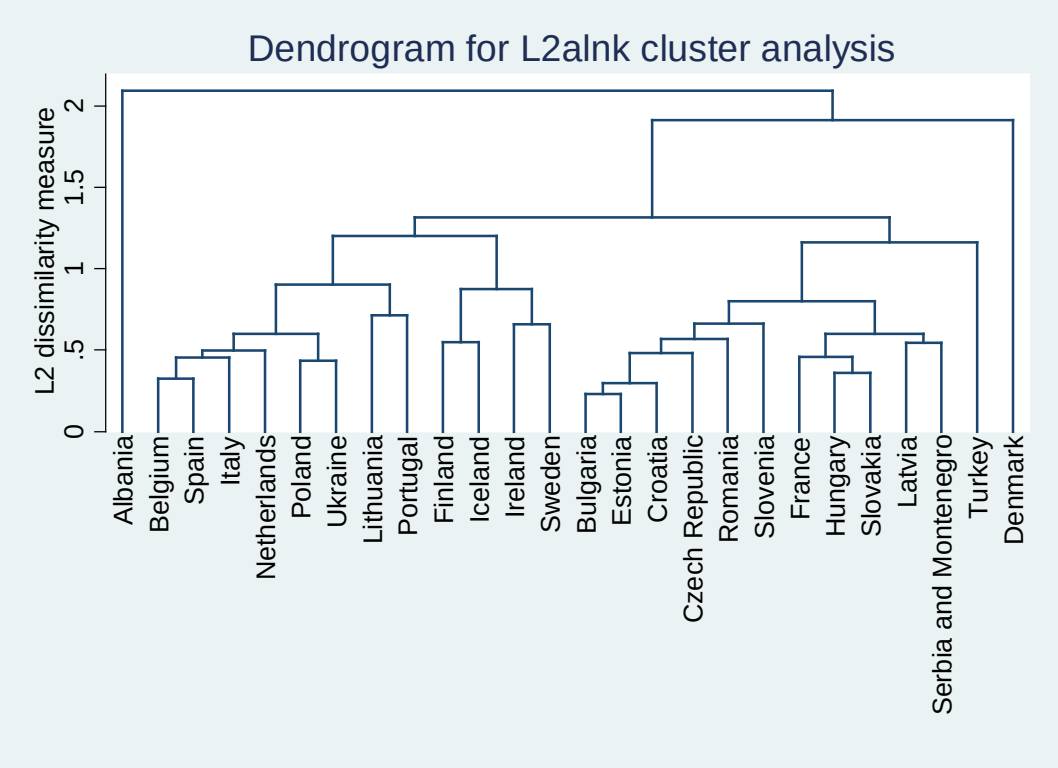
So far we have classified countries into Eastern and Western Europe which has allowed us to observe significant regional differences. However, a finer classification of different countries could be interesting due to their different work values. We therefore conduct a cluster analysis to determine the natural grouping of observations at the country level. It is important to keep in mind the problems associated with doing cross-country comparisons (Kristensen and Johansson 2008), however, the advantage of a cluster analysis is to show relationships rather than providing rankings. To visualize the finding of groups we will work with the hierarchical clustering method. More precisely, we will use an average linkage hierarchical agglomerative cluster analysis provided by the statistical software Stata. It has intermediate properties of single and complete linkage clustering. It is based on "average (dis)similarity of observations between the groups as the measure between the two groups" (STATA Handbook on Cluster Analysis p. 13).

Figure 12 presents a dendrogram focusing on mostly previously used proxies for centrality. Since we are using WVS aggregated values over four time periods, we can add another work value factor that is available in the WVS, but not in the EVS.[11]

[11] "Importance of work in your life" (% stating "very important"), "work as a duty towards society (% agree strongly) and work should come first even it means less spare time (% agree strongly)[11], "mentioning that hard work is an important child quality", and a new one, namely "in the long run, hard work usually brings a better life" (scale for 1 to 10, 1=better life, 10= hard work doesn't bring success – it's more a matter of luck and connections).

We have also added job satisfaction.[12] The first striking observation is that there are two large clusters of nations. In the first group we find more Western European countries compared to the second one. Northern European and Scandinavian countries such as Sweden, Finland, Iceland, Ireland, and Lithuania form this first group. The second covers more Southern, Western or Central European countries such as Spain, Italy, Portugal, Poland, Ukraine, Netherlands, and Belgium. Interestingly, France appears on the left-hand side with more of the Eastern European countries. In addition, countries such as Denmark, Albania and Turkey can be seen as quite different from the two main groupings.

Figure 12: Cluster Analysis on Work Values



We next investigate the considerations evaluated as the most important factor when looking for a job. The question was framed the following way:

[12] Overall, how satisfied or dissatisfied are you with your job? (1=Dissatisfied; 10=Satisfied).

Now I would like to ask you something about the things which would seem to you, personally, most important if you were looking for a job. Here are some of the things many people take into account in relation to their work. Regardless of whether you're actually looking for a job, which one would you, personally, place first if you were looking for a job?

A good income

A safe job with no risk

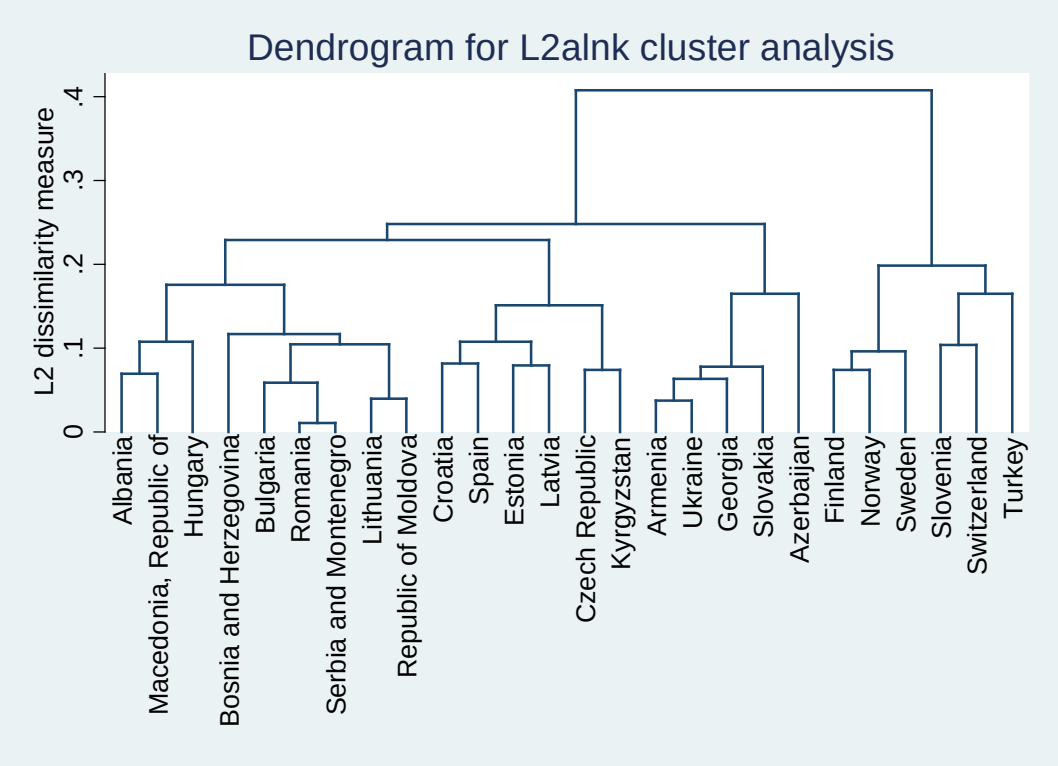
Working with people you like

Doing an important job

Do something for community

Figure 13 presents the results. We observe two groups, one large and one smaller that includes Scandinavian countries such as Finland, Sweden, Norway in sub-group and Slovenia, Switzerland and Turkey in another sub-group. The larger group is divided into one group covering many Former Soviet Union countries such as Armenia, Ukraine, Georgia, Azerbaijan. Another group includes Baltic countries such as Estonia and Latvia together with countries such as Croatia, Czech Republic, Spain and also (surprisingly) Kyrgyzstan. Ex-Yugoslavian countries such as Bosnia and Herzegovina, Serbia and Montenegro, Macedonia are quite similar and are grouped together with other Eastern European countries such as Hungary, Bulgaria, Albania, Romania, or Moldova.

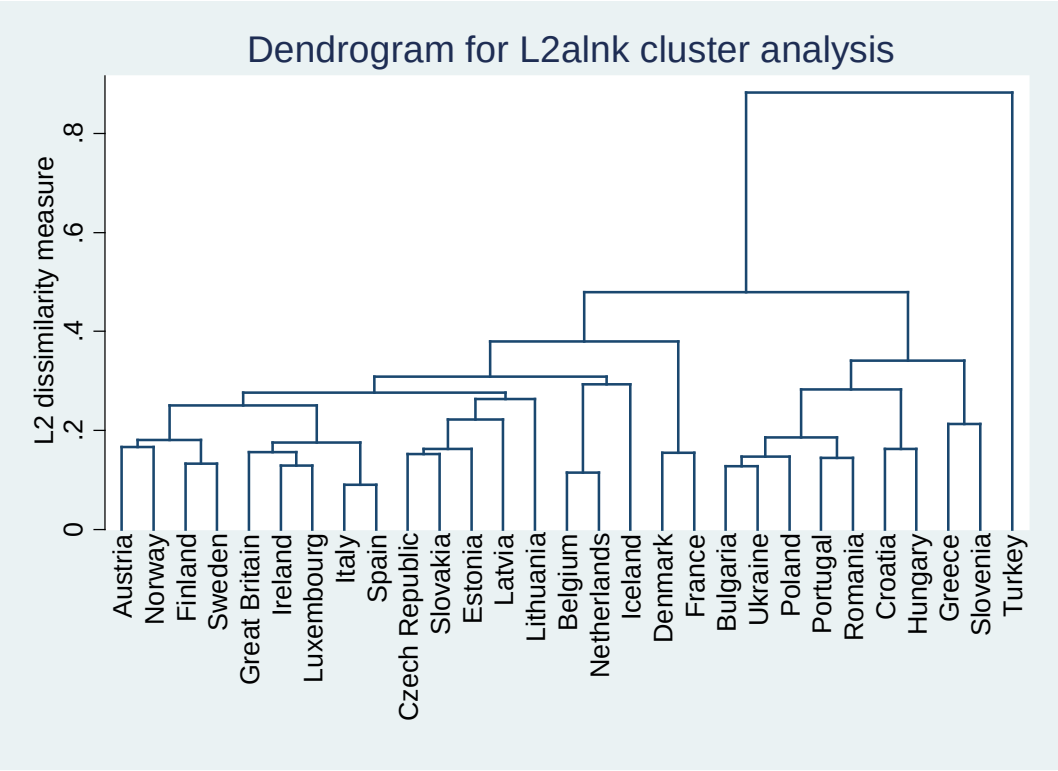
Figure 13: *Cluster Analysis on Job Important Job Characteristics*



We now investigate particular work values based on Schwartz's (1999) classification developed in *Table 8*. In the earlier multivariate regression analyses, we only differentiated between Eastern and Western Europe, although there are other theories regarding the differences between regions. For example, Halman (1996) divides Western Europe in three groups of countries based on the prevalent religion in a country: Catholic (Italy, Spain, Portugal, and Ireland), Protestant countries (Iceland, Norway, Sweden, Denmark) and mixed countries (Great Britain, Netherlands, Belgium, Germany and France). He argues that individualized work values are most prevalent in the Nordic countries of Europe, followed by countries in the north-western part of Europe, and the southern countries. However, as mentioned, we are not exploring rankings of regions in a cluster analysis; we are checking for regional similarities.

First, we take a look at the extrinsic factors (see *Figure 14*). Our cluster analysis reports a large number of groups. Scandinavian countries such as Sweden, Finland and Norway are quite similar, and Austria also fits into this group. Italy and Spain are very similar, as are Great Britain and Ireland. This group is joined by Luxembourg. Netherlands and Belgium are very similar as are Czech Republic and Slovakia. Close to Czech Republic we find the Baltic countries Estonia, Latvia and Lithuania. Bulgaria, Poland and Ukraine are also relatively similar. Interestingly, there are also similarities between Portugal and Romania. Croatia is close to Hungary while Greece is closer to Slovenia. Turkey is clearly an outlier. All of these results indicate the general tendency towards similarities among neighbours or countries. Looking at the two to three major groups of clusters we recognize the differences between Eastern and Western Europe reflected in the multivariate analysis.

Figure 14: Extrinsic Elements as Dimension of Work



We now analyze intrinsic motivation (see *Figure 15*). Norway and Sweden are very similar to each other. Finland is in the same group as Great Britain and Ireland. Croatia is close to Moldova, Bosnia and Herzegovina and Armenia. Interestingly, Greece and Poland are also quite similar. On this measure, Portugal is close to Albania. There is also a group covering Austria, Italy, Denmark, Luxembourg. Lithuania and Estonia are very close to each other as are Spain, France and Belgium. Georgia and Latvia are also close. Here, the difference between Eastern Europe and Western Europe is less clear when looking at larger clusters. Turkey is again an outlier, this time also followed by Slovenia.

Figure 15: Intrinsic Elements as Dimension of Work

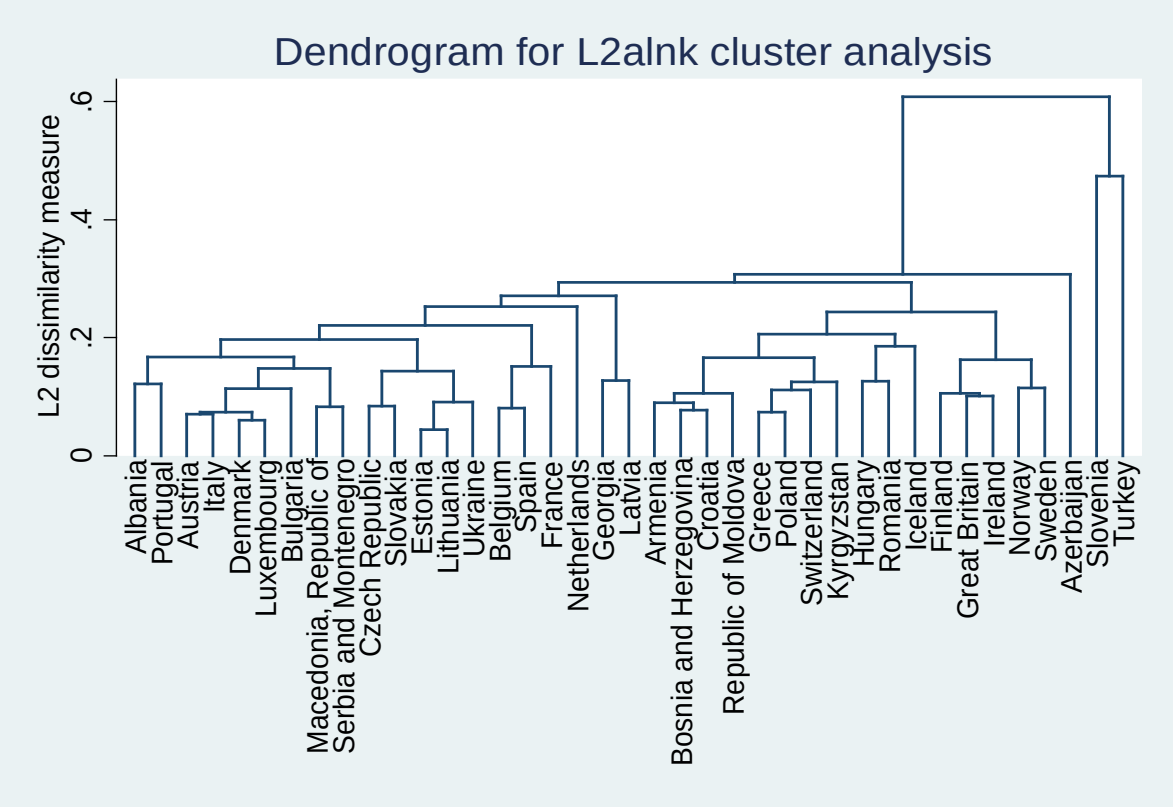
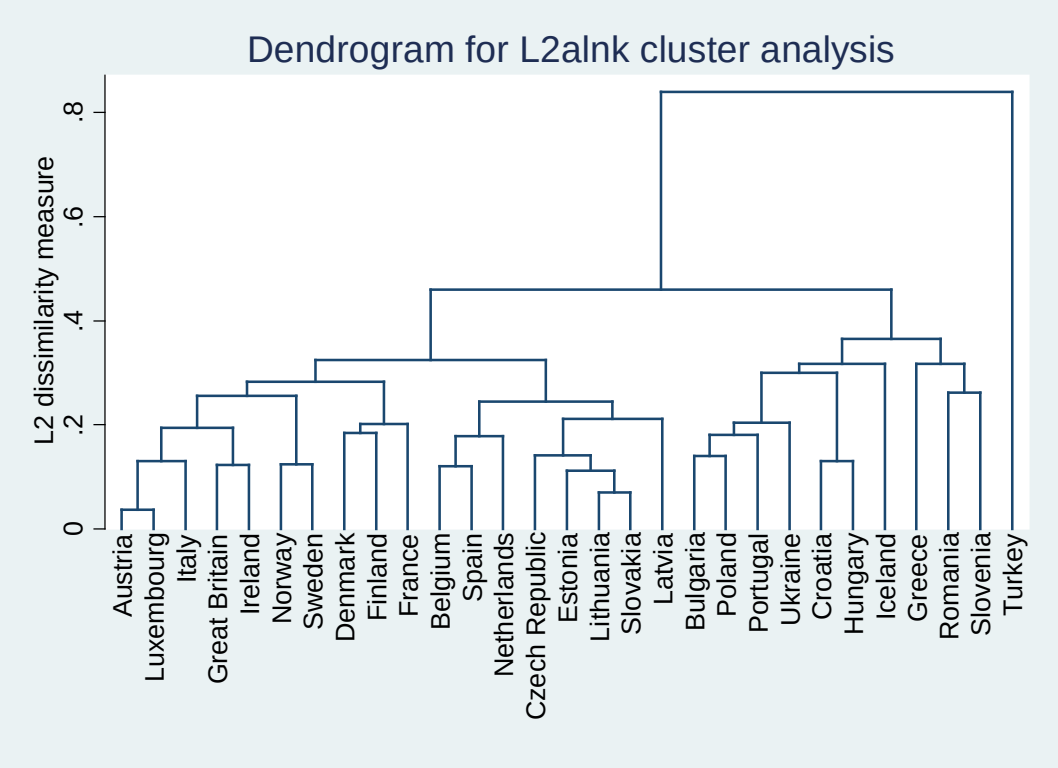


Figure 16 depicts *Power* as a dimension of work. The difference between Eastern and Western Europe is neatly visible. Some countries are very similar, e.g., Great Britain

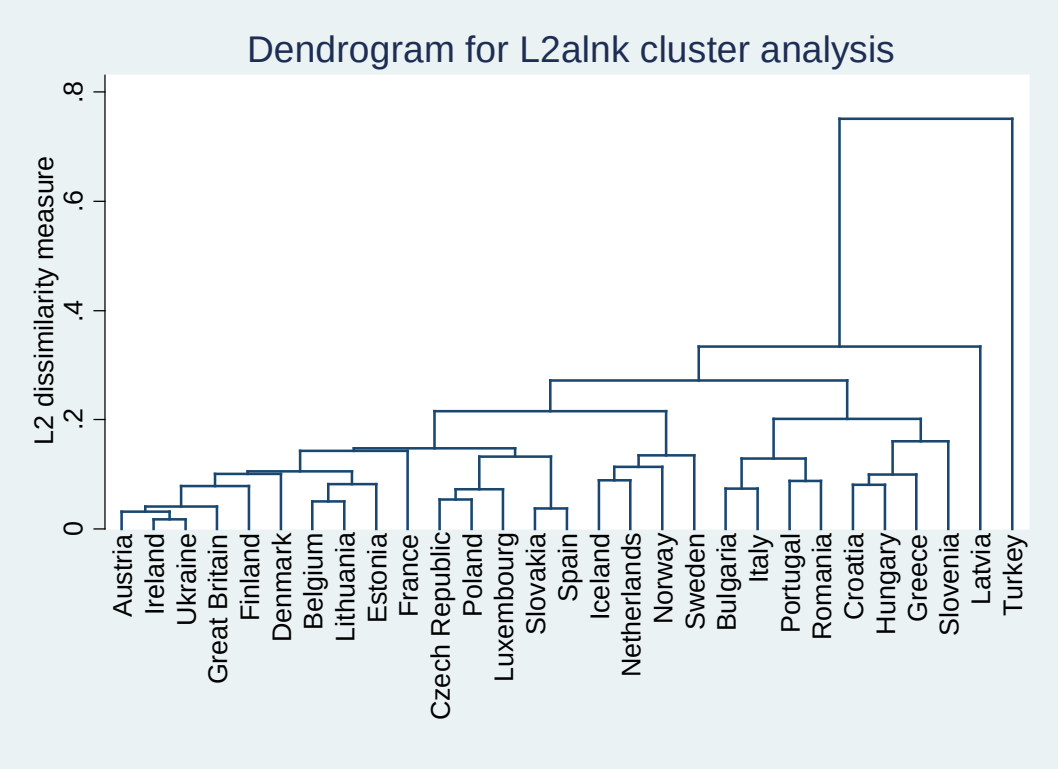
and Ireland, Norway and Sweden, Belgium and Spain, Lithuania and Slovakia followed by Lithuania, Bulgaria and Poland, Croatia and Hungary. Turkey is again an outlier.

Figure 16: Power as a Dimension of Work



Finally, we present the social element of work in *Figure 17*. There is a large set of countries that are very close and the differentiation between Eastern and Western Europe is less clear. Another group consists of Sweden, Norway, Iceland, and the Netherlands. A further group is made up of Czech Republic, Poland, Luxembourg, Slovakia and Spain. The largest group with a certain level of dissimilarity with the countries consists of Austria, Ireland, Ukraine, Great Britain, Finland, Denmark, Belgium, Lithuania, Estonia, and France. This kind of heterogeneity in this large group somehow surprises.

Figure 17: Power as a Dimension of Work



Overall, the trend observed in the multivariate analysis between Eastern and Western Europe is reflected in the cluster analysis. However, looking at factors classified under *Power*, *Intrinsic*, *Extrinsic*, and *Social* elements, we observe some heterogeneity. The difference between Eastern and Western Europe is more obvious for the power and extrinsic elements and less apparent for social and intrinsic factors. We also observe some small clusters, of which the Scandinavian countries are one of the strongest.

VI. SUMMARY AND CONCLUSIONS

Humans spend so much time in their life at ‘work’ that it is crucial for social sciences to understand work values. The core (empirical) analysis investigates work centrality and work values. job satisfaction, covering a large number of job elements. We also discuss the literature on job satisfaction and we us scatterplots to show the correlation of job satisfaction and happiness and GDP per capita. Understanding job satisfaction can help to increase productivity and firm success, to understand the labour market and other aspects of work behavior such as shirking or absenteeism. It may even help to understand macro-economic business cycles. Researchers from psychology, management and organizational sciences have been working on this topic for quite a while, long before economists started to work on job satisfaction,. A paper by Wright (2006) reports that more than 10,000 studies have been published on job satisfaction. There have been many mixed results, even for core factors such gender and age. Methodological improvements have developed over time, through the use of panel data and better techniques for dealing with causal relationships. However, while the literature on job satisfaction is extensive, the empirical investigation on (other) work values has remained scarce in relative terms. Other work values such as intrinsic and extrinsic job factors or job centrality have primarily been explored as factors that influence job satisfaction rather than as the focus of intensive treatment as endogenous or dependent factors.

We have discussed key puzzles of interest to economists, such as the development of different working hours between Europe and the US. It seems that preferences and institutional conditions have shaped such differences. There is a negative relationship between general well-being and working hours, and job

satisfaction and working hours. Job satisfaction on the other hand is correlated with the level of GDP and well-being.

A key focus of this study is the difference between Eastern and Western Europe. In previous research, Eastern Europe has not been explored in detail, and there is a general lack of studies that analyze a large set of countries together. Most existing studies are single-country investigations. Clearly, cross-country studies are problematic and we discuss the shortcomings.

Moreover, research on job satisfaction has attracted criticism for its atheoretical nature. Therefore, we have worked with a theoretical framework on values developed by Schwartz (1999), applying to the work environment it in line with Schwartz (1999) by focusing empirically on elements provided by the EVS.

Our results indicate that work centrality is substantially more dominant in Eastern Europe. Age is also positively related with work centrality which might be important as a large share of people in the workforce are forty-five years or older (increasing trend). On the other hand, work is less central for women compared with men. Part-time workers (working less than 30 hours per week) are substantially less likely to care about work compared to full-time employees. We report a negative relationship between education and work centrality, yet trust in education is positively related with work centrality. Work is more central to the lives of the self-employed than it is to full-time employees. Interestingly, we observe a clear tendency in positive correlations between religiosity and work centrality. Even in today's society, there is an observable impact of being Protestant (controlling for religiosity and church attendance) on the extreme work centrality ("work should always come first, even if it means less spare time"). Moreover, ideology is relevant: people who identify as

'rightist' are more likely to rank work highly. On the other hand, there is a negative correlation between income and work centrality.

Interestingly, there is a clear trade-off between work and leisure in Western Europe, but not in Eastern Europe. This could be explained in a Maslovian framework in which an increase of living standards and economic security allows for such a trade-off, while people in Eastern Europe need to work harder to achieve their leisure preferences. There is a strong correlation between family and work centrality in Eastern Europe, while the effect is less strong for Western Europe. It might be that work is more of a necessity rather than pleasure in Eastern Europe. A strong negative correlation is reported between work centrality and the belief that hard work is an important quality which children can be encouraged to learn at home. For Western Europe (EU-15 countries) there is hardly any relationship between both variables.

Seeking a better understanding of the differences between work values, we looked closely at various domains. We observed clearly that people from Eastern Europe are more driven by extrinsic rather intrinsic motivation, by power and less by social aspects. They care more about good pay, job security and the chance of promotion than they do about the opportunity to use initiative, a job in which it feels possible to achieve something or a responsible job. They also care less about meeting people and working with pleasant people. On the other hand, they care more about having a job that is respected by other people and is useful for society. They also care more about generous holidays, not too much pressure, and good hours (although the last factor does not report a statistically significant difference). These results support previous findings obtained and the classification developed by Schwartz (1999). Good pay and job security are among the factors with the strongest regional differences based on the marginal/quantitative effects. Moreover, it is interesting to note that

education is strongly correlated with intrinsic and social values rather than extrinsic factors. However, highly educated people have also ambitions for power (e.g., higher importance of promotion). Women care more about social factors (pleasant people, meeting people) and less about extrinsic or power factors, such as good pay, the chance of promotion, or whether it is a job respected by people. On the other hand, they care more about good hours than about generous holidays, holding the marital status constant. People with higher income care more about the ability to use their initiative, having an interesting job or achieving something and less about job security, good hours, generous holidays, and meeting people.

We explored whether there are general differences between Eastern and Western Europe when controlling for a large set of factors. Future research could go further and check whether the independent factors influence these two regions in a different manner. Moreover, it may have been interesting to better explore differences between Central Eastern European countries and the Former Soviet Union countries, since communism may have had a less pervasive effect on the structure of life in Central European countries (Schwartz and Bardi 1997, p. 388).

Using the explorative approach afforded by an average linkage hierarchical agglomerative cluster analysis, we investigated the similarities among countries. The results reflect that there are differences between Eastern and Western Europe, as observed in the multivariate analysis. However, looking at factors classified under Power, Intrinsic, Extrinsic, and Social elements we find some heterogeneity. The difference between Eastern and Western Europe is more visible for the elements scored on power and extrinsic work values and less visible for social and intrinsic factors. We also observe some small clusters, with the Scandinavian countries as one of the strongest small clusters.

In general, it is important to better understand how institutions and institutional changes shape work values (when referring to institutions we mean country conditions and not just work conditions). General work values such as work centrality rather than job satisfaction might be less affected by job and work conditions. This raises the question regarding the extent to which work values are stable. Previous research has investigated the link between genetics and job satisfaction and work values. Arvey et al. (1993) observe that genetic factors account for 27% of the variance of overall job satisfaction. They refer to other studies that report a heritability of around 30% and a particular study that finds around 40% of the variance of wok value scales are related to genetic factors. Arvey et al. (1993) also find a significant genetic association with intrinsic satisfaction, but not with extrinsic satisfaction. However, they state in their discussion: "We wish to note again that simply because a variable demonstrates a significant heritability does not imply that such a characteristic is unmalleable or unchangeable" (p. 31). Previous research on moral values such as tax morale indicates that characteristics are strongly shaped by institutional and political conditions (see, e.g., Torgler 2007). However, the work environment is less affected by the social contract between citizens and the government, even though institutional conditions can change the long-term possibilities and constraints for workers. Dynamics of institutional and political changes can best be analysed with panel data following the same individuals over time. This would also provide the opportunity to explore how changes in the work environment and changes in life circumstances (life shocks such as deaths within the family, divorces etc.) influence work values (recovery periods). Such environmental dynamics allow observation of the extent to which work values change, and the conditions under which they change. Frey (1997) stresses that the "process of building

up work morale is as a rule much slower than destroying it, and is less reliable" (p. 91). More empirical evidence in this area is required. The quasi-natural experiments in history can provide valuable insights; for example, German unification or changes over time in the Czech and Slovak Republics due to the separation in 1992. According to Diamond and Robinson (2010, pp. 1-2) this is a "technique that frequently proves fruitful…This approach consists of comparing – preferably quantitatively and aided by statistical analyses – different systems that are similar in many respects but that differ with respect to the factors whose influence one wishes to study… Of course, natural experiments involve many obvious pitfalls. These pitfalls include the risk that the outcome might depend on other factors that the "experimenter" had not thought to measure; and the risk that the true explanatory factors might be ones merely correlated with the measured factors, rather than being the measured factors themselves". Frese et al. (1996) find substantial differences regarding the percentage of people with very high initiative (13% in the East compared to 35% in the West). They conclude that differences were driven by occupational socialization as employees in East Germany had little control at work and low complexity in their job. As Smola and Sutton (2002, p. 381) point out: "We know that time does not stand still. Apparently, our work values also change with the times, some more significantly than others.'' Our comparative analysis between Eastern and Western European countries can also be seen in a broad and long-term sense as a quasi-natural experiment despite substantial differences: "Both parts of Europe share the experiences of feudalism, medieval Christianity, the Renaissance, the Reformation and Counter-Reformation, and the Enlightenment periods…" (Schwartz and Bardi 1997).

REFERENCES

Alesina, A. F., Glaeser, E. L., & Sacerdote, B. (2005). Work and Leisure in the United States and Europe: Why So Different? *NBER Macroecnomic Annual 2005, 20,* 1-64.

Angrist, J. D. and Pischke, J.-S. (2009). *Mostly Harmless Econometrics*, Princeton: Princeton University Press.

Arvey, R. D., McCall, B. P., Bouchard, T. J., Taubman, P., & Cavanaugh, M. A. (1994). Genetic Influences on Job Satisfaction and Work Values. *Personality and Individual Differences*, *17*(1), 21-33.

Bamundo, P. J., & Kopelman, R. E. (1980). The Moderating Effects of Occupation, Age, and Urbanization on the Relationship Between Job Satisfaction and Life Satisfaction. *Journal of Vocational Behavior*, *17*(1), 106–123.

Bender, K. A., Donohue, Susan M., & Heywood, John S. (2005). Job Satisfaction and Gender Segregation. *Oxford Economic Papers*, *57*(3), 479 -496.

Bielby, D. D. (1992). Commitment to Work and Family. *Annual Review of Sociology*, *18*, 281–302.

Birdi, K., Warr, Peter, & Oswald, A. (1995). Age Differences in Three Components of Employee Well-being. *Applied Psychology*, *44*(4), 345-373.

Blanchard, O. (2004). The Economic Future of Europe. *Journal of Economic Perspectives*, *18*(4), 3-26.

Blanchflower, D. G., & Oswald, A. J. (1999). Well-Being, Insecurity and the Decline of American job Satisfaction. *NBER Working Paper*.

Bonatti, L. (2008). Evolution of Preferences and Cross-Country Differences in Time Devoted to Market Work. *Labour Economics*, *15*(6), 1341–1365.

Borooah, V. K. (2009). Comparing Levels of Job Satisfaction in the Countries of Western and Eastern Europe. *International Journal of Manpower*, *30*(4), 304-325.

Brown, D., & McIntosh, S. (2003). Job Satisfaction in the Low Wage Service Sector. *Applied Economics*, *35*(10), 1241–1254.

Bryson, A., Cappellari, L., & Lucifora, C. (2004). Does Union Membership Really Reduce Job Satisfaction? *British Journal of Industrial Relations*, *42*(3), 439–459.

Chen, G., Goddard, T. G., & Casper, W. J. (2004). Examination of the Relationships among General and Work-Specific Self-Evaluations, Work-Related Control Beliefs, and Job Attitudes. *Applied Psychology*, *53*(3), 349–370.

Clark, Andrew E. (1996). Job Satisfaction in Britain. *British Journal of Industrial Relations*, *34*(2), 189-217.

Clark, A. E. (1997). Job Satisfaction and Gender: why are Women so Happy at Work? *Labour economics*, *4*(4), 341–372.

Clark, A. E, & Oswald, A. J. (1996). Satisfaction and Comparison Income. *Journal of Public Economics*, *61*(3), 359–381.

Clark, A. E., Georgellis, Y., & Stanfey, P. (1998). Job Satisfaction, Wages, and Quits: Evidence from German Panel Data. *Research in Labor Economics, 17*, 88-101.

Clark, A. E., Frijters, P, & Shields, M. A. (2008). Relative Income, Happiness, and Utility: An Explanation for the Easterlin Paradox and Other Puzzles. *Journal of Economic Literature, 46*(1), 95–144.

Cohen, A., & Vigoda, E. (1998). The Growth Value of Good Citizenship: An Examination of the Relationship between Civic Behaviour and Involvement in the Job. *Applied psychology*, *47*(4), 559–570.

Davoine, L., & Méda, D. (2009). Work More to Earn More? The Mixed Feelings of Europeans. *International Labour Review*, *148*(1-2), 15–46.

Diamond, J., & Robinson, J. A. (Eds.) (2010). *Natural Experiments of History*. Cambridge, Massachusetts: Harvard University Press.

Dong B. & Torgler, B. (2009). Corruption and Political Interest: Empirical Evidence at the Micro Level. *Journal of Interdisciplinary Economics*, 21, 295-325.

Donohue, S. M, & Heywood, J. S. (2004). Job Satisfaction and Gender: An Expanded Specification from the NLSY. *International Journal of Manpower*, *25*(2), 211–238.

Drago, R., & Wooden, M. (1992). The Determinants of Labor Absence: Economic Factors and Workgroup Norms Across Countries. *Industrial and Labor Relations Review, 45* (4), 135-141.

Frey, B. S. (1997). *Not Just for the Money*. An Economic Theory of Personal Motivation. Cheltenham, UK: Edward Elgar.

Frey, B. S. (2008). *Happiness: A Revolution in Economics*, Cambridge, MA: MIT Press.

Freeman, R. B. (1978). Job Satisfaction as an Economic Variable. *American Economic Review, 68* (2), 135-141.

Frese, M., Kring, W., Soose, A., & Zempel, J. (1996). Personal Initiative at Work: Differences Between East and West Germany. *Academy of Management Journal*, *39*(1), 37-63.

Ganzach, Y. (1998). Intelligence and Job Satisfaction. *Academy of Management Journal*, *41*(5), 526–539.

Gordon, M. E., & Denisi, A. S. (1995). A re-examination of the relationship between union membership and job satisfaction. *Industrial and Labor Relations Review, 48*(2), 222-236.

Green, F., & Tsitsianis, N. (2005). An Investigation of National Trends in Job Satisfaction in Britain and Germany. *British Journal of Industrial Relations*, *43*(3), 401–429.

Greenhaus, J. H., & Beutell, N. J. (1985). Sources of Conflict between Work and Family Roles. *Academy of Management Review*, *10*(1), 76–88.

Halman, L. (1996). *Individualization and the fragmentation of work values: evidence from the European values study*. WORC PAPER 96.07.013,Tilburg University, Work and Organization Research Centre.

Hamermesh, D. S. (2001). The Changing Distribution of Job Satisfaction. *Journal of Human Resources*, *36*(1), 1-30.

Hansen, G. L. (1991). Balancing Work and Family: A Literature and Resource Review. *Family Relations*, *40*(3), 348–353.

Hattrup, K., Mueller, K., & Joens, I. (2007). The Effects of Nations and Organisations on Work Value Importance: A Cross-Cultural Investigation. *Applied Psychology*, *56*(3), 479–499.

Hill, R. B. (1996). *Historical context of the work ethic*. University of Georgia at Athens.

Hirschfeld, R. R., & Feild, H. S. (2000). Work Centrality and Work Alienation: Distinct Aspects of a General Commitment to Work. *Journal of Organizational Behavior*, *21*(7), 789–800.

Hitlin, S., & Piliavin, J. A. (2004). Values: Reviving a Dormant Concept. *Annual Review of Sociology*, *30*, 359–393.

Hochschild, A. R. (1997). *The Time Bind: When Work Becomes Home and Home Becomes Work*, New York: Metropolitan Books.

Inglehart, R. (1990). *Cultural Shift in Advanced Industrial Society*, Princeton: Princeton University Press.

Jürges, H. (2003). Age, Cohort, and the Slump in Job Satisfaction among West German Workers. *Labour*, *17*(4), 489–518.

Judge, T. A., & Locke, E. A. (1993). Effect of Dysfunctional Thought Processes on Subjective Well-Being and Job Satisfaction. *Journal of Applied Psychology, 78*(3), 475-490.

Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The Job satisfaction-Job Performance Relationship: A Qualitative and Quantitative Review. *Psychological Bulletin, 127*(3), 376-407.

Kanfer, R., & Ackerman, P. L. (2004). Aging, Adult Development, and Work Motivation. *The Academy of Management Review*, *29*(3), 440–458.

Kristensen, N., & Johansson, E. (2008). New Evidence on Cross-Country Differences in Job Satisfaction Using Anchoring Vignettes. *Labour Economics*, *15*(1), 96–117.

Lane, R. E (1998). The joyless market economy. In A. Ben-Ner & L. Putterman (Eds.), *Economics, values, and organization* (pp. 461-488). Cambridge: Cambridge University Press.

Linz, S. J. (2003). Job Satisfaction among Russian Workers. *International Journal of Manpower*, *24*(6), 626-652.

Lipset, S. M. (1992). The Work Ethic, Then and Now. *Journal of Labor Research*, *13*(1), 45–54.

Long, A. (2005). Happily Ever After? A Study of Job Satisfaction in Australia. *Economic Record*, *81*(255), 303–321.

Masuda, A. D., Poelmans, S. A. Y., Allen, T. D., Spector, P. E., Lapierre, L. M., Cooper, C. L., Abarca, N., et al. (2011). Flexible Work Arrangements Availability and their Relationship with Work-to-Family Conflict, Job Satisfaction, and Turnover Intentions: A Comparison of Three Country Clusters. *Applied Psychology*, forthcoming.

Meyer, K. E., & Peng, M. W. (2005). Probing Theoretically into Central and Eastern Europe: Transactions, Resources, and Institutions. *Journal of International Business Studies*, *36*(6), 600–621.

Oshagbemi, T. (2003). Personal Correlates of Job Satisfaction: Empirical Evidence from UK Universities. *International Journal of Social Economics*, *30*(12), 1210–1232.

Petty, M. M., McGee, G. W., & Cavender, J. W. (1984). A Meta-Analysis of the Relationships between Individual Job Satisfaction and Individual Performance. *The Academy of Management Review*, *9*(4), 712–721.

Poelmans, S., & Sahibzada, K. (2004). A Multi-Level Model for Studying the Context and Impact of Work-Family Policies and Culture in Organizations. *Human resource management review*, *14*(4), 409–431.

Prescott, E. C. (2004). "Why Do Americans Work So Much More Than Europeans?," *FRB Minneaplis - Quarterly Review*, 28(1), 2-14.

Probst, T. M., & Lawler, J. (2006). Cultural Values as Moderators of Employee Reactions to Job Insecurity: The Role of Individualism and Collectivism. *Applied Psychology*, *55*(2), 234-254.

Renaud, S. (2002). Rethinking the Union Membership/Job Satisfaction Relationship: Some Empirical Evidence in Canada. *International Journal of Manpower*, *23*(2), 137-150.

Rodríguez-Pose, A., & Vilalta-Bufí, M. (2005). Education, Migration, and Job Satisfaction: the Regional Returns of Human Capital in the EU. *Journal of Economic Geography*, *5*(5), 545 566.

Roe, R. A., & Ester, P. (1999). Values and Work: Empirical Findings and Theoretical Perspective. *Applied Psychology*, *48*(1), 1–21.

Rose, M. (2005). Job Satisfaction in Britain: Coping with Complexity. *British Journal of Industrial Relations*, *43*(3), 455–467.

Roskies, E., Louis-Guerin, C., & Fournier, C. (1993). Coping with Job Insecurity: How Does Personality Make a Difference? *Journal of organizational behavior*, *14*(7), 617–630.

Schaltegger, C., & Torgler, B. (2010). Work Ethic, Protestantism, and Human Capital, *Economics Letters*, *107*(2), 99-101.

Schwartz, S. H. (1999). A Theory of Cultural Values and Some Implications for Work. *Applied Psychology*, *48*(1), 23–47.

Schwartz, S. H., & Bardi, A. (1997). Influences of Adaptation to Communist Rule on Value Priorities in Eastern Europe. *Political Psychology*, *18*(2), 385–410.

Shields, M. A., & Price, S. W. (2002). Racial Harassment, Job Satisfaction and Intentions to Quit: Evidence from the British Nursing Profession. *Economica*, *69*(274), 295-326.

Smola, K. W., & Sutton, C. D. (2002). Generational Differences: Revisiting Generational Work Values for the New Millennium. *Journal of Organizational Behavior*, 23(4), 363-382.

Sousa-Poza, A., & Sousa-Poza, A. A. (2000). Well-Being at Work: A Cross-National Analysis of the Levels and Determinants of Job Satisfaction. *Journal of Socio-Economics*, *29*(6), 517–538.

Sousa-Poza, A., & Sousa-Poza, A. A. (2003). Gender Differences in Job Satisfaction in Great Britain, 1991–2000: Permanent or Transitory? *Applied Economics Letters*, *10*(11), 691–694.

Tambling, J. (2004). Dreaming the Siren: Dante and Melancholy. *Forum for Modern Language Studies 40*(1), 56-69.

Taris, R., & Feij, J. (2001). Longitudinal Examination of the Relationship between Supplies–Values Fit and Work Outcomes. *Applied Psychology*, *50*(1), 52–80.

Torgler, B. (2003). Tax Morale in Transition Countries. *Post-Communist Economies*, 15(3), 357-381

Torgler, B. (2006). The Importance of Faith: Tax Morale and Religiosity. *Journal of Economic Behavior and Organization*, *61*(1), 81-109.

Torgler, B. (2007). *Tax Compliance and Tax Morale: A Theoretical and Empirical Analysis*, Cheltenham, UK: Edward Elgar.

Torgler, B., Garcia-Valiñas, M. A., & Macintyre, A. (2011). Participation in Environmental Organizations: An Empirical Analysis. *Environment and Development Economics*, *16*(5), 591-620.

van Beek, Hu Q., Schaufeli B., Taris, T. W., & Schreurs, B. H. J. (2011). For Fun, Love, or Money: What Drives Workaholic, Engaged, and Burned-Out Employees at Work? *Applied Psychology,* forthcoming.

Vila, L. E., & García-Mora, B. (2005). Education and the Determinants of Job Satisfaction. *Education Economics*, *13*(4), 409–425.

Wright, T. A. (2006). The Emergence of Job Satisfaction in Organizational Behavior: A Historical Overview of the Dawn of Job Attitude Research. *Journal of Management History*, *12*(3), 262–277.