

The changing influence of culture on job satisfaction across Europe: 1981-2008

This is an update of a previous version available at:
http://www.aut.ac.nz/data/assets/pdf_file/0010/299656/Eco-WP-2012-06.pdf

Abstract

This paper contributes to the growing multi-disciplinary body of literature on subjective wellbeing by investigating the temporal stability and impacts of cultural values on job satisfaction over time. It is generally believed that cultural values evolve fairly slowly, leading to the expectation that the impacts of these values on job satisfaction are likely to be fairly stable over an individual's working life. This paper uses four waves of the European Values Study and investigates whether cultural values have evolved and whether their impacts on job satisfaction have changed across Europe over the period 1981-2008. We parameterise cultural values through reference to traditional vs. secular and survival vs. self-expression value continuums. Results indicate that the strength of many cultural values have declined, the impacts of traditional values on job satisfaction have remained fairly constant, and the impacts of survival values on job satisfaction have declined substantially over the sample period.

Keywords: Culture, Job satisfaction

1 Introduction

Determining what factors influence workers' job satisfaction has become a growing point of interest for organisations. Such interest is driven by the potential for organisations to reap additional returns from employees due to higher levels of work-related satisfaction, by capitalising on employee outcomes such as organisational commitment and motivation, and mitigating effects of withdrawal behaviours such as absenteeism and intention to quit. Although the current body of research is of undoubted value, the effects on job satisfaction of external phenomena, such as globalisation, have been largely overlooked. This is of concern from an organisational perspective, as the international movement of labour facilitates the integration of a labour force with diverse cultural identities, which may adversely influence employees' responses to certain organisational changes.

Several theoretical models of job satisfaction have been developed (Hebb, 1949; Morse, 1953) in attempts to understand how employees respond to certain organisational changes. One of the theoretical models, and commonly accepted as one of the most comprehensive models, was developed by Locke (1969), whereby job values were used as the basis for predicting employees' job satisfaction. Empirical research continues towards identifying determinants of job satisfaction, and evidence suggests important contributory factors include socio-demographic variables (e.g. gender, age, marital status, educational level) and domain-specific variables such as dispositional influences (e.g. personality traits) (Judge and Bono, 2001) and work situational influences (e.g. job challenge, being acknowledged, job security) (Kovach, 1995). Such empirical research is of great value from an organisational perspective, as it can inform strategic programmes which are aimed at fostering higher levels of job satisfaction.

Several studies have demonstrated the importance of multinational enterprises taking cultural differences across foreign subsidiaries into account, to ensure the efficacy of their human resource management programmes (Luthans, 1993; Wasti, 1998). Oyserman (2001) also indicates that cultural identities are not formed in isolation, but within broader set of social values, norms and beliefs, which are shared with others within that context. As managers

became increasingly aware of how cultural values can affect employee behaviour, strategic programmes can be more purposefully designed and implemented, across a range of societies. The majority of previous literature linking culture with job satisfaction has been at the organisational level. For example, job satisfaction has been shown to be positively related to organisational cultures characterised as clan and adhocracy typologies¹ (Lund, 2003) as well as organisational cultures promoting fairness and opportunities for growth (Bellou, 2010). In contrast, associating job satisfaction with measures of a society's national cultural values and individual level cultural attitudes has not featured prominently in the literature. This general lack of embracing and empirically assessing the influence of culture as a factor contributing to job satisfaction can arguably be due to the subjective nature of two concepts, as well as the scarcity of data for the purpose of appropriately measuring culture. Although these issues are omnipresent, progress has been made in effectively measuring a range of cultural values that shape a society's cultural identity (Inglehart, 2006; Inglehart and Baker, 2000) through the use of cross-country data sets (e.g. European Values Study (EVS)). Such progress has led to empirical investigations demonstrating the link between individual cultural attitudes and job satisfaction (Fargher, Kesting, Pacheco and Lange, 2008; Huang and van de Vliert, 2004; Hui, Yee and Eastman, 1995; Lange, 2009; van der Westhuizen, Pacheco and Webber, 2012). Although these studies give valuable insight into the culture and job satisfaction relationship at a moment in time, there is no empirical literature which examines this relationship over a prolonged period of time.

Grounded on seminal research by Hofstede (1991), it appears that many researchers hold the view that cultural values remain stable over time. Based on such a position, culture can be viewed as a homeostatic quasi-equilibrium (Gaspay *et al.*, 2008) and thus, even though there is no empirical support, one can hypothesize that cultural values have a stable influence on job satisfaction over time. The need for evidence to corroborate or otherwise this perspective is becoming increasingly pertinent as culturally diverse labour forces are becoming more common and as organisations are trying to improve their competitive position through undertaking outsourcing initiatives. Findings could provide the basis for more robust organisational strategies aimed at fostering higher levels of job satisfaction given diverse cultural environments.

Therefore, the aim of this paper is to empirically examine whether the influence of cultural values on job satisfaction remain stable over time. Culture is parameterised by following the approach of Inglehart and Baker (2000). Additionally, all four waves of the EVS are incorporated in this study to allow for a comparison between 1981 and 2008 to be made. By undertaking this empirical examination, there is potential to bring clarity as to whether organisations should incorporate cultural attitudes and values into their organisational strategies aimed at fostering higher levels of job satisfaction.

2 Literature review

Job satisfaction

Although extensively researched, much debate surrounds the meaning of job satisfaction. At the centre of this debate is the question of whether job satisfaction is determined by the characteristics of the job itself, within the mind of the employee, or through the interaction of the employee and their job (Locke, 1969). Through addressing such questions, Locke (1969, p. 316) defines job satisfaction as “the pleasurable emotional state resulting from the appraisal of one’s job as achieving or facilitating the achievement of one’s job values”. In the context of this definition, Locke (1969, p. 320) defines values as “that which a man actually seeks to gain and/or keep or considers beneficial”. Based on these definitions, it can be postulated that job satisfaction is a function of the perceived relationship between what an employee seeks to gain from their job and what the employee perceives their job to be offering (Locke, 1969).

On an empirical level, job satisfaction has become one of the most widely focused areas of interest in organisational research due to the growing awareness of its relationship with withdrawal behaviours such as absenteeism, lateness and drug abuse (Saari and Judge, 2004). Earlier work on this subject (Hoppock, 1937; Kerr, 1948) laid the foundation for what has become a multi-disciplinary pursuit, including extensive work in human resource management, applied psychology, sociology and labour economics. Research in the social sciences continues towards identifying explanatory variables of job satisfaction, which include socio-demographic variables (e.g. gender, age, marital status and educational level) to

more domain-specific variables such as dispositional influences (e.g. personality traits) (Judge and Bono, 2001) and work situational influences (e.g. job challenge, being acknowledged, job security) (Kovach, 1995).

What is culture?

Although a plethora of empirical research exists supporting the link between organisational culture and individual values and behaviour (Bellou, 2010; Riggle, Edmondson and Hansen, 2009; Taylor, Levy, Boyacigiller and Beechler, 2008) linking this to how cultural values (at an individual and national level) can affect individual behaviour within an organisational setting has largely been neglected. Research on this front was initiated by Hofstede (1980) when he introduced a national cultural framework based on data that was collected from IBM employees across fifty countries in two survey rounds between 1967 and 1973 (Yamamura, Satoh and Stedham, 2003). Within this framework, a set of cultural dimensions were developed to characterise the concept of national cultureⁱⁱ, which was defined as “the collective programming of the mind that distinguished the members of one group or category of people from other” (Hofstede, 1980, p. 25). Central to this framework is the argument that culture is like one’s mental software, which is considerably stable in nature and is a consistently reliable predictor as to how individuals within society are likely to think and act (Hofstede, 1991). In contrast, some perceive culture as being more dynamic. For instance, Myers and Tan (2002) hold that culture is always being reinvented and in a continual state of flux, while Jones and Alony (2007) suggest that more research is needed to capture shifting cultural maps that are the result of globalisation. It is also argued that the homogenising effect of globalisation means that people are now operating within at least two national-based frames of cultural reference (Hewling, 2005). Consequently, due to the continuous exposure to new cultures, past cultural identities may have become diluted, and ultimately reinvented.

Supporting the notion that culture is open to change, Inglehart (2006) and Inglehart and Baker (2000) associated shifts in national culture with economic development. Industrialisation is documented as giving rise to distinct cultural shifts from traditional to secular-rational value systems, while the post-industrialisation phase is associated with

greater emphasis on self-expression over survival values. Within this cultural change, however, is often observed a significant degree of persistence of traditional values. This persistence, along with the variation in cultural values among industrialised societies, can be attributed to differences in cultural heritage, and particularly to religious heritage. To this point, Hofstede and Hofstede (2005) do acknowledge that visible cultural practices, such as symbols (e.g. words or gestures) and rituals (e.g. practices or activities), are formed later in life and are more susceptible to changing under alternative cultural environments. However, it is also argued that the core of culture is formed by values, which are tendencies to prefer certain states of affairs when compared to others (Hofstede and Hofstede, 2005). Formed early on in life, values are implicit and are typically held unconsciously, passed down through the generations as parents instil the same values into their children as they had instilled into them by their parents (Hofstede, Hofstede and Minkov, 2010). For this reason, an individual's values are likely to remain stable even if a person relocates to a different culture.

Theorising the exact nature of the relationship between cultural values and job satisfaction is a difficult task. Deresky (2011), as well as Browaeys and Price (2008) discuss how effective managers and particularly those in multinational organisations must be very aware of cultural differences, for example across subsidiaries in different countries. Where certain management strategies may result in very positive employee outcomes when used on employees in one culture, the effects may be much less effective when utilised on employees from other cultures. This implies that cultural attitudes (both at an individual and national level) may have a mitigating effect between various management inputs and employee outcomes, including job satisfaction. There are a range of possibilities in terms of the potential factors influencing this mitigating effect. For instance, it is theorised that an individual's cultural values can affect their expectations of various aspects of their job and workplace (Hui, 1990; Probst and Lawler, 2006). If reality exceeds their expectations, a higher level of job satisfaction is most likely to result, and vice versa. For example, certain cultural values, namely individualism (i.e. the extent to which people prefer to live with a strong sense of personal identity, as opposed to collectivism which refers to the preference of a group identity), may lead an individual to desire having self-directed and autonomous tasks in their job (Oyserman, Coon and Kimmelmeier, 2002). If an employer increases the level of autonomy for a set of employees, it would be expected that the job satisfaction of those

employees that hold the said cultural values will increase at a greater proportion than those that do not.

An alternative, but not necessarily opposing theory, suggests that cultural values may influence the level of resistance that individuals have in the face of various management initiatives (Kirkman and Shapiro, 1997; 2001). For example, cultural values that lead an individual to have a greater aversion to collaborating with others and relying on other team-members will be more likely to resist changes that push for greater team-based work. On the other hand, other cultural values may lead an individual to resist management initiatives that result in greater self-management. Attitudinal outcomes, such as lower commitment and lower job stratification, are ways in which individuals manifest resistances (Kotter and Schlesinger, 1979).

Recent contributions to the parameterisation and influence of cultural values on job satisfaction include Fargher *et al.* (2008), Huang and van de Vliert (2004), Hui *et al.* (1995), Lange (2009) and van der Westhuizen *et al.* (2012). The effects of cultural values on participatory decision making (PDM) and job satisfaction across Europe were empirically explored by van der Westhuizen *et al.* (2012)ⁱⁱⁱ whose empirical results suggest that movements towards traditional values resulted in higher levels of job satisfaction while movements towards survival values resulted in the opposite effect. Additionally, it was found that both traditional and self-expression values resulted in higher levels of PDM, and that this impact was more significant for women, with respect to the self-expression domain. In a comparative study, Fargher *et al.* (2008)^{iv} investigated the effects of cultural values on job satisfaction between Eastern and Western Europe and identified that traditional values were more imbedded in Western European culture, and thus played a more influential role in job satisfaction for this region. From a similar standpoint, Lange (2009) illustrated how a legacy constructed on communist industrial relations in Central and Eastern Europe influences job satisfaction, even after economic and social transition had occurred. Taking a different approach, Huang and van de Vliert (2004) found that job level (i.e. blue collar, white collar, professional, managers) was positively correlated with job satisfaction in countries with individualistic cultural values but had no effect on job satisfaction for countries with collectivistic cultural values.^v In contrast, Hui *et al.* (1995) found that collectivistic employees reported a higher level of satisfaction with their work and other job related variables (e.g.

pay, promotion, co-workers) than their individualistic counterparts. This result was consistent even after accounting for the different ranks of employees.

It appears clear that cultural values are a subjective concept that can be difficult to quantify. This study focuses on two dimensions of culture drawn from work by Inglehart (2006) and Inglehart and Baker (2000): i) traditional vs. secular-rational, and ii) survival vs. self-expression values. A range of variables available in the European Values Study fit into these two dimensions (see Section 2 for more details) and importantly were collected in all four waves between 1981 and 2008. Consequently, a key feature of this study is that it investigates the link between culture and job satisfaction over time, thereby providing an opportunity to gauge the influence of culture on job satisfaction beyond a specific period in time, something that has been neglected in existing empirical literature. To the knowledge of the authors, this is the first study to empirically inspect the interaction of culture and job satisfaction across time. It is also important to recognise that while these cultural values / attitudes are based on individual data, they can also be linked to the national level, as the predominant set of values (whether traditional or secular rational; survival or self-expression) often help form the national cultural identity.

3 Data and methodology

Data

Our data represent the four waves of the European Values Study (EVS), which ran in 1981, 1990, 1999/2000 and most recently in 2008.^{vi} The sample is restricted to the countries that were surveyed across all four waves to provide a consistent data source.^{vii} Our sample is also restricted to those respondents who were employed, of working age (between the ages of 18 and 64) and not self-employed. This yielded an effective sample of 17,600 respondents.

Job satisfaction is a self-reported ordinal variable on a scale of 1-10, with 1 representing ‘complete dissatisfaction’ and 10 corresponding to ‘complete satisfaction’ with the respondent’s job. Job satisfaction relative to the country average is used as the dependent variable in the upcoming empirical analysis, to control for country-specific influences in our

estimations.^{viii} A potential concern is whether our single item job satisfaction variable captures the multidimensional nature of the concept, as we cannot distinguish between the extrinsic (e.g. instrumental, material) aspects of employment such as promotion, pay or job security, and the intrinsic (e.g. quality of work) aspects such as relations with managers, scope for initiative, and the nature of work itself. While we acknowledge this concern, we take comfort from research by Wanous, Reichers and Hudy (1997), which suggests that workers' satisfaction can be adequately examined on the basis of a single-item measurement. Further research, (once more suitable data is available), should explore whether the use of single item measurements for job satisfaction affect the subsequent statistical relationships identified here. To test the robustness of our subsequent results, we also re-estimated the upcoming empirical models using z-score transformations (which take into account the standard deviation of the variable) of the job satisfaction variable.

Table 1 provides descriptive statistics of all explanatory variables used in the forthcoming empirical analysis. These include a range of socio-demographic characteristics (e.g. gender, age, marital status and household income), work-related characteristics (e.g. occupational status,^{ix} job values) and cultural values of the individual.

< Insert Table 1 >

This study focuses on two dimensions of culture grounded on previous research by Inglehart (2006) and Inglehart and Baker (2000): i) traditional vs. secular-rational, and ii) survival vs. self-expression values. Traditional societies tend to emphasize religion, the family unit, absolute moral standards and deference to authority, while secular-rational values emphasize the opposite. In terms of the latter dimension, societies ranking highly with regard to survival values are found to prioritise economic and physical security above all else, which leads to insistence on traditional gender roles, low levels of interpersonal trust, intolerance of others, and an emphasis on hard work, while self-expression values favour the opposite. A range of variables were selected from the EVS to capture these two distinct cultural spectrums.

Figure 1 portrays the mean values of the cultural variables for the core set of countries that are comparable across all four EVS waves. In contrast to all the other cultural variables that are dummy in nature, “no divorce” and “homosexuality is never justifiable” are categorical

and ordered from 1 to 10 and are therefore placed on the secondary axes in the two plots shown in Figure 1. With respect to the traditional cultural values, all except “believes in hell” follow a downward trend in our core countries sample. Most noticeably, “confidence in church” has experienced a substantial drop between the 3rd and 4th wave of the EVS. The decline in the mean for “confidence in church” is not surprising given that the social importance of religion has generally decreased across Europe (Voicu, 2009). Furthermore, with beliefs (including those of a religious nature) being commonly prescribed by the church and practices of the local community (Halman and Draulans, 2004), and urbanisation breaking local community ties allowing individuals to adjust their beliefs systems (Voicu, 2009), one would expect less people to report confidence in religious institutions (i.e. church).

< Insert Figure 1 >

In a similar fashion, all five indicators of survival values have decreased in importance over the sample period. Two variables are particularly prominent: “homosexuality is never justifiable” became increasingly justifiable and “tolerance and respect are unimportant to teach at home” experienced a remarkable increase (i.e. intolerance fell) between the 1st and 2nd wave. These observations are in-line with existing literature which finds that self-expressive values have increased in importance over the past few decades within industrialised societies (Inglehart, 2006; Inglehart and Baker, 2000). Hofstede *et al.* (2010) also acknowledges that national wealth is associated with increasing levels of individualism, which is itself a close equivalent of the self-expression measure (Inglehart, 2006).

While Figure 1 provides insight into the general trends of cultural values across Europe over time, more complex econometric work is required to extract the impact of these values on job satisfaction, holding constant other potential confounding factors.

Empirical approach

Given the categorical and ordinal nature of the job satisfaction variable, an appropriate empirical estimation approach to apply to identify the determinants of job satisfaction is ordered logistic regression. The general form of the ordered logit model is:

$$Y_i = \beta X_i' + u_i \quad i = 1, 2, \dots, N \quad (1)$$

with the ordered response, Y , having 10 categories. The ordered response model is defined as:

$$\Pr(Y = j | X, \alpha, \beta) = F_j(\alpha_j - X' \beta) - F_{j-1}(\alpha_{j-1} - X' \beta) \quad (2)$$

where $j = 1, 2, \dots, 10$, $\alpha_0 = -\infty$, $\alpha_{j-1} \leq \alpha_j$, $\alpha_m = \infty$ and F is the cumulative distribution function of the logistic distribution $F_j = 1/(1 + \exp(-(\alpha_j - X' \beta)))$. The underlying job satisfaction equation for estimation is:

$$JS = \alpha + \beta * Culture + \beta * Job\ values + \beta * Job\ level + \beta * Gender + \beta * Age \\ + \beta * Marital\ status + \beta * Employment\ characteristics + \beta * Household\ income + u \quad (3)$$

In all upcoming empirical analysis, we control for country specific influences, clustering by country affiliation. Additionally, to ensure that the occurrence of multicollinearity was minimised in the forthcoming regressions, all cultural variables were orthogonalised using Draper and Smith's (1981) orthogonalisation process. For the traditional variables, this is done with respect to the 'confidence in church' indicator; and for the survival values, this is done with respect to the 'homosexuality is never justifiable' variable. This process ensures that each of the cultural variables are contributing a unique aspect within their own cultural value domain, and are not related to the other cultural variables within their own cultural value domain.

4 Results

The examination of the cultural variables above highlights some important trends. However, a more sophisticated empirical approach is required in order to identify whether cultural values influence job satisfaction. The results of our ordered logistic regression are provided in Table 2.^x

< Insert Table 2 >

Three model variants were employed for each of the four waves of the EVS. The first model includes only socio-demographic characteristics as determinants of job satisfaction; the second augments this model with work-related characteristics; while the third augments it further to include cultural values based on the two dimensions of traditional vs. secular-rational and survival vs. self-expression.

Our early model suggests that males are more satisfied at work relative to their female counterparts (e.g. model I in 1990 and 1999) but this impact changes sign when work-related characteristics are added to the model. The finding that men are less satisfied at work, on average, relative to females, corresponds to findings by Fargher *et al.* (2008) who made use of just the 3rd wave of the EVS.

Apart from 1981, the results support a U-shaped relationship between “age” and job satisfaction. Clark, Oswald and Warr (1996) link this empirical observation to an individual’s personal circumstances over their life stages, and non-work related factors that impact on job satisfaction. The effect of marital status on job satisfaction is generally positive if the worker is married, though this impact is not always statistically significant. Once we have taken account of the fullest range of explanatory variables (i.e. model III) then we find that it is only in 1999 that being married had a significant positive impact on job satisfaction.

Based from the results of model I, the impact of household income on job satisfaction shows that belonging to a medium or high income household has a positive impact on job satisfaction, relative to belonging to a low income household. However, in 1999 and 2008,

these estimated coefficients turn negative, once work-related characteristics are added to the model (i.e. models II and III). This result may be due to workers from higher income households having higher expectations than those from lower income households, and once work-related factors such as occupational status and other work attitudes are controlled for, the impact on job satisfaction is negative, as these expectations are not being met. This reasoning may also help to explain why the impact of belonging to a higher income household was still positive (albeit statistically insignificant) prior to 1990, even after controlling for work-related characteristics; expectations of what you receive from your job in terms of utility may have been lower three decades ago or they may have become artificially inflated over time, and hence these expectations were easier to meet and exceed in wave 1, relative to waves 2, 3 and 4.

It would have been useful to add education to the group of socio-demographic characteristics in Table 2, as it is often expected to play a key part in determining job satisfaction. However, in order to ensure consistency across our specifications in all four waves it was necessary to exclude educational qualifications as an explanatory variable because data was not collected as part of the survey in waves 1 and 2 of the EVS. While this is an important limitation to acknowledge, we draw comfort from the fact that other recent studies, such as Fargher *et al.* (2008), did not find a statistically significant impact of medium educational attainment (relative to low levels of education) across the whole European sample in their study of wave 3, and only found a significant impact of high educational attainment on job satisfaction for males from Western Europe. Additionally, we would expect to indirectly capture educational attainment through the use of occupational status indicators (professional, skilled, less skilled and manual), which many past empirical studies, such as Fargher *et al.* (2008), did not employ in their specifications.

With respect to work-related characteristics, the impact of “PDM” on job satisfaction stands out. Having the freedom to be part of the decision making process appears to be a key determinant of satisfaction at work, and this result is unchanged when cultural characteristics are added to the specification (i.e. model II to III). This finding validates recent empirical research by van der Westhuizen *et al.* (2012) which found this result for wave 4 of the EVS, and our findings also indicate that this impact appears to be time-invariant over the 1981-2008 period.

Within the set of work-values, if the individual thinks that “good pay” is an important job characteristic then they are less likely to be satisfied at work. The same result holds for “good hours”. It is likely that those who indicate that either “good pay” and / or “good hours” are important are those who are not happy with their pay and / or hours, and hence is a possible reason why they are less satisfied at work. “Job security” appears to have had a decreasing impact on job satisfaction over time; it was significant at the 1 percent level in 1981, as well as in model II in 1990, and significant at the 10 percent level in model II in 1999, and insignificant by 2008.

Cultural values

Our attention now turns to our core set of independent variables. For the first set of cultural values, those from the traditional vs. secular-rational perspective, the results from the ordered logistic regression generally support the notion that the influence of cultural values on job satisfaction remains stable over time. In particular, two variables stand out: i) “confidence in church” and ii) “always love and respect one’s parents” Both variables have statistically significant positive impacts on job satisfaction in all four waves.^{xi}

< Insert Table 3 >

Although the preliminary analysis of mean values in Figure 1 indicated that there has been an overall decline in “confidence in the church”, with a substantial drop between the 3rd (1999 / 2000) and 4th (2008) wave of the EVS, the results of the ordered logistic regression portrays that in general, having “confidence in church” does have a positive influence on a respondents’ job satisfaction and this influence has remained relatively stable between 1981 and 2008. The odds ratios indicate that having confidence in church results in an individual being 11.4 percent more likely to move up one category of job satisfaction in 1981, and this figure steadily increases to 18.8 percent by 2008.

Such findings provide credence to Inglehart and Baker's (2000) notion that even though church attendance has dwindled to the point where only a small number attend church services regularly, religious traditions have shaped national culture through institutions, like the church, to a point where those values have become ingrained within individuals and ultimately shape their behaviour and values within various life domains. Such results also corroborate recent propositions by Hofstede and Hofstede (2005), who argue that while culture remains stable over time, rituals and practices (e.g. Church attendance) are more supple to change.

A similar finding is identified for "always loving and respecting ones parents": although the trend emphasised in the previous section showed that there has been an overall decrease, its positive influence on job satisfaction appears to be relatively stable across the four waves of the EVS. Fargher *et al.* (2008) who found a similar result for male respondents using data from wave 3 of the EVS, attributed their finding to conformity values which may spill-over into a respondents' work domain.

Taken together, the results for the traditional vs. secular-rational values are consistent with Hofstede's main thesis that culture is like one's mental software, considerably stable in nature and a consistently reliable predictor as to how individuals within society are likely to think and act. In particular, our findings indicate that traditional values are a consistent predictor over time of individuals' perception of utility in their workplace. Inglehart and Baker (2000) also observed that while industrialisation brings with it a shift from traditional to secular-rational values, there is no on-going effect evident post-industrialisation. That is, this dimension demonstrates relative stability beyond the initial surge in economic development.

For the second set of cultural values, those from a survival vs. self-expression based perspective, the results from the ordered logistic regression generally counter the notion that culture remains stable across time. The first three variables under this domain (i.e. "homosexuality is never justifiable", "tolerance and respect are unimportant to teach at home" and "would never sign a petition") displayed an overall decrease in their influence over job satisfaction across the four waves of the EVS. This is in line with the results of the preliminary descriptive statistics presented in Section 3 which showed a decrease in the mean values of "homosexuality is never justifiable" and "tolerance and respect are unimportant to

teach at home” Based on the results in Table 2, the positive influence of “homosexuality is never justifiable” on job satisfaction is only statistically significant in the first and third wave of the EVS, and this result represents changing and less-rigid attitudes towards sexual orientation. The belief that “tolerance and respect are unimportant to teach at home” had a statistically significant and positive impact on job satisfaction in the first wave of the EVS only. Furthermore, never expressing one’s civil liberties through signing a petition was positively-related and statistically significant with respect to job satisfaction in the first three waves of the EVS. These results are not surprising in light of empirical literature which shows that cultural values across various countries have generally moved toward self-expressive type values^{xii} (Flanagan and Lee, 2003; Hageaars, Halman and Moors, 2003; Inglehart and Baker, 2000).

The second grouping of survival vs. self-expression variables showed that values relating to “have to be careful when trusting people” and “child needs both parents to be happy” were only statistically significant determinants of job satisfaction in the second wave of the EVS. What is more, “have to be careful when trusting people” is the only cultural variable which exhibits a relatively strong and negative impact on job satisfaction in 1990. This result aligns with the empirical findings by Fargher *et al.* (2008), who argued that interpersonal trust is a social construct, which ultimately shapes individuals’ preferences and attitudes, including attitudes towards work.

In contrast to the group of variables characterising traditional values, the results from Table 2 and subsequent odds ratios presented in Table 3 show that there has been shifts in cultural values across the four waves of the EVS, and especially with respect to values concerning survival vs. self-expression. These shifts go against Hofstede’s premise that culture is stable and a consistent and reliable predictor of how individuals will behave or act (Hofstede, 1980). The shifts have occurred on two distinct levels: i) an overall shift towards a greater focus of self-expression (i.e. displaying higher levels of tolerance for outgroups and respect for individuals’ freedom of expression), and ii) a continual reinvention of cultural values relating to interpersonal trust and two-parent families across two decades. The results also suggest that shifts toward a culture more focussed on self-expression do not influence workers’ job satisfaction, at least not at conventionally accepted levels of statistical significance. This calls into question Inglehart and Baker’s (2000) findings that individuals who are orientated

towards self-expression values should display higher levels of subjective well-being. However, based on theoretical work by Locke (1969), if individuals do not perceive their job values as being achieved within the work environment (e.g. opportunities for self-expression) then low job satisfaction is likely to result. Therefore, organisational programmes may need to be (re)aligned in support of changing cultures to ensure job satisfaction is being promoted and organisational benefits are being captured.

Overall, the results from Tables 2 and 3 are relatively unambiguous and can be summarized succinctly by two main findings: (i) the time-invariant impact of traditional cultural values on job satisfaction, and (ii) the declining importance of survival values on job satisfaction. Further research is required to delve deeper into the potential causes of these trends. For instance, are there country-specific factors that play a role in this sample from Europe and/or are demographic shifts in the working age population driving either of these outcomes. While this is beyond the scope of the paper, preliminary analysis of a proxy age cohort born in 1960 does reveal that the importance of “confidence in church” is increasing in terms of its influence on job satisfaction, while the reverse is true for the value that “homosexuality is never justifiable”

Repeating the regression analysis for the age group 21-30 in wave 1, 31-40 in wave 2, 41-50 in wave 3 and 51-60 year olds in wave 4 yields insignificant odds ratios for “confidence in church” in 1981 and 1990, which increase to 1.118 and 1.250 (significant at the 5 percent level) in 1999 and 2008, respectively. This evidence corroborates Smith (2012) who finds that belief in God^{xiii} is the highest among older adults. When analysing differences among age groups, it is found that the largest hike in belief in God occurred among those aged 58 and older, which is arguably in response to being at the age level where there is an increasing anticipation of one’s own mortality (Smith, 2012)

Using the same empirical approach reveals a contrasting pattern for “homosexuality being never justifiable”, with the odds ratios falling from 1.164 (significant at the 5 percent level) in 1981 to 0.987 (insignificant) by 2008. This indicates that at the start of an average individual’s working life, having the value that “homosexuality is never justifiable” actually increased job satisfaction levels, but by the end of their working life span (i.e. aged 51-60 in wave 4) this impact diminishes to a negligible effect.

5 Conclusions

Determining what factors influence workers' job satisfaction levels has become a growing point of interest for organisations. Although the current body of research is of undoubted value, the potential effects of globalisation and international labour migration on job satisfaction has been largely overlooked. With a focus on Europe, this study investigates whether diversity in cultural values differentially affect job satisfaction over time.

This paper made use of the recently released fourth wave of the EVS and combined it with all previous waves collected since 1981. The ordered logit regression model was applied for the balanced group of countries in each wave. At first the model focussed solely on socio-demographic characteristics as determinants of job satisfaction, where results were generally consistent with extant literature. One limitation of ensuring consistency in method and variables across time was the exclusion of education from the investigation. Nonetheless, we would expect to indirectly capture educational attainment through the use of occupational status indicators.

The empirical analyses were extended to include work-related characteristics, where the impact of participatory decision making on job satisfaction stood out; having the freedom to be part of the decision making process appears to be an important determinant of job satisfaction, and this result is stable to the inclusion of cultural characteristics. This is consistent with recent empirical research by van der Westhuizen *et al.* (2012).

In terms of the impacts of individual cultural values / attitudes on job satisfaction, our analysis yielded two important findings: i) the impacts of traditional values on job satisfaction appear to be time-invariant and ii) the significance of survival values declined substantially over the sample period. With respect to the traditional vs. secular-rational based perspective, confidence in church and always respect and love one's parents both had significant impacts on job satisfaction over time. Initially, this supports Hofstede's (1980) notion that culture is considerably stable in nature and therefore a reliable predictor of how individuals within society are likely to think and act. However, the impacts of survival values on job satisfaction were not time-invariant and some may be reinvented across time.

Preliminary analysis of a proxy cohort who were born in 1960 corroborated the results of the full sample.

The results presented in this article are important for organisational management and policy formation, as asymmetries in cultural values may be critical to satisfaction in the workplace. Managers working within a multi-cultural environment should not be culture-blind to human resource practices. Awareness of, and respect for, cultural differences should be high on the radar for managers, especially those working within a multi-national organisation. The generally accepted belief that culture is considerably stable in nature, and would therefore be a reliable predictor as to how individuals within the workplace are likely to think and act, must be called into question, specifically when cultures adopt values within the survival vs. self-expression based perspective. Perhaps more open communication throughout the organisation can facilitate further understanding of the influence of culture on job satisfaction and how these evolve. Such understanding may assist in the development of effective strategies aimed at increasing job satisfaction. For example, when designing organisational programmes in societies which are more traditional in nature, managers should be aware that such societies tend to have absolute moral standards and deference to authority; whereas if the society is more survival in terms of its value system, then security is paramount, and low levels of trust should be accounted for. Furthermore, taking account of such cultural influences could also help inform the design of more effective role types, position descriptions and recruitment strategies to increase the likelihood of attracting the right candidates for employment.

References

- Bellou, V. (2010). Organizational culture as a predictor of job satisfaction: The role of gender and age. *Career Development International*, 15(1), 4-19.
- Browaeyns, M. and Price, R. (2008). *Understanding cross-cultural management*. Essex, England: Pearson Education Limited.
- Clark, A. E., Oswald, A. and Warr, P. (1996). Is job satisfaction u-shaped in age? *Journal of Occupational and Organizational Psychology*, 69(1), 57-81.
- Deresky, H. (2011). *International management - Managing across borders and cultures*. Upper Saddle River, New Jersey: Pearson Education Limited.
- Draper, N. and Smith, H. (1981). *Applied regression analysis*. New York: John Wiley and Sons.
- Fargher, S., Kesting, S., Lange, T., and Pacheco, G. (2008). Cultural heritage and job satisfaction in Eastern and Western Europe. *International Journal of Manpower*, 29(7), 630-650.
- Flanagan, S. and Lee, A. R. (2003). The new politics, culture wars, and the authoritarian-libertarian value change in advanced industrial democracies. *Comparative Political Studies*, 36(3), 235-270.
- Gaspay, A., Dardan, S. and Legorreta, L. (2008). Software of the mind – A review of applications of Hofstede's theory to IT research. *Journal of Information Technology Theory and Application*, 9(3), 1-37.
- Hagenaars, J., Halman, L. and Moors, G. (2003). Exploring Europe's basic values map. In W. Arts, J Hagenaars and L. Halman (Eds.), *The cultural diversity of European unity* (pp. 23-58). Leiden, Netherlands: Brill.
- Halman, L. and Draulans, V. (2004). Religious beliefs and practices in contemporary Europe. In W. Arts and L. Halman (Eds.), *European values at the turn of the millennium* (pp. 283-316). Leiden, Netherlands: Brill.
- Hebb, D. O. (1949). *The organization of behaviour*. New York: John Wiley and Sons.
- Hewling, A. (2005). Culture in the online class: Using message analysis to look beyond nationality-based frames of reference. *Journal of Computer-Mediated Communication*, 11(1), 337-356.
- Hoppock, R. (1937). Job satisfaction of psychologists. *Journal of Applied Psychology*, 21(3), 300-303.
- Hofstede, G. (1980). *Culture's consequences: International differences in work related values*. Beverly Hills: Sage.
- Hofstede, G. (1991). *Cultures and organizations: Software of the mind*. McGraw-Hill
- Hofstede, G. and Hofstede, G. J. (2005). *Cultures and organizations: Software of the mind*. New York, McGraw-Hill.
- Hofstede, G., Hofstede, G. J. and Minkov, M. (2010). *Cultures and organizations: Software of the mind*. (3rd ed.). New York, McGraw-Hill.
- Huang, X. and Van de Vliert, E. (2004). Job level and national culture as joint roots of job satisfaction. *Applied Psychology*, 53(3), 329-348.
- Hui, C.H. (1990). Work attitudes, leadership styles, and managerial behaviors in different cultures. In R.W. Brislin (Ed.), *Applied cross-cultural psychology* (pp. 186–208). Thousand Oaks, CA: Sage Publications.
- Hui, C.H., Yee, C. and Eastman, K.L. (1995) The relationship between individualism-collectivism and job satisfaction, *Applied psychology: An international review* 44 276-282
- Inglehart, R. (2006). Mapping global values. *Comparative Sociology*, 5(2), 115-136.

- Inglehart, R., and Baker, W. (2000). Modernization, cultural change, and the persistence of traditional values. *American Sociological Review*, 65(1), 19-55.
- International Labour Organization. (2010). *International Standard Classification of Occupations*. Retrieved September 13, 2012, from <http://www.ilo.org/public/english/bureau/stat/isco/isco08/index.htm>
- Jones, M., and Alony, I. (2007). The cultural impact of information systems – Through the eyes of Hofstede – A critical journey. *Issues in Informin Science and Information Technology* 4, 407-419.
- Judge, T. A. and Bono, J. E. (2001). Relationship of core self-evaluations traits - self-esteem, generalized self-efficacy, locus of control, and emotional stability - with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology*, 86(1), 80-92.
- Kerr, W. (1948). On the validity and reliability of the job satisfaction tear ballot. *Journal of Applied Psychology*, 32(3), 275-281.
- Kirkman, B. L. and Shapiro, D. L. (1997). The impact of cultural values on employee resistance to teams: To-ward a model of globalized self-managing work team effectiveness. *Academy of Management Review*, 22(3), 730-757.
- Kirkman, B. L. and Shapiro, D. L. (2001). The Impact of cultural values on job satisfaction and organizational commitment in self managing work teams: The mediating role of employee resistance. *The Academy of Management Journal*, 44(3), 557-569.
- Kotter, J. P. and Schlesinger, L. A. (1979). Choosing strategies for change. *Harvard Business Review*, 57, 106-114.
- Kovach, K. A. (1995). Employee motivation: Addressing a crucial factor in your organization's performance. *Employment Relations Today*, 22(2), 93-107.
- Lange, T. (2009). Attitudes, attributes and institutions: Determining job satisfaction in Central and Eastern Europe. *Employee Relations*, 31(1), 81-97.
- Locke, E. A. (1969). What is job satisfaction? *Organizational Behavior and Human Performance*, 4(4), 309-336.
- Lund, D. B. (2003). Organizational culture and job satisfaction. *Journal of Business and Industrial Marketing*, 18(3), 219-236.
- Luthans, F. (1993). A Paradigm shift in Eastern Europe: Some helpful management development techniques. *Journal of Management Development*, 12(8), 53-60.
- Morse, N. C. (1953). *Satisfaction in the white-collar job*. Ann Arbor, MI: University of Michigan, Survey Research Center.
- Myers, M. D. and Tan, F. B. (2002). Beyond models of national culture in information systems research. *Journal of Global Information Management*, 10(2), 1-19.
- Oyserman (2001)
- Oyserman, D., Coon, H.M. and Kimmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, 128(1), 3-72.
- Probst, T. M. and 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.
- Riggle, R. J., Edmondson, D. R. and Hansen, J. D. (2009). A meta-analysis of the relationship between perceived organizational support and job outcomes: 20 Years of research. *Journal of Business Research*, 62(10), 1027-1030.
- Saari, L. M. and Judge, T. A. (2004). Employee attitudes and job satisfaction. *Human Resource Management*, 43(4), 395-407.
- Sagie, A. and Aycan, Z. (2003). A cross-cultural analysis of participative decision-making in organizations. *Human Relations*, 5(4), 453-473.

- Smith, T. (2012). Beliefs about God across time and countries. Report for International Social Survey Program and General Social Survey.
- Taylor, S., Levy, O., Boyacigiller, N. A. and Beechler, S. (2008). Employee commitment in MNCs: Impacts of organizational culture, HRM, and top management orientations. *International Journal of Human Resource Management*, 19(4), 501-527.
- van der Westhuizen, D. W., Pacheco, G. and Webber, D. J. (2012). Culture, participative decision making and job satisfaction. *The International Journal of Human Resource Management*, 23(13), 2661-2679.
- Voicu, M. (2009). Religion and gender across Europe. *Social Compass*, 56(2), 144-162.
- Wanous, J. P., Reichers, A. E. and Hudy, M. J. (1997). Overall job satisfaction: How good are single-item measures? *Journal of Applied Psychology*, 82(2), 247-252.
- Wasti, S. (1998). Cultural barriers in the transferability of Japanese and American human resource practices to developing countries: The Turkish case. *The International Journal of Human Resource Management*, 9(4), 608-631.
- Welzel, C. (2010). How selfish are self-expression values? A civicness test. *Journal of Cross-Cultural Psychology*, 41(2), 152-174.
- Yamamura, J. H., Satoh, M. and Stedham, Y. (2003). Changing dimensions of national culture in Japan: Applying the Hofstede framework (Economic Research Center Discussion Paper No. 143).

Figure 1: Changes in cultural values over time

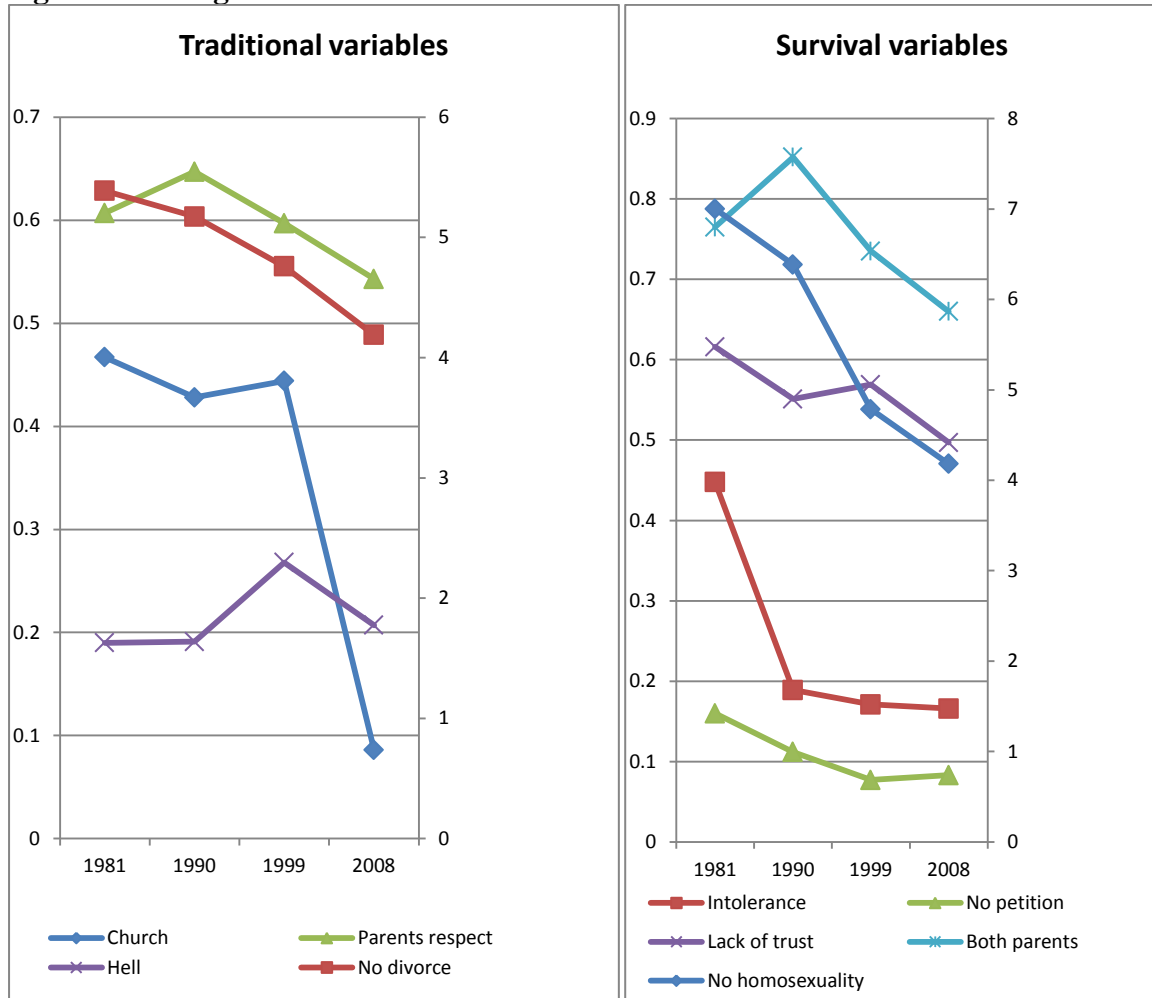


Table 1: Descriptive statistics

	Definition	Mean (Stddev)			
		1981	1990	1999	2008
Socio-demographic characteristics					
Job satisfaction	Ordinal categorical variable on a scale 1 to 10 (1=extremely dissatisfied, 10=extremely satisfied) minus average country job satisfaction.	-0.165 (2.050)	0.013 (1.942)	-0.085 (1.829)	0.017 (1.791)
Male	Dummy variable: 1 for male; 0 otherwise	0.602 (0.490)	0.589 (0.492)	0.551 (0.497)	0.505 (0.500)
Age	Age in years	35.109 (12.349)	37.988 (11.600)	38.982 (10.763)	41.545 (11.235)
Married	Dummy variable: 1 for married or registered partnership; 0 otherwise	0.682 (0.466)	0.707 (0.455)	0.600 (0.490)	0.583 (0.493)
Widowed	Dummy variable: 1 for widowed; 0 otherwise	0.017 (0.128)	0.018 (0.133)	0.013 (0.112)	0.015 (0.121)
Med income	Dummy variable: 1 for middle income; 0 otherwise	0.526 (0.499)	0.468 (0.499)	0.553 (0.497)	0.546 (0.498)
High income	Dummy variable: 1 for high income; 0 otherwise	0.407 (0.491)	0.307 (0.461)	0.282 (0.450)	0.395 (0.489)
Part time	Dummy variable: 1 for employed part time; 0 otherwise	0.145 (0.353)	0.122 (0.327)	0.174 (0.379)	0.166 (0.372)
Skilled	Dummy variable: 1 for skilled; 0 otherwise	0.384 (0.487)	0.379 (0.485)	0.404 (0.491)	0.331 (0.471)
Less skilled	Dummy variable: 1 for less skilled; 0 otherwise	0.327 (0.469)	0.331 (0.471)	0.289 (0.453)	0.245 (0.430)
Manual	Dummy variable : 1 for manual; 0 otherwise	0.185 (0.388)	0.124 (0.329)	0.101 (0.302)	0.133 (0.340)
Work-related characteristics					
PDM	Participative decision making. Ordinal categorical variable on a scale 1 to 10. (1=no decision making freedom in job, 10=great deal of decision making freedom in job)	6.270 (2.627)	6.636 (2.481)	6.795 (2.397)	6.900 (2.264)
Good pay	Dummy variable: 1 if individual thinks good pay is an important job characteristic; 0 otherwise	0.686 (0.464)	0.732 (0.443)	0.794 (0.405)	0.717 (0.451)
Pleasant people	Dummy variable: 1 if individual thinks sense of belonging/pleasant co-workers is an important job characteristic; 0 otherwise	0.735 (0.442)	0.738 (0.440)	0.787 (0.409)	0.764 (0.425)
Job security	Dummy variable: 1 if individual thinks job security is an important job characteristic; 0 otherwise	0.579 (0.494)	0.601 (0.490)	0.581 (0.493)	0.514 (0.500)
Good hours	Dummy variable: 1 if individual thinks good working hours is an important job characteristic; 0 otherwise	0.465 (0.499)	0.457 (0.498)	0.526 (0.499)	0.427 (0.495)
Use initiative	Dummy variable: 1 if individual thinks opportunity to use initiative (freedom for self-expression) is an important job characteristic; 0 otherwise	0.472 (0.499)	0.553 (0.497)	0.564 (0.496)	0.504 (0.500)
Achieve something	Dummy variable: 1 if individual thinks potential to achieve something (ego motivation) is an important job characteristic; 0 otherwise	0.523 (0.500)	0.601 (0.490)	0.614 (0.487)	0.537 (0.499)

Interesting work	Dummy variable: 1 if individual thinks interesting work is an important job characteristic; 0 otherwise	0.590 (0.492)	0.661 (0.473)	0.701 (0.458)	0.633 (0.482)
Task knowledge	Dummy variable: 1 if individual thinks task knowledge (job that meets one's abilities) is an important job characteristic; 0 otherwise	0.513 (0.500)	0.571 (0.495)	0.600 (0.490)	0.493 (0.500)
Traditional cultural values					
Confident in church	Dummy variable: 1 if great deal or quite a lot of confidence in church; 0 otherwise	0.467 (0.499)	0.428 (0.495)	0.444 (0.497)	0.086 (0.280)
Divorce is never justifiable	Ordinal categorical variable on a scale 1 to 10 (1= divorce is always justifiable; 10= divorce is never justifiable)	5.388 (2.932)	5.174 (2.716)	4.760 (2.841)	4.188 (2.682)
Always love and respect ones parents	Dummy variable: 1 if always love and respect parents; 0 otherwise	0.607 (0.488)	0.647 (0.478)	0.597 (0.491)	0.543 (0.498)
Believes in hell	Dummy variable: 1 if believes in hell; 0 otherwise	0.190 (0.392)	0.191 (0.393)	0.268 (0.443)	0.207 (0.406)
Survival cultural values					
Homosexuality is never justifiable	Ordinal categorical variable on a scale 1 to 10 (1= homosexuality is always justifiable; 10= homosexuality is never justifiable)	7.001 (3.255)	6.386 (3.260)	4.786 (3.328)	4.182 (3.143)
Tolerance and respect are unimportant to teach at home	Dummy variable: 1 if individual didn't mention teaching tolerance and respect at home as being important; 0 otherwise	0.448 (0.497)	0.189 (0.392)	0.171 (0.376)	0.166 (0.372)
Would never sign a petition	Dummy variable: 1 if would never sign a petition; 0 otherwise	0.160 (0.367)	0.112 (0.315)	0.077 (0.267)	0.083 (0.275)
Have to be careful when trusting people	Dummy variable: 1 if have to be careful when trusting people; 0 otherwise	0.616 (0.486)	0.551 (0.497)	0.569 (0.495)	0.497 (0.500)
Child needs both parents to be happy	Dummy variable: 1 if child needs both parents to grow up happy; 0 otherwise	0.765 (0.424)	0.852 (0.355)	0.735 (0.442)	0.660 (0.474)
Sample size		3128	5295	4309	4868

Note: Standard deviations in parenthesis. Reference categories for socio-demographic characteristics are Female, Non-married or widowed, Low income, Full time and Professionals.

Table 2: Job satisfaction model

Variable	1981			1990			1999			2008		
	Model I	Model II	Model III	Model I	Model II	Model III	Model I	Model II	Model III	Model I	Model II	Model III
Socio-demographic characteristics												
Male	-0.018 (0.068)	-0.128 (0.079)	-0.098 (0.096)	0.040* (0.030)	-0.071* (0.043)	-0.077 (0.075)	0.109** (0.056)	-0.033 (0.064)	-0.063 (0.072)	-0.047 (0.061)	-0.152** (0.061)	-0.170*** (0.056)
Age	0.035*** (0.013)	-0.001 (0.012)	0.008 (0.014)	-0.011 (0.012)	-0.034*** (0.013)	-0.017 (0.012)	-0.050** (0.024)	-0.086*** (0.026)	-0.086*** (0.027)	-0.040*** (0.014)	-0.052*** (0.010)	-0.049*** (0.012)
Age ²	-0.0002 (0.0002)	0.0002 (0.0001)	0.0000 (0.0002)	0.0003** (0.0001)	0.001*** (0.0002)	0.0003** (0.002)	0.0008*** (0.0003)	0.001*** (0.0003)	0.001*** (0.0003)	0.001*** (0.0002)	0.001*** (0.0001)	0.001*** (0.0002)
Married	0.124 (0.079)	0.114 (0.083)	0.115 (0.125)	0.130* (0.079)	0.097 (0.073)	0.056 (0.106)	0.160*** (0.055)	0.208*** (0.062)	0.159** (0.066)	0.157** (0.071)	0.099* (0.060)	0.076 (0.060)
Widowed	0.373* (0.231)	0.369** (0.167)	0.247 (0.273)	0.028 (0.184)	0.048 (0.225)	-0.009 (0.259)	0.222 (0.237)	0.114 (0.191)	0.154 (0.272)	0.069 (0.234)	0.163 (0.193)	0.147 (0.183)
Med income	0.206 (0.102)	0.098 (0.119)	0.126 (0.182)	0.135** (0.052)	0.090 (0.092)	0.030 (0.123)	0.126 (0.124)	-0.055 (0.140)	-0.058 (0.158)	0.175 (0.129)	-0.098 (0.157)	-0.115 (0.143)
High income	0.333 (0.206)	0.088 (0.205)	0.122 (0.265)	0.234** (0.095)	-0.077 (0.102)	-0.153 (0.154)	0.238 (0.156)	-0.125 (0.167)	-0.058 (0.172)	0.375 (0.231)	-0.134 (0.223)	-0.121 (0.203)
Work-related characteristics												
Part time		-0.031 (0.104)	0.023 (0.099)		-0.040 (0.124)	0.043 (0.096)		-0.138 (0.091)	-0.156* (0.069)		0.056 (0.130)	0.070 (0.127)
Skilled		0.835 (0.143)	0.099 (0.127)		-0.005 (0.110)	-0.039 (0.093)		-0.033 (0.088)	-0.019 (0.073)		-0.078 (0.086)	-0.114 (0.070)
Less skilled		0.178 (0.149)	0.051 (0.124)		0.129 (0.115)	0.097 (0.112)		-0.031 (0.069)	-0.029 (0.085)		0.028 (0.081)	0.027 (0.093)
Manual		-0.147 (0.156)	-0.293* (0.150)		-0.050 (0.159)	-0.132 (0.159)		0.015 (0.191)	-0.068 (0.189)		0.004 (0.124)	0.025 (0.142)
PDM		0.350*** (0.028)	0.340*** (0.026)		0.361*** (0.023)	0.359*** (0.012)		0.345*** (0.020)	0.338*** (0.020)		0.412*** (0.021)	0.412*** (0.017)
Good pay		-0.285*** (0.067)	-0.245*** (0.056)		-0.105* (0.059)	-0.109 (0.063)		-0.124** (0.061)	-0.165*** (0.065)		-0.039 (0.061)	-0.074 (0.058)
Pleasant people		0.087 (0.107)	0.095 (0.125)		0.075 (0.059)	0.135* (0.078)		-0.062 (0.083)	0.074 (0.069)		0.155 (0.090)	0.202** (0.085)
Job security		0.243*** (0.082)	0.273*** (0.068)		0.181*** (0.066)	0.114 (0.095)		0.215* (0.124)	0.136 (0.127)		0.137 (0.148)	0.159 (0.152)
Good hours		-0.006 (0.060)	-0.033 (0.061)		-0.156*** (0.050)	-0.114** (0.057)		-0.043 (0.060)	-0.035 (0.050)		-0.165** (0.082)	-0.193** (0.076)
Use initiative		0.004 (0.076)	0.090 (0.056)		-0.021 (0.046)	0.027 (0.057)		-0.048 (0.070)	0.010 (0.081)		-0.209*** (0.078)	-0.125** (0.060)
Achieve something		0.072 (0.067)	0.045 (0.081)		0.083 (0.086)	0.103 (0.090)		0.112 (0.098)	0.109 (0.094)		0.031 (0.084)	0.038 (0.086)
Interesting work		0.082 (0.086)	0.099 (0.093)		0.006 (0.061)	-0.023 (0.057)		0.054 (0.042)	0.034 (0.053)		0.042 (0.091)	0.059 (0.097)
Task knowledge		0.004 (0.079)	-0.022 (0.082)		0.0061 (0.056)	0.053 (0.055)		0.024 (0.097)	-0.095 (0.104)		0.235*** (0.093)	0.170** (0.082)

Traditional vs secular-rational												
Confident in church			0.108*** (0.035)			0.131*** (0.045)			0.124*** (0.048)			0.173*** (0.059)
Divorce is never justifiable			0.029 (0.044)			0.120*** (0.023)			0.021 (0.035)			0.051 (0.062)
Always love and respect ones parents			0.067* (0.037)			0.098*** (0.034)			0.153*** (0.040)			0.100** (0.040)
Believes in hell			-0.017 (0.043)			-0.023 (0.047)			0.0003 (0.035)			0.014 (0.059)
Survival vs self-expression												
Homosexuality is never justifiable			0.121*** (0.042)			0.006 (0.037)			0.163*** (0.051)			-0.006 (0.064)
Tolerance and respect are unimportant to teach at home			0.080*** (0.025)			0.020 (0.032)			0.005 (0.021)			-0.016 (0.027)
Would never sign a petition			0.123*** (0.032)			0.052*** (0.019)			0.071** (0.034)			-0.005 (0.044)
Have to be careful when trusting people			-0.024 (0.032)			-0.082** (0.032)			-0.063 (0.043)			-0.005 (0.049)
Child needs both parents to be happy			0.043 (0.028)			-0.055* (0.032)			0.049 (0.037)			0.030 (0.036)
When job satisfaction = 1	-3.842** (0.317)	-2.858** (0.279)	-2.784** (0.344)	-5.581** (0.518)	-4.309** (0.658)	-4.099** (0.724)	-5.435** (0.295)	-4.458** (0.414)	-4.601** (0.370)	-5.722** (0.483)	-3.993** (0.611)	-4.159** (0.647)
= 2	-2.473** (0.331)	-1.497** (0.243)	-1.369** (0.302)	-3.854** (0.215)	-2.547** (0.258)	-2.356** (0.292)	-4.557** (0.443)	-3.577** (0.446)	-3.787** (0.403)	-4.676** (0.366)	-2.966** (0.430)	-3.047** (0.417)
= 3	-1.874** (0.286)	-0.894** (0.227)	-0.751** (0.274)	-3.192** (0.221)	-1.829** (0.290)	-1.569** (0.357)	-3.939** (0.425)	-2.949** (0.434)	-3.125** (0.406)	-3.877** (0.361)	-2.122** (0.427)	-2.206** (0.419)
= 4	-1.319** (0.285)	-0.279 (0.255)	-0.107 (0.320)	-2.450** (0.171)	-1.039** (0.260)	-0.815** (0.326)	-3.380** (0.448)	-2.342** (0.472)	-2.528** (0.432)	-3.207** (0.343)	-1.415** (0.403)	-1.467** (0.389)
= 5	-0.628** (0.267)	0.501** (0.235)	0.656** (0.313)	-1.772** (0.164)	-0.288 (0.274)	-0.078 (0.358)	-2.681** (0.445)	-1.580** (0.461)	-1.789** (0.420)	-2.581** (0.336)	-0.721 (0.409)	-0.789** (0.400)
= 6	0.021 (0.265)	1.275** (0.270)	1.448** (0.344)	-1.085** (0.164)	0.506 (0.265)	0.683** (0.342)	-1.943** (0.454)	-0.752 (0.473)	-0.944** (0.441)	-1.928** (0.315)	0.029 (0.392)	-0.041 (0.384)
= 7	0.689** (0.259)	2.056** (0.261)	2.247** (0.336)	-0.413** (0.178)	1.295** (0.277)	1.490** (0.361)	-1.092 (0.427)	-0.217 (0.439)	0.059 (0.390)	-1.106** (0.322)	0.986** (0.434)	0.897** (0.437)
= 8	1.614** (0.262)	3.094** (0.249)	3.319** (0.319)	0.532** (0.191)	2.394** (0.301)	2.596** (0.401)	-0.016 (0.432)	1.423** (0.441)	1.323** (0.392)	-0.013 (0.345)	2.279** (0.481)	2.204** (0.487)
= 9	2.585** (0.275)	4.187** (0.300)	4.404** (0.361)	1.630** (0.165)	3.627** (0.306)	3.830** (0.378)	1.029** (0.471)	2.568** (0.477)	2.475** (0.418)	1.241** (0.336)	3.650** (0.501)	3.598** (0.515)
=10	4.327** (0.442)	5.926** (0.362)	6.066** (0.405)	3.065** (0.334)	5.113** (0.449)	5.358** (0.557)	2.833** (0.534)	4.482** (0.491)	4.281** (0.513)	2.986** (0.573)	5.440** (0.716)	5.396** (0.753)
Pseudo R-square	0.006	0.061	0.064	0.003	0.056	0.060	0.004	0.049	0.054	0.003	0.059	0.061
Sample size	5363	4597	3128	7845	7445	5295	6348	6043	4309	6281	5983	4868

Note: Standard errors adjusted for clusters of country affiliations. Control variables: Female, Non-married or widowed, Low household income, Full-time and Professionals. ***, **, and * denotes significance at 1 percent, 5 percent and 10 percent levels, respectively.

Table 3: Odds ratios of cultural values

Variable	1981	1990	1999	2008
Traditional vs secular-rational				
Confident in church	1.114***	1.140***	1.132***	1.188***
Divorce is never justifiable	1.029	1.128***	1.021	1.052
Always love and respect ones parents	1.069*	1.103***	1.165***	1.106**
Believes in hell	0.983	0.977	1.000	1.014
Survival vs self-expression				
Homosexuality is never justifiable	1.128***	1.006	1.177***	0.994
Tolerance and respect are unimportant to teach at home	1.083***	1.020	1.005	0.984
Would never sign a petition	1.130***	1.053***	1.074**	0.995
Have to be careful when trusting people	0.976	0.921**	0.939	0.995
Child needs both parents to be happy	1.044	0.946*	1.050	1.030
Pseudo R-square	0.064	0.060	0.054	0.061
<i>Sample size</i>	3128	5295	4309	4868

Note: All socio-demographic and work-related characteristics also included, but not reported here.
 ***, **, and * denotes significance at 1 percent, 5 percent and 10 percent levels, respectively.

Endnotes:

- ⁱ Clan typologies are comprised of attributes such as cohesiveness, participation, teamwork and a sense of family whereas adhocracy typologies are comprised of attributes such as entrepreneurship, creativity and adaptability (Lund, 2003).
- ⁱⁱ The framework presented by Hofstede (1991) includes the following dimensions: i) power distance, ii) uncertainty avoidance, iii) individualism vs. collectivism, iv) masculinity vs. femininity, and v) long-term orientations vs. short-term orientation.
- ⁱⁱⁱ Cultural values were parameterised using principal component analysis (Traditional: Views on the importance of work and religion, political engagement and child-parent ties; Survival: Views on tolerance and respect, interpersonal trust and family values).
- ^{iv} Cultural domains represented by several variables (Traditional: importance of work, religion and family/friends, political engagement and child-parent ties; Survival: tolerance and respect interpersonal trust, job security and family values).
- ^v Individualistic cultural values promote the welfare, interests and goals of the individual and his/her core family (Sagie and Aycan, 2003) while collectivist cultural values are ones that advocate membership within communities or large groups and considers the welfare, interests and goals of the group to be more important than that of the individual group member (Sagie and Aycan, 2003).
- ^{vi} The vast majority of extant research makes use of the 3rd or 4th wave of the European Values Study only.
- ^{vii} This includes Belgium, Denmark, France, Germany, Great Britain, Iceland, Ireland, Italy, Malta, Netherlands, Northern Ireland, Spain and Sweden.
- ^{viii} We also adjust standard errors in the empirical analysis for clusters of 13 country affiliations.
- ^{ix} The four categories of occupational status used in this paper (Professionals, Skilled, Less skilled and Manual) correspond to the ISCO-08 classifications of major groups (1 and 2, 3 and 4, 5 to 7, 8 and 9, respectively). See International Labour Organization (2010).
- ^x The models were re-estimated using z-score transformations of ordered categories. The results were qualitatively similar, suggesting a robust result.
- ^{xi} Odds ratios are presented to aid interpretation of the effects of all variables on job satisfaction. Confidence in church and always love and respect one's parents can be interpreted accordingly. However, interpretation of odds-ratio magnitudes for the other cultural values should be strongly discouraged due to their construction using the orthogonalisation process.
- ^{xii} Various analyses of the World Values Survey have found that self-expression values are on the rise throughout all countries for which longitudinal data are available (Welzel, 2010).
- ^{xiii} Data was sourced from the International Social Survey Program (30 countries across the time period 1991 to 2008). See Smith (2012) for further details.