Objectivism and Subjectivism: Cross-National Variation in Values and Domain-Life Satisfaction Relationships

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Summary

There have been many attempts to ascertain the predictors of wellbeing. The goal of this thesis is not to evaluate individual theories but to challenge the assumptions that underlie them. Specifically, this thesis endeavours to determine whether there is evidence of universality in the predictors of wellbeing through an investigation of subjectivism and objectivism. In the former, pro-attitudes and values are thought to determine the predictors of wellbeing; in the latter, "goods" with inherent value are proposed to do so universally. Global life satisfaction and life domain satisfaction were selected to operationalize subjectivism and objectivism, respectively. Cross-national comparisons were selected under the presumption that cultural values are internalized at the individual level. This assumption was validated through analysis of the World Values Survey, which revealed significant cross-cluster and cross-national variation in self-reported domain importance scores (family, friends, leisure time, politics, work and religion). Empirical analysis of both independently collected data and the Eurobarometer revealed similar cross-cluster and cross-national differences in domain-life satisfaction relationships (health, family, social life, personal safety, financial situation, home life and job). It was concluded these findings supported subjectivism: the predictors of wellbeing are not universal, but vary as a function of values.

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1: Introduction to Wellbeing

1.1: Introduction

The aim of this thesis is to address a fundamental question underlying wellbeing research: “what makes a person better off?” Responses to this query have been wide-ranging. In Buddhist teachings, happiness can be achieved only when an individual has eradicated all cravings (Burton, 2002). Aristippus believed that the goal of life was to engage in as much pleasurable activity as possible, even in the direst of circumstances (Irwin, 1991). Thomas Aquinas thought that perfect happiness could only be found through knowledge of God (Kretzmann & Stump, 1993). Here, the goal is not to examine individual theories, but to address the assumptions underlying them. Specifically, the aim is to determine whether there is evidence of universality in the predictors of wellbeing.

1.2: The Philosophy of Wellbeing

Addressing the assumptions underlying wellbeing theories requires a deeper understanding of the philosophies that guide them. Both bottom-up and top-down explanations of individual differences in wellbeing have been proposed. In the former, people begin by "assessing the conditions in their lives and then aggregating across conditions to arrive at an overall evaluation" (Lucas, 2004); in the latter they “first compute a general life satisfaction judgment and then rely on this general feeling when judging more specific domains” (Lucas, 2004). Research indicates that the truth is somewhere in-between the two (Feist, Bodner, Jacobs, Miles, & Tan, 1995; Headey, Veenhoven, & Wearing, 1991; Lucas, 2004; Scherpenzeel & Saris, 1996). There are three major, contemporary philosophies of wellbeing: hedonism, desire, and objectivism, each of which emphasises bottom-up assessments. Hedonism and desire theories are subjective: they rest on the premise that the value of a “good”, and its relationship with

wellbeing, is determined by an individual's attitudes. On the other hand, objectivists propose that certain "goods" have inherent value and will improve quality of life independent of attitudes.

To hedonists, wellbeing occurs with the achievement of the greatest balance of pleasure over pain. Prudential hedonism, perhaps the most popular variation, argues that "the more pleasantness one can pack into one's life, the better it will be, and the more painfulness one encounters, the worse it will be" (Crisp, 2016). As only a desired "good" can bring pleasure, its importance to the individual determines its value. Beyond these basic points, there is debate amongst hedonists. According to Bentham (1879), the two determinants of pleasure are duration and intensity. However, as others have noted, there is not a unique sensation that underlies all sources of pleasure. An extension of this criticism concerns equality of sensation. For example, it is difficult to compare the pleasure achieved from reading a piece of literature and the enjoyment of a meal. If offered an existence as a fulfilled human or some barely sentient creature which experiences a significant amount of pleasure, it seems common sense to pick the former, implying that some pleasures have greater inherent value than others (Crisp, 2016). This notion violates the primary assumption of hedonism (wellbeing = net pleasure) and is no longer a subjective theory. Perhaps the strongest argument against simple hedonism is the experience machine; a theoretical device that, once plugged into, provides endless pleasure. Even if the instrument allowed for true choice and interaction with others, many philosophers claim that they would forgo it, once again violating the basic premise of hedonism: that wellbeing is a function of the greatest balance of pleasure and pain (Crisp, 2016).

Desire theory posits that a person's life is going well when they get the things that they want, and wellbeing is the satisfaction of these desires. The most basic version argues that only current desires matter, neglecting the past and future (Heathwood, 2014). In response, theories

that focus on desire-satisfaction across the lifespan have been proposed. Here, desires are ranked globally and their relative importance to the individual is taken into account. While there are criticisms related to defective desires, being improperly informed, and the desire to not be well off, these theories are typically better regarded than hedonism (Crisp, 2016).

Heathwood (2006) argued that hedonism and desire theories are one and the same. To him, net pleasure in hedonism can be understood as follows: "The intrinsic value of a life for the one who lives it = the sum of the values of all the instances of intrinsic attitudinal pleasure and pain contained therein." Here, the attitude an individual has towards a "good" determines its ability to produce pleasure and pain. According to Heathwood (2006), desire theories rest on the same premise: "the intrinsic value of a life for the one who lives it = the sum of the values of all the instances of intrinsic attitudinal pleasure and pain contained therein." These summaries are nearly identical, and Heathwood (2006) proposed that the attitudinal pleasure of hedonism is equivalent to the subjective desire satisfaction of desire theories. Assuming his argument is correct, these theories can be understood as subjectivism: that the predictors of wellbeing are a function of an individual's values.

To objectivists, certain "goods" with inherent value will improve a person's quality of life independent of their attitudes: they are universal predictors of wellbeing. Though basic human needs are thought to determine prudential goodness, there has been debate concerning which "goods" are inherently valuable; a commonly cited criticism of objectivism. Doyal and Gough (1991) noted 11 objective markers of wellbeing: "Adequate nutritional food and water, adequate protective housing, non-hazardous work and physical environments, appropriate healthcare, security in childhood, significant primary relationships, physical and economic security, safe birth control and childbearing, and appropriate basic and cross-cultural education."

Others have fixated on “moral goodness, rational activity, the development of one’s abilities, having children and being a good parent, knowledge and the awareness of true beauty” (Varelius, 2004).

Accepting the argument proposed by Heathwood (2006), there are two theories of wellbeing. Subjectivism proposes that the predictors of wellbeing vary as a function of values, while objectivists claim that certain “goods” with inherent value will do so universally: it is this distinction that will be addressed in this thesis. Empirical investigation of this issue requires the selection of appropriate psychological conceptualizations of wellbeing.

1.3: Psychological Conceptualizations of Subjective Wellbeing

Though there are many competing psychological conceptualizations of subjective wellbeing, perhaps the most commonly cited components are life satisfaction, happiness, and positive and negative affect. Diener, Emmons, Larsen, and Griffin (1985) noted that “life satisfaction refers to a cognitive, judgmental process" wherein an individual forms a global assessment of the quality of their life, according to their chosen criteria. Individuals use their own standards when forming satisfaction judgements.

In the context of wellbeing, positive and negative affect are two dimensions which can be understood as the frequency and degree to which an individual experiences emotion. The former refers to the extent to which "a person feels enthusiastic, active and alert"; individuals with high levels of positive affect will be experience "high energy, full concentration, and pleasurable engagement” (Watson, Clark, & Tellegen, 1988). On the other hand, negative affect is thought to be a state of distress, characterised by "aversive mood states, including anger, contempt, disgust, guilt, fear, and nervousness”; low levels are associated with calmness and serenity (Watson et al., 1988).

Though these constructs are relatively straightforward, this cannot be said of happiness. Oishi, Graham, Kesebir, and Galinha (2013) noted that defining the concept has been difficult, despite decades of investigation. One of the more commonly cited definitions is a balance of positive and negative affect, derived from the concept of Eudemonia as proposed by Aristotle. However, Ryff and Singer (2008) argued that this is a mistranslation, instead suggesting "the idea of striving toward excellence based on one's unique potential." Further complicating matters are varying culture-bound definitions. Historically, happiness was seen as experiencing favourable external circumstances, particularly in East Asian nations. In the modern Western World, focus has shifted to positive individual feelings (Oishi et al., 2013).

One commonly held belief is that wellbeing is a combination of these components. For example, Diener, Emmons, Larsen & Griffin (1985) proposed it to be a balance between life satisfaction, positive and negative affect. Regardless, the constructs addressed in this thesis will be chosen for theoretical reasons. With an understanding of the psychological conceptualizations of wellbeing, determining which components should be operationalized to assess the respective merits of subjectivism and objectivism can commence.

1.4: A Methodological Translation

First, the use of an objective conceptualisation of wellbeing as an outcome variable is inappropriate as it assumes that certain “goods” have inherent value and ignores alternatives. If objectivism is correct, then “goods” with intrinsic value will universally predict subjective conceptualizations of wellbeing. Here, life satisfaction must be addressed. As noted in the previous section, it is an individual's cognitive evaluation of the quality of their life. Accepting the argument put forth by Heathwood (2006) (Section 2.2), subjectivism can be reduced to the premise that a person's life is better off when their desires are satisfied. As such, the best way to

address subjectivism is through life satisfaction, i.e. the degree to which an individual's desires are satisfied.

Objectivism is more complex. As noted in the previous section, there is little agreement when it comes to prudential goodness. A theme underlying these theories is ubiquity: universal aspects of the human condition, such as needs, determine value. The most parsimonious way to deal with this issue is an examination of domain satisfaction. If essential "goods" (family, friends, finances, etc.) do not predict wellbeing universally it seems unlikely that others do. Given this, the relative merits of subjectivism and objectivism can be assessed through an examination of domain-life satisfaction relationships. Implicit in this conceptualization is the need to control variables which might influence value priorities. If basic needs determine which "goods" have inherent value, then situational factors capable of influencing their prioritization must be taken into account. Of particular relevance here are basic socio-demographic factors, which could impact the saliency of these "goods". For example, employment will effect an individual's basic living conditions while their relationship status might influence their social needs. If these factors are neglected then any potential variation in domain-life satisfaction relationships could be explained by temporary situational factors, limiting conclusions that can be drawn about universality in the predictors of wellbeing.

Though some might argue that this approach is too narrow, it is important to consider that in certain populations, life satisfaction is strongly correlated with several proposed components of wellbeing. These include, but are not limited to, happiness (Gamble & Gärling, 2012; Nemati & Maralani, 2016; Piccolo, Judge, Takahashi, Watanabe, & Locke, 2005); positive and negative affect (Diener et al., 1985; Headey, Kelley, & Wearing, 1993), and anxiety and depression (Arrindell, Meeuwesen, & Huyse, 1991; Ghazwin et al., 2016; Headey et al., 1993). Given this,

conclusions can be generalized to wellbeing as a whole. From here, it becomes a question of determining how to address this issue empirically.

1.5: Objectives

As subjectivists posit that an individual is better off when their desires are satisfied, life satisfaction will be used to assess wellbeing. Satisfaction with basic domains (family, friends, finances, etc.) will be used to determine whether the “goods” that objectivists propose to have inherent value predict wellbeing universally. Variation in domain-life satisfaction relationships supports subjectivism, while universality supports objectivism. The assessment of these philosophies will allow for conclusions to be drawn about universality in the predictors of wellbeing.

As subjectivists propose that the predictors of wellbeing are a function of values, cross-cultural comparisons will be used to address this issue. Tylor (1871) described culture as "that complex whole which includes knowledge, belief, art, morals, law, custom and any other capabilities and habits acquired by man as a member of society." It is labelled as a single factor here because, methodologically, it is simple to differentiate between people on the basis of cultural background. Amongst the many individual differences tied to culture are values (Gudykunst et al., 1996). While they will be discussed in greater detail in the ensuing chapter, here it is sufficient to note that they can be considered equivalent to the pro-attitudes discussed in the previous sections. As national borders are perhaps the simplest way to differentiate between cultural groups, cross-national comparisons will be used to compare domain-life satisfaction relationships.

With this in mind, the first step, aside from examining values in greater detail, is to address past literature to determine whether there is evidence of cross-national variation in

domain-life satisfaction relationships and other predictors of wellbeing. The results of these reviews will inform the empirical chapters of this thesis, allowing for conclusions to be drawn about subjectivism, objectivism and universality in the predictors of wellbeing.

2: Review of Values and Wellbeing Research

2.1: Introduction

The goal of this thesis is to address universality in the predictors of wellbeing through the assessment of subjectivism and objectivism. While the former emphasizes the importance of pro-attitudes and values, the latter proposes that the predictors of wellbeing are universal. In the previous chapter it was determined that this issue would be addressed through a cross-national investigation of domain-life satisfaction relationships. As the distinction underlying these approaches is rooted in values, this chapter will begin by determining how they should be conceptualized in this thesis, assessing their relationship with wellbeing and examining cross-national differences in value priorities. From here, pertinent literature will be reviewed. First, cross-national investigations of self-esteem and life satisfaction will be examined. Though the rationale will be discussed in section 2.3, here it is sufficient to note that, in certain populations, self-esteem is a powerful predictor of wellbeing. Finally, previous cross-national investigations of domain-life satisfaction relationships will be systematically reviewed in order draw conclusions about subjectivism and objectivism, identify weaknesses and shape the empirical research of this thesis.

2.2: Values

2.2.1: Introduction.

The key premise underlying subjectivism is that "something can benefit a person only if he wants it, likes it, cares about it, or it otherwise connects up in some important way with some positive attitude of his" (Heathwood, 2014). These positive attitudes can be understood as values, and this section will review several conceptualizations while better defining them. Additionally, two pertinent issues will be discussed. First, as subjectivism rests on the premise that the

predictors of wellbeing are a function of values, it is crucial to determine whether there is empirical evidence affirming this relationship. Second, as the goal of this thesis is to examine domain-life satisfaction relationships cross-nationally, it is important to establish similar variation in values. Without this evidence, subjectivism seems an unlikely explanation for any potential differences in the predictors of wellbeing.

2.2.2: Differing value systems.

Understanding values necessitates a brief review of the many models that have been put forth over the years. Vernon and Allport (1931) proposed a value system based on the work of Spranger (1928). This model contains six distinct, universal values: the theoretical (discovery of truth); the economic (useful/utilitarian); the aesthetic (form and harmony); the social (various types of love); the political (power); and the religious (unity).

Kluckhohn and Strodtbeck (1961) believed that five universal problems were relevant to values: the aspect of time that should be focused on (past, present or future); the relationship between humanity and its natural environment (mastery, submission or harmony); how individuals should relate to others (hierarchically, as equals or according to individual merit); the prime motivation for behaviour (to express one's self [“being”], to grow [“being-in-becoming”] or to achieve); and the nature of human nature (good, bad [”evil”] or a mixture). They believed that the answers to these questions determined a society’s, and therefore each individual’s, value orientation.

Rokeach (1973) proposed two different types of values: terminal and instrumental. Terminal values are goals that a person would like to accomplish in his or her lifetime i.e. desirable end-states of existence. Examples of terminal values include self-respect, pleasure, and national security. Instrumental values refer to modes of behaviour that are preferable insofar as

they can help an individual achieve their terminal values. Examples of instrumental values include self-control, honesty, and love.

According to Schwartz (1992), there are ten distinct, universal values: stimulation, self-direction, universalism, benevolence, conformity, tradition, security, power, achievement and hedonism. These values fall under four different dimensions: openness to change, self-transcendence, conservation, and self-enhancement. Schwartz (1992) also proposed that these values operate in a circular structure, influencing one another due to related motivations. As he later noted, the "closer any two values in either direction around the circle, the more similar their underlying motivations; the more distant, the more antagonistic their motivations" (Schwartz, 2012).

More recently, Gouveia, Milfont, and Guerra (2014) proposed a theory of values based on human needs and goals. The two types of needs (thriving and survival) and three types of goals (personal, central and social) determine an individual's core values: excitement, suprapersonal, interactive, promotion, existence and normative. As noted, many models have been put forward over the years, and this is only a small sample. Though this review provided necessary background information, it did not identify what values are, and this will be addressed in the ensuing section.

2.2.3: Defining values.

While the previous section provided context for understanding values, it did not define them. Schwartz (2012) noted that six features are shared across the writings of different theorists: values are beliefs; refer to desirable goals; transcend specific actions and situations; serve as standards or criteria; are ordered by importance; and the relative importance of multiple values guides action. Expanding on these points, "values are beliefs linked inextricably to affect.": once

they have been activated, feelings are immutably bonded to them. Secondly, "values refer to desirable goals that motivate action": if something is important to an individual, then he or she will be motivated to behave in ways that will help him or her to achieve appropriate goals. Thirdly, "values transcend specific actions and situations": an individual's values will be ubiquitous and not limited to a narrow range of scenarios. Fourthly, "values serve as standards or criteria": they allow individuals to determine quality, what is right and what is worth doing. Fifthly, "values are ordered by importance relative to one another": an individual's values are an ordered system. Finally, "the relative importance of multiple values guides action": prioritisation of one value will inversely impact another.

Importantly, this description is not limited to one system as these are "features of all values" (Schwartz, 2012). Furthermore, there is an underlying theme, which unifies these six points: importance. Schwartz (2012) noted that “when we think of our values, we think of what is important to us in life.” For the purposes of this thesis, values can be understood as the things that are important to a person. As proponents of subjectivism argue that values determine the predictors of wellbeing, they are crucial to understanding the distinction between it and objectivism.

2.2.4: Values and wellbeing.

As the goal of this thesis is to address the respective merits of subjectivism and objectivism, it is crucial to determine whether there is a relationship between values and wellbeing. In a comprehensive review, Maio (2016) drew two conclusions that are of particular relevance to this thesis. The first was that “we experience positive emotions and well-being from ideas, activities, and events that help to promote our values.” An example of this is given by, Oishi, Diener, Suh, and Lucas (1999a) which involved a diary study, showing that values

moderated the relationships between daily domain-success and life satisfaction; the impact of daily events on wellbeing was heavily influenced by achievement and benevolence values. Similarly, Sagiv and Schwartz (2000) assessed the impact that congruence between personal value priorities and social environment had on wellbeing. To do so, they collected data from businesses administration and psychology students. The former emphasised power and control, while the latter put greater importance on benevolence. As hypothesised, power values were positively and negatively related to life satisfaction amongst business and psychology students respectively; these were the value congruent and incongruent conditions. Other researchers have drawn similar conclusions. For example, Diener and Fujita (1995) found that resources (money, family support, social skills, intelligence) were more strongly associated with subjective wellbeing when they were congruent with personal strivings in college students. After analysing the theory of universal values (Schwartz, 1992) and satisfying activities, Oishi et al. (1999a) concluded that "Value-congruent domain satisfaction is more strongly related to global life satisfaction than is value-incongruent domain satisfaction."

Second, Maio (2016) noted that "emotional reactions to our own violations of a value depend on the relative importance of the value to the self and the value's role as a self-guide." In other words, the impact that value incongruent actions have on our wellbeing is dependent upon the importance of the value in question. Though somewhat tangential given the focus on emotions, Maio (2010) described an experiment which makes this clear. First, participants' central values were identified. They then wrote an essay that opposed one of these values. Regardless of whether they were told that their composition would be made public, participants experienced increased dejection in this condition; significantly, more than those whose papers opposed a periphery value. Ultimately, both points are facets of the same conclusion: the

importance of a value determines the impact that associated events and actions will have on wellbeing. With evidence supporting the main premise of subjectivism, focus can shift to cross-national variation in values.

2.2.5: Cross-national variation in values.

The previous section provided evidence of the relationship between values and wellbeing. From here, it is crucial to determine whether values vary cross-nationally. Without this evidence, any potential cross-national variation in domain-life satisfaction relationships is unlikely to be explained by subjectivism. As noted in section 2.2.2, many value systems have been proposed. Here, a small sample of the literature that has examined them cross-nationally will be addressed.

Perhaps the most frequently examined system in modern research is the Theory of Basic Values (Schwartz, 1992), and the same is true of cross-national work. Schwartz (1999) examined seven cultural values (Conservatism versus Intellectual and Affective Autonomy; Hierarchy versus Egalitarianism; and Mastery versus Harmony) across 49 nations, finding meaningful groupings based on perceived similarities and differences. Though Schwartz and Bardi (2001) focused on similarities when analysing data from 13 countries, they began their conclusion by stating that "the current study, like past research, reveals a great deal of variation in the importance of individual values both within groups and across societies."

Analysing longitudinal data sampled from 50 countries, Hofstede (1983) noted national differences in four value dimensions: power distance, uncertainty avoidance, individualism versus collectivism, and masculinity versus femininity. A meta-analysis performed by Taras, Kirkman, and Steel (2010) revealed further cross-national differences. A different approach was taken by Inglehart and Welzel (2005), who used data from the World Values Survey to develop a cultural map using two broad value dimensions: Traditional/Secular-rational and Survival/Self-

expression. The former "reflects the contrast between societies in which religion is very important and those in which it is not" while the latter refers to the "unprecedented wealth that has accumulated in advanced societies during the past generation" and the implications that this has for individual needs. The cross-national differences they found were supported by past research (Inglehart & Baker, 2000) and verified through analysis of subsequent waves of the World Values Survey (Inglehart & Welzel, 2010)

Though this is but a small sample of the literature, it is clear that, regardless of the model used, there is evidence of cross-national variation in values. With this information, and that provided in the preceding sections, the intersection between values, culture, and wellbeing can be addressed.

2.2.6: Conclusion: the intersection between values, culture, and life satisfaction.

As noted in the introduction to this section, subjectivists argue that something can benefit a person only if it is important to them (Heathwood, 2014). While values have been conceptualised in a variety of ways, for the purposes of this thesis they can be understood as the things that are important to an individual; subjectivists argue that they determine the predictors of wellbeing. The goal of this thesis is to assess the respective merits of subjectivism and objectivism through a cross-national investigation of domain-life satisfaction relationships: variation supports subjectivism, while ubiquity supports objectivism. As cultural values vary, cross-national comparisons are the most parsimonious way to assess these differences.

The previous section made it clear that values vary cross-nationally. These differences can be better understood by calling on the concept of the social organism; the idea that society is one single, living creature (MacLay, 1990). Cultures evolve to meet the demands of their environment in the same way as a species. As a result, cultural values vary. Though

modernization does effect these values, their origins leave a lasting impact (Inglehart & Baker, 2000). In general, socialization can be understood as "the process by which an individual learns and internalizes the rules and patterns of behaviour of her/his culture". However, more relevant here is internalization, which describes the process at an individual level: "taking ideas, behaviour patterns, beliefs, and attitudes of other people and making them part of the self." Though there is debate about the mechanisms that underlie these processes, there is a general agreement that they do occur. This is why cross-national comparisons are being used to address subjectivism and objectivism: cultural values vary, and they are internalized at the individual level. If subjectivism is accurate, these differences will be reflected in domain-life satisfaction relationships.

To proceed with an empirical investigation, several pieces of evidence were required. First, it was crucial to determine whether there was a documented relationship between wellbeing and values. Second, it was important to demonstrate cross-national differences in values. Without this evidence, some other factor would better explain any potential variation in domain-life satisfaction relationships. As these requirements were met in sections 2.2.4 and 2.2.5, past research can be reviewed in order to shape the empirical chapters of this thesis.

2.3: Cross-National Variation in Self-Esteem-Life Satisfaction relationships

2.3.1: Introduction.

The literature discussed in the previous section supported subjectivism, indicating that differences should exist in domain-life satisfaction relationships. If this is the case, then they should also be present in other predictors. While numerous variables have been found to predict wellbeing, one particular group has shown consistent, powerful relationships: positive personality traits. A meta-analysis of 197 distinct samples performed by DeNeve and Cooper

(1998) revealed that positive personality traits played a significant role in predicting wellbeing through affect, relationship-enhancing traits, and locus of control. Similarly, Park, Peterson and Seligman (2004) noted that hope, zest, gratitude, love and curiosity were strongly associated with life satisfaction. Others have discovered comparable relationships when examining zest, curiosity, gratitude and optimism/hope (Brdar & Kashdan, 2010).

More recently, Williams (2014) found that self-efficacy, self-esteem, and optimism predicted wellbeing above and beyond stressors, social support, and negative coping; variables which are also powerful predictors of wellbeing (Mark & Smith, 2012). Self-esteem can be defined as “the degree to which one’s attitude toward, opinions about, and evaluation of one’s own body, history, mental processes, and behaviour are positive.”; self-efficacy as “people’s beliefs in their ability to influence events that affect their lives.” Finally, optimism is “a tendency to expect the best possible outcome and to dwell on positive aspects of situations” (Matsumoto, 2009)

These findings should come as little surprise: as noted in section 1.2, both top-down and bottom-up processes play a role in wellbeing. DeNeve (1999) suggested that certain personality traits can serve as "enduring dispositions that lead directly to current positive and negative affective states." Similarly, Williams (2014) theorised that self-esteem, optimism, and self-efficacy can “be said to represent positive attributions related to one’s self, one’s future, and one’s abilities respectively." These traits describe a top-down approach towards wellbeing that could influence both domain and global life satisfaction judgements. As such, the decision was made to review studies that had investigated the relationships between positive personality traits and life satisfaction cross-nationally.

2.3.2: Methods.

The aim of this section was to review research that has examined positive personality traits (self-esteem, self-efficacy, optimism) and life satisfaction cross-nationally. Preliminary investigation revealed that the majority of the research had addressed self-esteem. As such, its relationship with life satisfaction became the primary interest. There were three requirements for inclusion. First, life satisfaction had to be used as an outcome variable. Second, self-esteem had to be used as an input variable. Finally, the research had to be cross-national. The search terms were as follows: ("life satisfaction" OR "satisfaction with life" OR “well being”) AND ("self esteem" OR "self satisfaction" OR "satisfaction with self") AND ("cross cultural" OR "cross national"). Scopus, PsycINFO, and Web of Science were searched. Article title, abstract, and keywords were searched for Scopus and PsycINFO; only title and topic could be searched for Web of Science.

2.3.3: Results.

The Scopus, PsycINFO and Web of Science searches revealed 102, 65, and 101 articles, respectively. As the search terms were broad, many of the articles only mentioned them in passing. Of those that did address the relationship between self-esteem and wellbeing, there were two frequent causes for exclusion. The first was a different conceptualization of wellbeing, such as happiness (Yuki, Sato, Takemura, & Oishi, 2013). Second, and the most common, was a lack of cross-national comparisons (Ayyash-Abdo & Alamuddin, 2007; Ayyash-Abdo & Sánchez-Ruiz, 2012; S. X. Chen, Cheung, Bond, & Leung, 2006). Those that did not examine the relationship between self-esteem and life satisfaction cross-nationally were excluded. Articles that incorporated a statistical analysis examining this relationship were included, even if it was of secondary interest to the authors. Here, studies are grouped based on the primary analytical technique used.

2.3.3.1: Correlational analyses.

In the broadest correlational analysis, Diener and Diener (1995) investigated the relationship between self-satisfaction and life satisfaction using data drawn from 49 universities across 31 countries. They found that correlations between satisfaction with self and life satisfaction were significantly larger in individualistic countries, with correlations ranging from .07 to .65; they were non-significant for India and Cameroon. Further evidence of variation in the self-esteem-life satisfaction relationship comes from Kwan, Bond, and Singelis (1997), who addressed this issue using 378 college students from the United States and Hong Kong. They found Pearson correlations of .54 and .38, respectively. Similarly, S.-M. Kang, Shaver, Sue, Min, and Jing (2003) examined the relationship between self-esteem and life satisfaction using data from 164 European American, 148 Asian American, 175 Korean and139 Chinese participants. They found Pearson correlations of .64, .71, .58 .43, respectively. They also reported standardised path coefficients from their tested model: .68 (European Americans), .65 (Asian Americans), .46 (Koreans), .32 (Chinese). Finally, Hutz, Midgett, Pacico, Bastianello, and Zanon (2014) addressed this relationship using 179 university students from the United States, and 499 from Brazil. In the American Sample, self-esteem correlated with life satisfaction at .53; for Brazilians it was .43.

2.3.3.2: Regression analyses.

Similar evidence of cross-national variation comes from regression analyses. Fagerström et al. (2007) analysed data from the European Study of Adult wellbeing, which contained data from 7699 people in six European countries: the Netherlands, Luxemburg, Italy, Austria, the United Kingdom and Sweden. A binary logistic regression revealed that self-esteem was related to low levels of life satisfaction in each country. Hermann, Lucas, and Friedrich (2008) analysed data from 90 American and 52 Japanese undergraduates. A hierarchical multiple regression

revealed that self-esteem predicted life-satisfaction more powerfully amongst Americans participants; unstandardized coefficients were .62 and .37, respectively. Uchida, Kitayama, Mesquita, Reyes, and Morling (2008) found similar differences across two studies. In their first, they analysed data from 160 European American, 243 Filipino, and 256 Japanese undergraduate students: they found unstandardized beta weights of .45, .27, and .31, respectively. In their second study they examined data from 56 Americans and 80 Japanese participants. In addition to a cultural interaction effect, regression analysis revealed unstandardized beta coefficients of .31 and .55, respectively. Finally, Yuki et al. (2013) examined this relationship using 87 undergraduates from America and 93 from Japan, finding that self-esteem was a more powerful predictor amongst Americans (unstandardized beta weights of .70 vs. .45). However, they concluded that relationship mobility explained these differences.

2.3.4: Discussion and conclusion.

In general, there was evidence of cross-national variation in self-esteem-life satisfaction relationships, especially when countries that differed in terms of individualism-collectivism were compared. At its core, this spectrum is a distinction between interdependence and independence. Collectivistic cultures are highly interdependent; emphasis is placed on the group, its goals and relationships (Triandis, 2001). This is in contrast to individualistic cultures, in which persons are highly independent: personal goals and achievement are considered to be more important (Triandis, 2001). This value distinction was evident in the results: self-esteem was a more powerful predictor of life satisfaction in individualistic nations.

These differences were particularly apparent in the work of Diener and Diener (1995), who, in examining data from 31 nations, noted that correlations between these variables were stronger in individualistic countries. Similarly, Hermann et al. (2008) found that self-esteem

predicted life satisfaction more powerfully amongst American than Japanese participants. Though Uchida et al. (2008) had comparable findings, they also noted that the correlations between these variables were similar across Filipino and Japanese individuals, demonstrating another important finding: differences in self-esteem-life satisfaction relationships were smaller when countries that were similar in terms of individualism-collectivism were compared. This point is exemplified in the work of Fagerström et al. (2007), who found that self-esteem predicted life satisfaction similarly across six relatively individualistic European nations.

The results of this review indicate variation in self-esteem-life satisfaction relationships. As these associations were more powerful in individualistic nations, these findings support subjectivism and the premise that the predictors of wellbeing vary as a function of values. With this information, cross-national investigations of domain-life satisfaction relationships can be reviewed.

2.4: Cross-National Variation in Domain-Life Satisfaction Relationships

2.4.1: Introduction.

The aim of this thesis is to determine the relative merits of subjectivism and objectivism in wellbeing research through a cross-national investigation of domain-life satisfaction relationships. With an improved understanding of values and evidence of both their cross-national variation and differences in self-esteem-life satisfaction relationships, the next step in addressing this issue is a systematic review of the existing literature, the results of which will be used to shape the empirical investigation of this thesis.

2.4.2: Methods.

As the goal of this section is to review cross-national investigations of domain-life satisfaction relationships, there were four requirements for inclusion. First, the research had to

address life satisfaction as an outcome variable: as noted in the first chapter, it embodies the desire-fulfilment that underlies subjectivism. Second, multiple domain satisfaction scores had to be used as input variables: they represent prudential goodness as proposed by objectivists. An important caveat here is that these "goods" must be addressed in unison as values are ordered by relative importance (Schwartz, 1992) . Because of this, addressing domains in isolation artificially increases their importance. Third, the research had to be cross-national: as noted in the introduction, values are, to a degree, culturally bound and the most efficient way to address this distinction is through cross-national comparisons. Finally, the population had to be normal as the defining traits of an abnormal population could shift their value priorities, making variation in the predictors of wellbeing less likely. The search terms were as follows: ("life satisfaction" OR "satisfaction with life") AND ("domain satisfaction" OR "life facet satisfaction" OR "domain specific satisfaction") AND ("cross-cultural" OR "cross-national"). All fields were searched for Google Scholar, Scopus and PsycINFO. Any studies that addressed multiple domain-life satisfaction relationships cross-nationally using normal populations were included.

2.4.3: Results.

The Google Scholar, Scopus and PsycINFO searches revealed 1070, 213 and 125 articles, respectively. Five relevant articles were identified from the Google Scholar results. Relevance here is described as addressing the relationship between multiple domain satisfaction scores and life satisfaction cross-nationally. Neither Scopus or PsycINFO revealed any additional papers. Due to the relatively few studies, all are described in this section. Searching all fields meant that many of the studies were irrelevant. Of those that addressed the relationship between domain satisfaction and wellbeing, there were three common causes for exclusion. First, the research was not cross-national (Ip & Cheung, 2014; Leung, Ha Cheung, & Liu, 2011; Loewe, Bagherzadeh,

Araya-Castillo, Thieme, & Batista-Foguet, 2014). Second, domains were addressed in isolation; job satisfaction was particularly common (Bowling, Eschleman, & Wang, 2010; Georgellis & Lange, 2012). Finally, a different wellbeing outcome was used. (W.-c. Chen, 2012; Lin, 2016)

While examining satisfaction with family, school, living environment and the self, Park and Huebner (2005) noted substantial differences as they related to life satisfaction in American and Korean adolescents. Using chi-square values to assess goodness of fit, they concluded that the best model allowed for between-group differences in the predictive power of self and family satisfaction. Accordingly, they found that self-satisfaction was a stronger predictor of life satisfaction in American adolescents. While school satisfaction predicted life satisfaction in the Korean sample, this was not the case for American students. Family and living environment satisfaction predicted life satisfaction in both samples with no significant differences.

Using data drawn from 49 universities across 31 countries, Diener and Diener (1995) investigated the relationships between self, family, friends, finance and life satisfaction. Analysing the data by gender, they found significant variation in domain-life satisfaction relationships with the only universal correlate being friendship satisfaction amongst men. Amongst women, examples of non-significant relationships include self-esteem (India), finances (Israel), family (Norway) and friends (Japan). Amongst men, examples include self-esteem (Bangladesh), New finances (New Zealand) and family (Bahrain).

In a more expansive study, Mallard, Lance, and Michalos (1997) examined the relationships between satisfaction with 11 domains and life across 24 countries using data collected from university students. Living partner (24/24) was the only domain that predicted life satisfaction universally: health (22/24), finances (18/24), family relations (21/24), paid employment (18/24), friendship (23/24), housing (19/24), recreation (22/24), transportation

(17/24) and education (20/24) did not. The sample may have been biased, as only participants with living partners were included.

Using data from 6,782 college students drawn from 39 countries, Oishi, Diener, Lucas, and Suh (1999b) examined how satisfaction with finances, friends, food, housing, the self and freedom predicted life satisfaction. Developing hypotheses based on Maslow's Hierarchy of Needs, they grouped countries into low, medium and high-income categories. They predicted that while basic needs would be stronger predictors of life satisfaction in lower-income nations, high-level needs, such as self-satisfaction, would be more important in higher-income nations. In the low-income group, financial satisfaction was the only universal predictor of life satisfaction. For medium-income countries, financial and self-satisfaction were the only universal predictors. Finally, amongst high-income countries, self-satisfaction was the only universal predictor. While these differences were in line with their initial hypothesis, the patterns of prediction were quite similar across groups as illustrated by the number of countries in which the domain-life satisfaction relationships were significant. For low income countries, financial (13/13), housing (11/13), foods (7/13), self (10/13) and freedom (8/13); for medium income countries, financial (13/13), housing (10/13), foods (9/13), self (13/13) and freedom (10/13); for high-income countries, financial (11/13), housing (11/13), foods (9/13), self (13/13) and freedom (11/13) predicted life satisfaction.

Finally, Jovanović, Joshanloo, Đunda, and Bakhshi addressed domain-life satisfaction relationships using a sample of 623 undergraduate students from Iran and Serbia. They addressed standard of living, health, achieving in life, personal relationships, safety, community and future security. In the Iranian sample, standard of living, achieving in life, personal relationships and community satisfaction predicted life satisfaction. These relationships were also significant

amongst the Serbian participants, with the exception of personal relationships. Repeating these analyses while separating genders revealed additional differences: for Iranian men, standard of living, community and future security predicted life satisfaction, while standard of living and achieving in life did so amongst Serbian women. For Iranian men, life satisfaction was predicted by standard of living, achieving in life and personal relationships but only standard of living and achieving in life for Serbian men.

2.4.4: Discussion and conclusion.

Subjectivists argue that the predictors of wellbeing are determined by values while objectivists believe that certain "goods" with inherent value will improve quality of life independent of attitudes. In general, there was evidence of variation in domain-life satisfaction relationships, supporting subjectivism. However, there was evidence of universality in some studies.

Unsurprisingly, the differences were smaller when fewer countries were examined. Park and Huebner (2005) and Jovanović et al. found evidence of universality in domain-life satisfaction relationships while examining two countries. However, the remaining studies took a broader approach, addressing 31(Diener & Diener, 1995), 24 (Mallard et al., 1997) and 39 (Oishi et al., 1999b) nations. Here, the differences were more substantial. Diener and Diener (1995) found that the only universal correlate of life satisfaction was friendship amongst men; Mallard et al. (1997) noted that the only ubiquitous predictor was living partner; Oishi et al. (1999b) found that there were no universal predictors if income grouping was ignored.

There are several potential explanations for this inconsistency. Perhaps the most obvious is that the first studies only addressed two countries, allowing for fewer comparisons. If subjectivism is correct, then individuals with disparate values must be examined if the goal is to

detect variation in domain-life satisfaction relationships. This likely explains the more substantial differences noted in the work of Diener and Diener (1995), Mallard et al. (1997) and Oishi et al. (1999b).

Second, addressing subjectivism and objectivism was not the primary goal of these studies: while universality in domain-life satisfaction relationships was discussed, other factors were being investigated. Mallard et al. (1997) were primarily interested in the directionality of these relationships and the exclusion of individuals who lived alone may have created a biased sample. While this was appropriate for their goals, it is not ideal for addressing universality in domain-life satisfaction relationships. Oishi et al. (1999b) noted that there were universal predictors of life satisfaction when countries were grouped based on income. However, the patterns of prediction were quite similar across clusters, indicating that this method of categorization may have been inappropriate. When income group was ignored, there were no universal predictors of life satisfaction. It is also important to note that these studies made use of student samples, which might be relatively homogenous when compared to their respective national populations (Oishi et al., 1999b)

In short, these findings do lend some support to subjectivism. However, the results of this research are inconclusive, in part due to the surprisingly few studies that have addressed this issue and exacerbated by the minimal focus on universality in domain-life satisfaction relationships. That is the goal of this thesis: to assess the relative merits of subjectivism and objectivism in wellbeing research through an analysis of cross-national variation in domain-life satisfaction relationships. The issues noted in this section will help shape the methodology of this thesis. First, data from multiple countries must be analysed; a comprehensive search is more likely to detect variation, if it exists. Second, as current studies have examined students, a more

representative sample would be preferred; it would allow for greater confidence in generalisation to other populations. Finally, participant exclusion for the sake of a larger number of domains should be avoided as it runs the risk of creating a biased sample.

Beyond these points, which are unique to the research at hand, the work of Oishi et al. (1999b) raises important considerations for control variables. They argued that a hierarchy of needs governs value priorities and domain-life satisfaction relationships by extension. Though they found variation in these relationships, a brief review conducted by Meuleman, Davidov, Schmidt, and Billiet (2012) revealed the affect that socio-demographic variables (age, gender and employment) have on value priorities. While there are multiple explanations for these relationships, their findings make it clear that they must be controlled for if conclusions are to be drawn about subjectivism and objectivism. A failure to take these social-structural variables into account would mean that variation in domain-life satisfaction relationships could be best explained by situational factors; a result that supports objectivism through prudential goodness. However, variation in domain-life satisfaction relationships while controlling for the appropriate variables indicates differences that are a function of the internalization of cultural values, supporting subjectivism. Regardless of the outcome, controlling for these variables is a necessity if the goal is to address subjectivism and objectivism.

If subjectivism is correct and domain-life satisfaction relationships vary, then the values underlying these associations must differ as well. As such, it would be beneficial to determine whether there is evidence of cross-national variation in domain importance: without it, subjectivism seems an unlikely explanation for any potential differences in domain-life satisfaction relationships. The points outlined in the previous paragraph apply to this investigation as well. With these methodological considerations, investigation of cross-national

variation in values and domain-life satisfaction relationships can commence once appropriate data sources have been identified.

2.5: Existing Databases

2.5.1: Introduction.

As noted in section 2.4.4, detecting variation in values and domain-life satisfaction relationships requires an analysis of as many countries as possible. As such, independent data collection would not be feasible due to financial restriction. Fortunately, both are addressed in various multinational surveys. This section will discuss existing databases and assess their limitations in order to determine which are appropriate for use in the empirical chapters of this thesis.

2.5.2: Database selection.

The goal of this section is to determine which databases will be used to analyse cross-national variation in values and domain-life satisfaction relationships. Many multinational databases exist: the Asian, Afro, Latino, Arab, and Eurasia Barometers; Eurobarometer; European Values Study; International Social Survey Program; World Values Survey and the Gallup Poll. Of those that have addressed domain-importance, only the Gallup Poll samples from more countries than the World Values Survey. Regrettably, access costs were prohibitive. As such, the World Values Survey was selected to address cross-national variation in values. Unfortunately, domain-satisfaction is examined less frequently: only certain waves of the Eurobarometer and Eurasia Barometer have included the appropriate questions. The 62.2 Eurobarometer proved to be the best option to address cross-national variation in domain-life satisfaction relationships as it sampled from almost three times as many countries as the Eurasia Barometer.

As wellbeing is not a primary interest in either survey, values and life satisfaction were measured using single-item questions. Given the importance of secondary analyses to this thesis, it became crucial to validate single-item methodology in wellbeing research. An extension of this point is that neither database assesses several wellbeing covariates; of particular importance are the positive personality traits discussed in section 2.3.

2.5.3: Positive personality traits.

As it is pertinent to this discourse, one of the primary problems of the Eurobarometer is that it fails to address several life satisfaction covariates. As noted in section 2.3, self-esteem, self-efficacy, and optimism have been found to predict wellbeing above and beyond stressors, social support and negative coping, which are powerful predictors of wellbeing in their own right (Mark & Smith, 2012). These traits describe a top-down approach towards wellbeing that could influence both domain and global life satisfaction judgements. Given that none of the literature reviewed in section 2.4 addressed these traits, they could explain the cross-national variation that was discussed. As such, self-efficacy, self-esteem and optimism were controlled while addressing cross-national variation in domain-life satisfaction relationships. With this in mind, there is one additional limitation that must be discussed, namely the use of single item life satisfaction measures.

2.5.4: Psychometric properties and analysis of single-item life satisfaction measures.

As noted in section 2.4.2, these surveys use single-item questions to address the pertinent variables. Given that the analysis of the World Values Survey and Eurobarometer will be key pieces of evidence, it is important to validate this approach. Though single items are not as psychometrically robust as multi-item questionnaires, there is evidence supporting both their reliability and validity in wellbeing research. While Michalos and Kahlke (2010) urged caution

when interpreting single-item measures, recent research has painted a more positive picture. Lucas and Donnellan (2012) used longitudinal data from the German Socio-Economic Panel Study, the British Household Panel Study, the Household, Income, and Labour Dynamics in Australia Study, and the Swiss Household Panel Study to address the issue. Controlling for occasion-specific variation, they found that reliable variance ranged from .68 to .74, with a mean of .72. Kobau, Sniezek, Zack, Lucas, and Burns (2010) demonstrated criterion validity in a US sample, reporting a .75 correlation between a single-item measure and the Satisfaction with Life scale. Cheung and Lucas (2014) noted similarly high correlations between single-item measures of life satisfaction and the Satisfaction with Life Scale. They also found that relationships between these measures and theoretically relevant variables (income, education, self-reported health, domain satisfactions, and happiness) were not statistically different from one another, demonstrating construct validity. Taken together, this evidence is compelling. However, given that the conclusions of this thesis will rest upon the secondary analysis of single-item questions, it would be beneficial to further validate this approach through independent empirical analysis.

An additional point of consideration is analysis of these items. Life satisfaction is almost always measured using Likert-type response scales. Regardless of single or multi-item measures, these scales are frequently assessed using parametric methods (see sections 2.3 and 2.4). Developed by Rensis Likert (1932) to assess attitudes, they typically include 5-7 points used by respondents to rate the degree to which they agree/disagree with a statement. In ordinal scales, responses are ranked but distance between them cannot be determined. The wording (strongly agree, often, sometimes, etc.) used by Likert measures means that they fall under this umbrella. There is a great deal of debate as to whether parametric analysis can be performed on Likert type scales, and if so, what conditions must be met.

Perhaps the most commonly cited argument supporting parametric analysis comes from Norman (2010), who addressed three major criticisms: that it cannot be done when sample sizes are small, when samples are not normally distributed, or when Likert scales are used. His primary argument was that the robustness of parametric measures is frequently underestimated, and that the chances of getting "the wrong answer" are much lower than commonly believed. Expanding on this point, he stated that "the numbers don't know where they came from": while caution must be taken when drawing inferences about latent characteristics, confidence can be placed in conclusions about the numbers themselves. Regardless, he returned to the previous argument: parametric methods are robust and produce results similar to those of non-parametric analysis when performed on ordinal measures. He demonstrated this through analysis of his own data in addition to referencing past work. Since the publication of his article, several authors have found similar results (De Winter & Dodou, 2010; Murray, 2013). Given the robustness of parametric analysis, this approach will be taken so that the findings of this thesis can be better compared to past research.

2.5.5: Conclusion.

This section assessed the multinational databases that will be used to address the respective merits of subjectivism and objectivism in wellbeing research. The World Values Survey and Eurobarometer were selected to examine cross-national variation in self-reported values and domain-life satisfaction relationships, respectively. There were two major concerns related to these databases. The first is that the Eurobarometer fails to address positive personality traits, and the second is that both use single-item methodology. The conclusion of this chapter will discuss these points in greater detail.

2.6: Chapter Conclusions

This chapter reviewed both the theory and methodology underlying this thesis. As such, there are several crucial takeaways. The first is values: for the purposes of this thesis, they can be understood as the things that are important to a person; life domains, in this instance. Second, past research revealed that not only are values related to wellbeing, but they vary cross-nationally as well. Taken with the results of the literature reviews, which demonstrated cross-national variation in self-esteem-life satisfaction and domain-life satisfaction relationships, this evidence supports subjectivism. However, these results were not conclusive. This was likely a function of the number of countries that were examined, as differences were greater in more comprehensive studies.

Given financial restrictions, the World Values Survey and Eurobarometer were chosen to address cross-national variation in values and domain-life satisfaction relationships, respectively. However, the Eurobarometer lacks relevant control variables, a problem present in past research as well. Positive personality traits, which represent a top-down approach, were addressed given their robust relationships with wellbeing and their potential to explain variation in domain-life satisfaction relationships. Though past evidence supports the use of single-item questions in wellbeing research, it was also determined that independent, empirical investigation would be used to further validate this methodology as both the World Values Survey and Eurobarometer make use of it. As such, this chapter provided the methodological framework necessary for assessing universality in the predictors of wellbeing through an investigation of subjectivism and objectivism.

3: Single-Items in Wellbeing Research

3.1: Introduction

As noted in the previous chapter, the World Values Survey and Eurobarometer will be used to address cross-national variation in values and domain-life satisfaction relationships. Given that both use a single item methodology, it becomes crucial to validate this approach. Past research has supported both their validity (Cheung & Lucas, 2014; Diener, Inglehart, & Tay, 2013) and reliability (Lucas & Donnellan, 2012) (Section 2.5.4). Despite this, single-item measures still concern some researchers. As such, it is important to provide additional evidence of their psychometric properties.

Single-item measures have been used to assess a wide variety of constructs including job satisfaction (Wanous, Reichers, & Hudy, 1997), readiness to change, (E. C. Williams, Horton, Samet, & Saitz, 2007), medication compliance (Cook & Perri, 2004) and religious orientation (Hettler & Cohen, 1998). Williams (2014) noted that they are frequently used in medical research (rheumatoid arthritis, HIV cancer and multiple sclerosis) and psychiatric work (alcohol abuse, fear and withdrawal) where there are concerns about participant fatigue. However, it is important to ascertain the applicability of this methodology to wellbeing research. The most recent review of this literature was performed by Williams (2014), who noted promising results across a variety of wellbeing components.

For depression and anxiety measures sensitivity ranged from 44 to 100 percent, with nine of the 15 samples meeting the screening criteria outlined by Watkins et al. (2007). He also noted that four of the lowest performing results came from the same sample. Though findings were not as robust in correlational studies, he concluded that single-item scales produce results which are comparable to both longer measures and clinical interviews.

In comparison, the quality of life studies were less consistent. Though correlations were quite powerful when single and multi-item measures were closely matched (~.70), they were weaker when discrepancies were larger. De Boer et al. (2004) opted to compare single item measures of quality of life with the Medical Outcome Studies 20-item mental health subscale and RSCL psychological functioning subscale, where correlations were .63 and .45, respectively. Similar effects were found in stress studies. For example, Lesage and Berjot (2011) and Sagrestano et al. (2002) found remarkably different correlations despite using the same multi-item measure. While the former used a visual analogue, the latter used a yes/no response item.

Finally, Williams (2014) concludes that single-items appear to be particularly effective at assessing personality. Examples of strong correlations with multi-item measures include extraversion (.75-.80), self-esteem (.75-.80) and agreeableness (.74-.78). From these findings, he infers that some variables are better suited to single-item measurement than others. Overall, his more general conclusions were that some single-item measures allow for accurate representations of constructs, but these should not be generalised across all variables. He also stated that some of the discrepancies between single and multi-item measures are likely a function of poor matching between the two. An extension of this point is that some constructs (extraversion) are better understood by participants, leading to more robust correlations.

As life satisfaction is a reasonably straightforward concept, it should be ideal for single-item assessment; a conclusion supported by recent research (Cheung & Lucas, 2014; Lucas & Donnellan, 2012). Williams (2014) noted that validity is typically considered to be more important than reliability (Nunally & Bernstein, 1978), which is rarely measured for single-items (Wanous & Hudy, 2001). As such, single-item methodology in life satisfaction research needs to be assessed through congruent and construct validity.

A measure has congruent validity when it shares strong, powerful correlations with a valid and reliable test of the same construct (Matsumoto, 2009). Here, the single item measure will be compared with the multi-item Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985), which is a psychometrically robust tool (Diener, 1994; Pavot & Diener, 1993) that has been perhaps the most frequently administered measurement of life satisfaction; much of the research reviewed in sections 2.3 and 2.4 made use of it. As such, robust correlations between the single and multi-item measures would support the validity of the former.

Construct validity is an assessment as to whether a test measures what it intends to, and is composed of two subtypes: convergent and discriminant validity (Matsumoto, 2009). These are used to determine whether a measurement is positively related to theoretically similar variables and negatively related to dissimilar ones (Matsumoto, 2009). Both measures of life satisfaction will be compared to happiness, positive and negative affect, anxiety and depression in order to assess the psychometric validity properties of the single-item scale. These proposed components of wellbeing share robust correlations with life satisfaction in certain populations (see Section 1.4). Similarly, self-esteem, self-efficacy and optimism are robust predictors of wellbeing and theoretically relevant to this thesis. As discussed in sections 2.3 and 2.5.4, they represent a top-down perspective that could explain variation in domain-life satisfaction relationships. As such, these variables are ideal for assessing the convergent validity of a single-item measure of life satisfaction.

Finally, the relationships between these variables and life satisfaction should be consistent across both single and multi-item measures, further validating the use of the former. The congruent and construct validity of the single-item measures were assessed in two samples:

one collected by Williams (2014) and another through Mechanical Turk. Based on the literature discussed in sections 1.4, 2.3.1 and 2.5.4, the following hypotheses were developed.

Hypothesis One: Correlations between single and multi-item measures of life satisfaction will be high, demonstrating congruent validity.

Hypothesis Two: Correlations between both measures of life satisfaction and positive affect, happiness, self-esteem, self-efficacy and optimism will be similar, demonstrating convergent validity.

Hypothesis Three: Correlations between both measures of life satisfactions and negative affect, anxiety and depression will be similarly negatively related, demonstrating discriminant validity.

3.2: Method

3.2.1: Recruitment and participants.

The first sample was collected by Williams (2014), and consisted of 120 Cardiff University staff members, with age ranging from 20 to 64. 63% were married or living with a partner, 33% earned between £10,000-£19,999 per year, and 73% had a degree. The second was an opportunity sample drawn from Mechanical Turk, an online crowd-sourcing website. While relatively new in the field of psychological research, the merits of Mechanical Turk for participant recruitment have already been noted by several authors (for a detailed review, see Paolacci, Chandler, and Ipeirotis (2010) and Buhrmester, Kwang, and Gosling (2011). The participants were linked to the Qualtrics website to complete a questionnaire. The sample consisted of 119 participants from the United States.

3.2.2: Materials.

Single item measures developed by Williams (2014) were used to address all relevant variables: life satisfaction, happiness, positive affect, negative affect, depression, anxiety, self-efficacy, optimism, and self-esteem. The items, which use a 10-point Likert-type response scale, include sample items from the longer questionnaires from which they were developed. These items are reported in Table 3.1. The Satisfaction with Life Scale (SWLS) was the multi-item questionnaire used to address life satisfaction and can be seen in Table 3.2.

Table 3.1: Single Item Wellbeing and Positive Personality Items

Variable	**Question**
Life Satisfaction	Overall, I feel that I am satisfied with my life (For example: In most ways my life is close to my ideal, so far I have gotten the important things I want in life)
Happiness	On a scale of one to ten, how happy would you say you are in general?
Positive Affect	Thinking about myself and how I normally feel, in general, I mostly experience positive feelings (For example: I feel alert, inspired, determined, attentive)
Negative Affect	Thinking about myself and how I normally feel, in general, I mostly experience negative feelings (For example: I feel upset, hostile, ashamed, nervous)
Depression	On a scale of one to ten, how depressed would you say you are in general? (e.g. feeling 'down', no longer looking forward to things or enjoying things that you used to)
Anxiety	On a scale of one to ten, how anxious would you say you are in general? (e.g. feeling tense or 'wound up', unable to relax, feelings of worry or panic)
Self-efficacy	I am confident in my ability to solve problems that I might face in life (For example: I can usually handle whatever comes my way, If I try hard enough I can overcome difficult problems, I can stick to my aims and accomplish my goals)
Self-esteem	Overall, I feel that I have positive self-esteem (For example: On the whole I am satisfied with myself, I am able to do things as well as most other people, I feel that I am a person of worth)
Optimism	In general, I feel optimistic about the future (For example: I usually expect the best, I expect more good things to happen to me than bad, It's easy for me to relax)

Table 3.2: Satisfaction with Life Scale

Instructions	Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.
Scale	7 - Strongly agree 6 - Agree 5 - Slightly agree 4 - Neither agree nor disagree 3 - Slightly disagree 2 - Disagree 1 - Strongly disagree
Life Satisfaction Items	In most ways my life is close to my ideal.
	On a scale of one to ten, how happy would you say you are in general?
	The conditions of my life are excellent.
	I am satisfied with my life.
	So far I have gotten the important things I want in life
	If I could live my life over, I would change almost nothing.

3.2.3: Planned analyses.

Pearson correlations were used to test all hypotheses. To this end, both single and multi-item measures of life satisfaction were correlated with each other (hypothesis one), the various components of wellbeing (positive affect, negative affect, happiness, anxiety, depression) and positive personality traits (self-esteem, self-efficacy, optimism) in each sample (hypotheses two and three). Power analysis for a Pearson correlation was conducted in G*Power to determine a sufficient sample size with a 2-tail alpha of 0.05, a power of 0.80, a medium effect size ($\rho = .3$), and two tails (Faul et al., 2013). Based on the aforementioned assumptions, both samples exceeded the desired size of 82. Field (2013) notes that the primary assumption of a Pearson correlation coefficient is a normal distribution. Examination of relevant histograms and normal Q-Q plots revealed that the variables generally met this assumption, with some relatively minor deviations. However, violations of this assumption are less concerning when sample sizes are relatively large ($n > 30$) (Field, 2013). Similarly, Norman (2010) concluded that the Pearson

correlation is insensitive to even extreme violations of normality. As both samples contained over 110 participants, these analyses were deemed appropriate.

3.3: Results

The results of the correlational analyses are reported in tables Table 3.3 and 3.4.

Table 3.3: Summary of Life Satisfaction Pearson Correlations in the Cardiff Staff Sample

	LS	SWL	PA	NA	Hap	Anx	Dep	Opt	S-Ef	S-Es
LS	-	-	-	-	-	-	-	-	-	-
SWL	.764	-	-	-	-	-	-	-	-	-
PA	.620	.661	-	-	-	-	-	-	-	-
NA	-.492	-.557	-.852	-	-	-	-	-	-	-
Ha	.705	.753	.740	-.671	-	-	-	-	-	-
Anx	-.200*	-.253**	-.371	.490	-.341	-	-	-	-	-
Dep	-.576	-.643	-.733	.762	-.824	.485	-	-	-	-
Opt	.647	.631	.776	-.692	.759	-.376	-.657	-	-	-
S-Ef	.466	.464	.560	-.476	.592	-.271**	-.525	.536	-	-
S-Es	.486	.518	.765	-.737	.648	-.429	-.646	.663	.544	-

LS=single item life satisfaction, SWL= satisfaction with life scale, PA =positive affect, NA=Negative Affect, Hap=Happiness, Anx=anxiety, Dep=Depression, Opt=Optimism, S-Ef=Self-efficacy, S-Est=Self-esteem. ** Indicates significance at $p < .01$, and * at $p < .05$. Unless otherwise noted, correlations are significant at $p < .001$.

Table 3.4: Summary of Life Satisfaction Pearson Correlations in the Mechanical Turk Worker Sample

	LS	SWL	PA	NA	Hap	Anx	Dep	Opt	S-Ef	S-Es
LS	-	.845	.766	-.655	.810	-.314	-.562	.633	.574	.730
SWL	-	-	.659	-.594	.795	-.283	-.489	.568	.436	.656
PA	-	-	-	-.786	.841	-.415	-.654	.792	.666	.765
NA	-	-		-	-.719	.491	.733	-.707	-.630	-.684
Hap	-	-	-	-	-	-.407	-.666	.730	.569	.732
Anx	-	-	-	-	-	-	.697	-.479	-.341	-.450
Dep	-	-	-	-	-	-	-	-.682	-.551	-.632
Opt	-	-	-	-	-	-	-	-	.707	.754
S-Ef	-	-	-	-	-	-	-	-	-	.744
S-Es	-	-	-	-	-	-	-	-	-	-

LS=single item life satisfaction, SWL= satisfaction with life scale, PA =positive affect, NA=Negative Affect, Hap=Happiness, Anx=anxiety, Dep=Depression, Opt=Optimism, S-Ef=Self-efficacy, S-Est=Self-esteem. ** Indicates significance at $p < .01$, and * at $p < .05$. Unless otherwise noted, correlations are significant at $p < .001$.

Correlations between the single and multi-item measures of life satisfaction were high, indicating congruent validity (hypothesis one). Second, the positive relationships between both measures of life satisfaction and positive affect, happiness, optimism, self-efficacy and self-esteem indicated convergent validity (hypothesis two). Finally, the negative relationships between both measures of life satisfaction and negative affect, anxiety and depression suggested discriminant validity (hypothesis three). In regards to hypotheses two and three, the relationships between the relevant variables and life satisfaction were consistent across both single and multi-item measures. Finally, the pattern and strength of these associations were remarkably similar across samples.

3.4: Discussion

The results supported all three hypotheses. Williams (2014) noted that, in assessing congruent validity, a correlation of .65 is considered acceptable. Though relationships between the single and multi-item measures of life satisfaction varied across samples, both were well beyond this threshold: .845 and .764 in the Turk and Cardiff staff samples, respectively. Similarly, Williams (2014) concludes that although a threshold of .50 can be used to assess convergent and discriminant validity, relationship patterns are more telling. In this regard, these results hold up quite well. Though the correlations between measures of life satisfaction and the relevant variables were robust, they were not strong enough to raise concerns. Finally, as noted above, these correlations were remarkably similar regardless of whether single or multi-item measures of life satisfaction were used. As the Satisfaction with Life scale has undergone vigorous psychometric testing, these findings further support using a single-item methodology in wellbeing research.

Though some might argue that the United States and Great Britain are culturally homogenous, it is important to consider that they appear to differ on at least some value dimensions (Inglehart & Welzel, 2010). Beyond this, past research has shown that single items are appropriate for assessing a wide variety of constructs cross-nationally. Examples include happiness (Abdel-Khalek, 2006), mood (Hürny et al., 1996), need for consistency(Nichols & Webster, 2014), need to belong (Nichols & Webster, 2013) and personality (Konstabel, Lönnqvist, Walkowitz, Konstabel, & Verkasalo, 2012). Similarly, these results also indicate that single items are appropriate for the assessment of more complex variables: proposed wellbeing components and positive personality traits all displayed good convergent and discriminant validity. This finding is noteworthy given that single items were used to assess self-esteem, self-efficacy and optimism in the final empirical chapter of this thesis. Regardless, as noted above, the results of this chapter clearly support the use of a single item-methodology in wellbeing research. As such, analysis of the World Values Survey and Eurobarometer can commence.

4: Cross-National Variation in Values: Domain Importance in the World Values Survey

4.1: Introduction

The literature reviewed in the second chapter supported subjectivism, which presumes that the predictors of wellbeing vary as a function of values. Given that the goal of this thesis is to extend these findings through a broad, cross-national investigation of domain-life satisfaction relationships, it was deemed important to first demonstrate differences in the self-reported importance of these same values. As noted in section 2.2.4, evidence indicates that the importance of a value determines the impact that associated events and actions will have on wellbeing (Maio, 2010).

Of particular relevance here is the work of Oishi et al. (1999b), who examined the relative importance of values through analysis of the World Values Survey and undergraduate students. They hypothesized that the hierarchy of needs proposed by Maslow (1943) would moderate domain-life satisfaction relationships, arguing that structural factors would influence domain importance. Though they found some support for this hypothesis, more important was evidence of the relationship between values and wellbeing. They concluded that "value-congruent domain satisfaction is more strongly related to global life satisfaction than is value-incongruent domain satisfaction."

As past evidence indicates that domain-life satisfaction relationships vary, the values underlying them must differ if subjectivism is accurate. Thus, the goal of this chapter is to determine whether there is evidence of cross-national variation in the importance of different life domains. As noted in section 2.5.5, the World Values Survey will be used to address this issue: it assesses the self-reported importance of family, friends, leisure time, politics, work and religion. The work of Oishi et al. (1999b) is particularly relevant to this chapter, as they

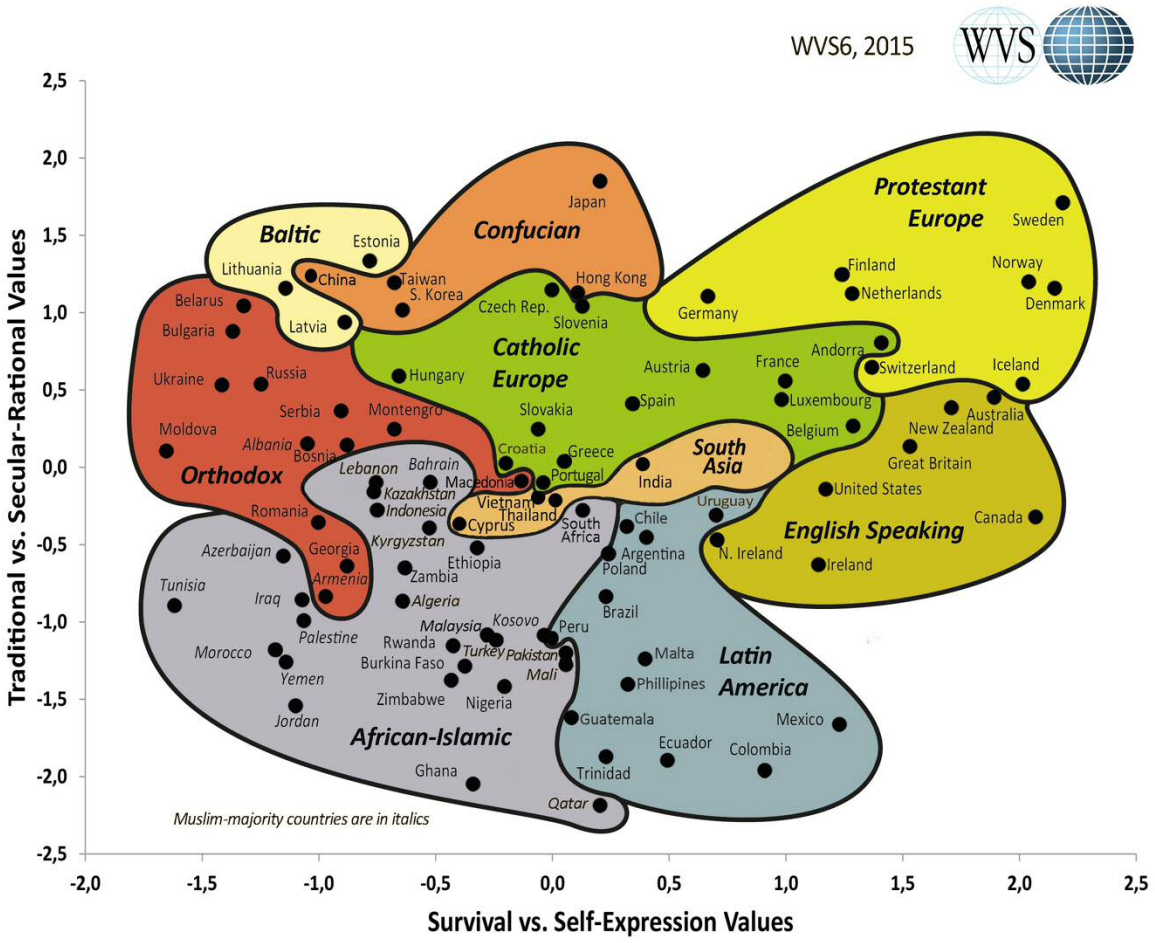
demonstrated that the values influence domain-life satisfaction relationships through analysis of the World Values Survey. Given this, evidence of variation in domain importance scores should allow for predictions about domain-life satisfaction relationships. Though the primary focus will be on cross-national differences, findings will be further validated through comparison to past research.

Past analysis of the World Values Survey has revealed cross-national differences in a variety of values. For example, Minkov and Hofstede (2012b) noted variation in long-term orientation: it was higher in Asian countries (South Korea, Japan, China, Singapore, Vietnam), compared to Latin American (Puerto Rico, Argentina, Venezuela) and African (Jordan, Egypt, Morocco, Algeria) nations. Similarly, Welzel (2011) found that emancipation values were higher in European (Sweden, Norway, Iceland) and English speaking (New Zealand, Canada, Australia) countries when compared to both Asian (Vietnam, Philippines, China) and African (Nigeria, Jordan, Iraq) nations. Alexander and Welzel (2011) discovered that patriarchal values were stronger in Muslim societies when compared to non-Muslim countries, regardless of religious orientation. Finally, Welzel (2010) noted cross-national differences in five value dimensions: self-expression, collectivism/individualism, egoism/altruism, generalised trust and collective action tendency. He also found associations between them and the universal values proposed Schwartz (1992)

However, the most popular (Minkov, 2012) analysis of this database comes from Inglehart and Welzel (2005), who grouped nations by two value dimensions: Traditional/Secular-rational and Survival/Self-expression. Traditional societies “emphasize the importance of parent-child ties and deference to authority”. They also have “absolute standards and traditional family values, and reject divorce, abortion, euthanasia, and suicide”. Secular-rational societies have the

opposite preferences on all topics. The self-expression value gives “high priority to environmental protection, tolerance of diversity and rising demands for participation in decision making in economic and political life". There is also greater tolerance of out-groups and levels of interpersonal trust. Finally, child-rearing values have shifted from emphasising hard work to imagination and understanding. Societies who are high in survival values have the opposite preferences. The most recent iteration (Inglehart & Welzel, 2010) of this map is presented in figure 4.1.

Figure 4.1: Cultural Map of the World



Perhaps the most obvious observation is that past research has not addressed variation in domain importance, which will be examined in this chapter. Regardless, this research does make it clear that a variety of values vary, and so to should domain importance. Here it is crucial to

emphasise the findings of Welzel (2010), who noted that different value systems correlated cross-nationally. As it is the most popular analysis of the World Values Survey, variation in domain importance will be compared to the most recent iteration of the cultural map of the world developed by Inglehart and Welzel (2010). Though their approach to values is more sophisticated than domain importance, the descriptions in the previous paragraph make it clear that there is overlap between the two; this is particularly evident when one considers the importance of religion to their value dimensions. As such, similarity in these findings will further validate any cross-national differences revealed through direct comparison. As noted by Schwartz (2012), values are ordered by relative importance. This means that assessing importance requires direct comparison of both absolute and relative values. Absolute differences are less likely to be reflected in domain-life satisfaction relationships, where relative importance should determine the predictors of wellbeing.

An extension of this point concerns controlling for variables that influence values. As discussed in the second chapter, basic socio-demographic factors exert a powerful influence on value priorities (Meuleman et al., 2012). This point can be better understood in relation to the hierarchy of needs proposed by (Maslow, 1943), where higher order desires only become relevant once an individual has met their basic needs. As such, socio-demographic variables will be controlled in this chapter, so that conclusions can be drawn about variation in values.

Finally, it is prudent to address the relationships between these values and life satisfaction. Though conclusions about subjectivism and objectivism cannot be drawn from these associations, it is important to further validate the existence of this relationship. Given the cross-national variation in self-reported values, the predictors of wellbeing and domain-life satisfaction

relationships noted in the second chapter and this section, the following hypotheses were developed.

Hypothesis One: Clusters created through statistical analysis of domain importance will be comparable to those developed by Inglehart and Welzel (2010).

Hypothesis Two: Direct cross-cluster comparisons will reveal significant absolute differences across each value dimension.

Hypothesis Three: Direct cross-cluster comparisons will reveal significant relative differences across each value dimension.

Hypothesis Four: Direct cross-national comparisons will reveal significant absolute differences across each value dimension.

Hypothesis Five: Direct cross-national comparisons will reveal significant relative differences across each value dimension.

Hypothesis Six: Direct cross-cluster comparisons will reveal significant differences in the relationships between values and life satisfaction.

4.2: Method

4.2.1: Procedure.

4.2.1.1: World Values Survey goals.

The World Values Survey began in 1981 and is an ongoing data collection project with waves occurring every four years. The World Values Survey Association (WVSA) was "founded in order to help social scientists and policymakers better understand worldviews and changes that are taking place in the beliefs, values and motivations of people throughout the world. In order to do so, the members of this association carry out representative national surveys of people's values and beliefs on a global scale."

4.2.1.2: Questionnaire design.

Social scientists from various disciplines and nations provide input on questionnaire design. A translation of the master questionnaire is created for each country and then translated back into English to ensure quality. It is pretested to ensure quality and eliminate problematic questions.

4.2.1.3: Sampling procedure.

The World Values Survey employs stringent sampling procedures; the organisation prefers full probability sampling. However, quota sampling is accepted if certain conditions are met: selection of primary sampling units and first stage clusters must be probabilistic, and can only be used for relatively small clusters. Additionally, a minimum of 30 primary sampling units is required, regardless of method.

In the initial stages, “a random selection of sampling points is made based on the given society’s statistical regions, districts, census units, election sections, electoral registers or voting stations and central population registers.” Typically, population size and degree of urbanisation are taken into account, with national registers being used in some countries. The sample may be no smaller than 1,000 participants, with ages ranging from 18-85. However, younger participants may be recruited, as long as the principle investigator has first ensured that the minimum required sample size for those over the age of 18 has been met.

When full probability sampling is used, no replacements are allowed. In the case of quota sampling, the organisation stresses that "every effort should be made to interview the first contact". Regardless, a report on non-responders is required. Additional pieces of documentation must be completed before a country’s data will be accepted; a full copy of the questionnaire used and a report of country specific information.

4.2.1.4: Interview procedure.

Participants are interviewed in a timeframe decreed by the executive committee. Interviews are typically done face to face, although other methods are occasionally used on an experimental basis. The principal investigator is responsible for ensuring that the survey is conducted according to standard practice: checklists are required for fieldwork, and internal consistency is routinely tested.

4.2.2: Materials.

Single item questions were used to assess both values and socio-demographic variables. For values, the participants were asked to rate the importance of six life domains: family, friends, leisure time, politics, work and religion. These items are reported in Table 4.1. Single item measures were also used to assess socio-demographic variables which influence value priorities (income, sex, age, education, employment and marital status).

Table 4.1: Value Questions Assessing Family, Friends, Leisure Time, Politics, Work and Religion

For each of the following, indicate how important it is in your life. Would you say it is				
	Very important	Rather important	Not very important	Not at all important
Family	1	2	3	4
Friends	1	2	3	4
Leisure Time	1	2	3	4
Politics	1	2	3	4
Work	1	2	3	4
Religion	1	2	3	4

4.2.3: Participants.

Data from the second release (04/2914) of the sixth wave of World Values Survey was analysed. Listwise deletion was used to eliminate missing values. This practice is considered acceptable in a dataset of this size when percentages of missing data are small, as was the case

here (Cheema, 2014; H. Kang, 2013). Listwise deletion has been used in past analysis of the World Values Survey (Minkov & Hofstede, 2012a; Morselli & Passini, 2012). After eliminating non-respondents, there were 73,896 participants, with an average age of 42 (SD=16.645), ranging from 16 to 83. Of these respondents, 35,954 were male, and 37,942 were female. Breakdowns for individual countries can be seen in Appendices 4.2 (age) and 4.3 (gender).

4.2.4: Planned analyses.

A between-groups linkage cluster analysis was conducted using domain importance scores (family, friends, leisure time, politics, work, religion) to compare cross-national differences to past research (hypothesis one). Squared Euclidean distance was used as the interval measure. As average linkage algorithms tend to produce clusters of relatively similar sizes (Mooi & Sarstedt, 2011) this method was deemed ideal for comparison to the cultural map developed by Welzel (2010). Though it is sensitive to outliers (Mooi & Sarstedt, 2011), the limited range of the domain importance scores meant that this was not a concern. As variability differed across domains, they were standardised (z-scores) to avoid creating groups skewed by a single factor. Everitt, Landau, Leese, and Stahl (2011) noted that this type of standardisation can be considered a form of weighting. While it is typically used to counteract concerns over variability differences, Mooi and Sarstedt (2011) suggested standardising variables as a general rule.

These clusters were used as the independent variables in the first multivariate analysis of covariance (MANCOVA). Domain importance scores were used as the dependent variables to determine whether absolute cross-cluster differences existed for each domain (hypothesis two). In the second MANCOVA, clusters developed by Inglehart and Welzel (2010) were used as independent variables while domain importance scores were used as dependent variables. This

analysis allowed for further testing of absolute cross cluster differences (hypothesis two) and comparison with past research (hypothesis one). Both MANCOVAs were repeated using domain importance percentage scores as independent variables to assess relative cross-cluster differences (hypothesis three). These were calculated by dividing each domain by the sum of the total importance scores (IE ((family) / (family + friends + leisure time + politics + work + religion)). Clusters developed through the between-groups linkage analysis were used as the independent variable in the third analysis, while the Inglehart and Welzel (2010) clusters were used in the fourth. Finally, these analyses were repeated using country as the independent factor. In the first analysis, domain importance scores were used as dependent variables to assess absolute cross-national differences (hypothesis four). In the second, domain importance percentage scores were used to evaluate relative differences (hypothesis five). Income, sex, age, education, employment and marital status were entered as covariates in all analyses, as research indicates that basic socio-demographic factors have a substantial effect on value priorities (Meuleman et al., 2012). As SPSS does not allow for extensive post-hoc testing when performing a MANCOVA, these analyses were repeated without controlling for the covariates. The Bonferroni method was used for post-hoc analyses in each MANOVA in order to correct for multiple comparisons.

The primary assumptions of the MANCOVA analyses were assessed using the procedure outlined by Tabachnick and Fidell (2013). Box's M was significant for each analysis, indicating that the assumption of homogeneity of covariance had been violated. Similarly, the significance of Levene's test across all models indicated that variance was not homogenous. Though these results were initially concerning, both tests are particularly sensitive to large datasets (Tabachnick & Fidell, 2013). As the smallest sample contained over 700 participants (see appendix 4.2), these violations were deemed acceptable. Furthermore, Norman (2010) notes that

tests from the ANOVA family are quite robust to violations of their basic assumptions. Though these analyses were deemed appropriate, both Wilks' Lambda and Pillai's trace are reported in section 4.3 to alleviate associated concerns,

A hierarchical multiple regression was run using interaction terms developed from domain importance scores and cluster to test the sixth hypothesis and analyse cross-national variation in the relationships between values and life satisfaction. Tabachnick and Fidell (2013) outlined the method used to create these variables. Socio-demographic variables (Income, sex, age, education, employment and marital status) were introduced in the first step. As previously noted, they are associated with value priorities (Meuleman et al., 2012). They are also wellbeing covariates which have been controlled in past analysis of the World Values Survey (Oishi, Diener, & Lucas, 2007). Domain importance interaction terms were entered in second and third blocks. Life satisfaction was the outcome variable. One hierarchical multiple regression analysis was run per cluster to better understand these findings and relate them to the sixth hypothesis. Variables were entered in the same order: socio-demographic information in the first block and domain satisfaction scores in the second. Z-scores computed from the unstandardized beta coefficients and standard error terms of these analyses were used to make direct comparisons. This method was outlined by Paternoster, Brame, Mazerolle, and Piquero (1998). The sample sizes of individual countries and clusters meant that power was not a concern for any of the analyses.

Model assumptions for regression analyses were tested using the protocol outlined by Field (2013). Multicollinearity was not a concern as variance inflation factors were well below 10 and all tolerance factors exceeded 0.1. All Durbin-Watson values fell within the acceptable range of 1.5-2.5, indicating that the assumption of independent errors had been met.

Examination of the scatterplots of standardised residuals revealed that neither the linearity or homoscedasticity assumptions had been violated. Both the histograms and normal P-P plots of the standardised residuals indicated that, generally, errors approximated a normal distribution. Though there was evidence of minor deviation from this pattern in several cases, the large sample sizes alleviated associated concerns. Lumley, Diehr, Emerson, and Chen (2002) concluded that samples of less than 100 were typically large enough to ensure robustness when the assumption of normality had been violated. As all countries and clusters exceeded this value (see appendix 4.2), these analyses were deemed appropriate.

4.3: Results

The results of the cluster analysis can be seen in Table 4.2. The first group contained Algeria, Armenia, Egypt, Iraq, Jordan, Kyrgyzstan, Pakistan, Palestine, Philippines, Uzbekistan and Yemen; the second contained Ecuador, Ghana, Malaysia, Mexico, Trinidad and Tobago, Tunisia and Zimbabwe; the third contained Azerbaijan, Morocco and Romania; the fourth contained Belarus, China, Netherlands, Russia, and Ukraine; the fifth contained Chile, Estonia, Slovenia, Spain and Uruguay; the sixth contained Cyprus, Kazakhstan, Poland, South Korea and Taiwan; the seventh contained Australia, Japan, New Zealand, Singapore, Sweden, Turkey and the United States. Australia, New Zealand and the United States are members of the English speaking group; the eighth Lebanon and Germany; the ninth contained Columbia and Peru; the tenth included Kuwait, Libya, Nigeria, Qatar and Rwanda. The means for both these clusters and those developed by Inglehart and Welzel (2010) are detailed in Table 4.2.

Table 4.2: Summary of Values Cluster Analysis: Family, Friends, Leisure Time, Politics, Work, Religion

Country	Cluster	Family	Friend	Leisure	Politics	Work	Religion
Algeria	1	3.9	3.25	2.98	2.3	3.61	3.88
Armenia	1	3.97	3.29	3.02	2.07	3.64	3.43
Egypt	1	3.97	3.41	2.74	2.95	3.35	3.94
Iraq	1	3.92	3.34	2.67	2.27	3.55	3.82
Jordan	1	3.96	3.4	3.04	2.21	3.51	3.93
Kyrgyzstan	1	3.96	3.22	2.85	2.58	3.55	3.2
Pakistan	1	3.94	3.24	2.62	2.15	3.62	3.88
Palestine	1	3.95	3.26	2.93	2.5	3.49	3.83
Philippines	1	3.99	3.19	2.55	2.73	3.88	3.84
Uzbekistan	1	3.97	3.43	2.86	2.39	3.51	3.03
Yemen	1	3.96	3.42	2.66	2.33	3.52	3.94
Ecuador	2	3.98	3.03	3.41	2.45	3.83	3.52
Ghana	2	3.94	3.21	3.37	2.48	3.93	3.9
Malaysia	2	3.97	3.36	3.24	2.6	3.78	3.81
Mexico	2	3.97	3.12	3.42	2.39	3.81	3.37
Trinidad and Tobago	2	3.93	3.09	3.35	2.24	3.58	3.69
Tunisia	2	3.98	3.24	2.99	2.3	3.8	3.94
Zimbabwe	2	3.96	3.21	3.17	2.45	3.82	3.78
Azerbaijan	3	3.93	3.16	2.81	2.02	3.46	2.95
Morocco	3	3.89	3.08	2.49	1.66	3.76	3.87
Romania	3	3.92	2.94	3.09	1.9	3.44	3.31
Belarus	4	3.87	3.27	3.1	2.19	3.15	2.48
China	4	3.85	3.42	2.95	2.44	3.19	1.57
Netherlands	4	3.83	3.45	3.35	2.31	3.07	1.91
Russia	4	3.84	3.14	3.03	2.05	3.17	2.34
Ukraine	4	3.9	3.28	3.13	2.06	3.22	2.74
Chile	5	3.91	3.13	3.47	1.94	3.45	2.69
Estonia	5	3.86	3.41	3.23	2.12	3.29	1.97
Slovenia	5	3.88	3.36	3.28	1.73	3.3	2.18
Spain	5	3.91	3.5	3.37	1.89	3.43	2.06
Uruguay	5	3.87	3.31	3.37	2.04	3.51	2.28
Cyprus	6	3.92	3.53	3.44	2.22	3.57	3.24
Kazakhstan	6	3.92	3.34	3.2	2.43	3.43	2.65
Poland	6	3.92	3.32	3.21	2.18	3.54	3.21
South Korea	6	3.9	3.45	3.18	2.58	3.5	2.62
Taiwan	6	3.91	3.37	3.21	2.18	3.5	2.61
Australia	7	3.91	3.53	3.34	2.41	3.11	2.07

Country	Cluster	Family	Friend	Leisure	Politics	Work	Religion
Japan	7	3.92	3.4	3.35	2.94	3.42	1.89
New Zealand	7	3.94	3.52	3.41	2.45	3.17	2.22
Singapore	7	3.92	3.46	3.25	2.54	3.23	3.15
Sweden	7	3.88	3.65	3.5	2.72	3.4	1.99
Turkey	7	3.95	3.55	3.27	2.46	3.26	3.58
United States	7	3.89	3.47	3.29	2.54	3.09	2.96
Germany	8	3.72	3.45	3.19	2.41	3.16	2.25
Lebanon	8	3.76	3.39	3.07	2.48	3.52	3.3
Colombia	9	3.85	2.99	3.34	1.98	3.74	3.41
Peru	9	3.86	2.77	3.1	2.27	3.66	3.29
Kuwait	10	3.94	3.48	3.03	2.82	3.71	3.86
Libya	10	3.96	3.58	3.2	2.7	3.7	3.96
Nigeria	10	3.98	3.56	3.35	2.53	3.67	3.87
Qatar	10	3.99	3.71	3.22	2.84	3.77	3.99
Rwanda	10	3.9	3.69	3	2.71	3.58	3.09

The first MANCOVA (IV: between-groups linkage cluster, DV: domain importance) revealed a statistically significant difference in domain importance based on cluster, F (54, 347069.357) = 735.651, $p < .001$; Wilk's $\Lambda = 0.575$, partial $\eta 2 = 0.088$. Pillai's Trace revealed a similar effect, F (54, 408420.00) = 658.86, $p < .001$; Pillai's Trace = 0.481, partial $\eta 2 = 0.080$.

Furthermore, cluster had a statistically significant effect on all domains: family (F (9, 68070) = 180.966; $p < .001$; partial $\eta 2 = .023$); friendship (F (9, 68070) = 379.712; $p < .001$; partial $\eta 2 = .048$); leisure (F (9, 68070) = 440.800; $p < .001$; partial $\eta 2 = .055$); politics (F (9, 68070) = 449.861; $p < .001$; partial $\eta 2 = .056$); work (F (9, 68070) = 526.624; $p < .001$; partial $\eta 2 = .065$) and religion (F (9, 68070) = 3210.989; $p < .001$; partial $\eta 2 = .298$). Cluster value means are summarized in table 4.3, with ranges as follows: family (3.74-3.96), friends (2.89-3.60), leisure time (2.81-3.33), politics (1.86-2.70), work (3.16-3.80) and religion (2.17-3.75). Of the 540 MANOVA post-hoc comparisons, 58 were non-significant.

For the second MANCOVA (IV: Inglehart and Welzel (2010) clusters, DV: domain importance) there was a statistically significant difference in domain importance based on cluster , $F (48, 334917.324) = 716.717$, $p < .001$; Wilk's $\Lambda = 0.618$, partial $\eta 2 = 0.077$. Pillai's Trace revealed a similar effect, $F (48, 408426.00) = 637.047$, $p < .001$; Pillai's Trace = 0.418, partial $\eta 2 = 0.070$. Cluster had a statistically significant effect on all domains: family ($F (8, 68070) = 100.741$; $p < .001$; partial $\eta 2 = .012$); friendship ($F (8, 68071) = 296.762$; $p < .0005$; partial $\eta 2 = .034$); leisure ($F (8, 68071) = 206.863$; $p < .001$; partial $\eta 2 = .024$); politics ($F (8, 68071) = 333.640$; $p < .001$; partial $\eta 2 = .038$); work ($F (8, 68071) = 384.335$; $p < .001$; partial $\eta 2 = .043$); and religion ($F (8, 68071) = 3590.332$; $p < .001$; partial $\eta 2 = .297$). Cluster value means are summarized in table 4.3, with ranges as follows: family (3.80-3.94), friends (3.08-3.50), leisure time (3.01-3.33), politics (1.82-2.56), work (3.11-3.71) and religion (1.98-3.63). Of the 432 MANOVA post-hoc comparisons, 84 were non-significant.

Table 4.3: Summary of Values Means for Between-Groups Linkage and Cultural Map Clusters

Cluster	Family	Friend	Leisure	Politics	Work	Religion
1	3.96	3.31	2.81	2.43	3.57	3.68
2	3.96	3.18	3.29	2.44	3.8	3.68
3	3.91	3.03	2.83	1.87	3.52	3.37
4	3.86	3.3	3.09	2.22	3.16	2.18
5	3.88	3.34	3.32	1.97	3.38	2.2
6	3.91	3.39	3.24	2.34	3.5	2.81
7	3.92	3.5	3.33	2.59	3.25	2.68
8	3.74	3.42	3.15	2.46	3.28	2.65
9	3.85	2.89	3.23	2.1	3.71	3.36
10	3.96	3.6	3.18	2.7	3.68	3.75
African-Islamic	3.94	3.39	3.02	2.48	3.6	3.63
Orthodox	3.89	3.17	3.07	2.05	3.3	2.8
Catholic Europe	3.9	3.42	3.33	1.82	3.36	2.11
Confucian	3.89	3.4	3.15	2.55	3.37	2.07
English Speaking	3.91	3.5	3.35	2.48	3.13	2.58
Latin American	3.92	3.08	3.23	2.29	3.72	3.32
South East Asian	3.92	3.44	3.28	2.37	3.39	3.19
Protestant Europe	3.8	3.49	3.32	2.48	3.19	2.07
Baltic	3.85	3.39	3.21	2.13	3.27	1.98

The significant effect of cluster persisted in the third MANCOVA (IV: between-groups linkage cluster, DV: domain importance percentage): $F (45, 304478.846) = 762.874$, $p < .001$; Wilk's $\Lambda = 0.620$, partial $\eta 2 = 0.091$. Pillai's Trace revealed a similar effect, $F (45, 340350.00) = 696.419$, $p < .001$; Pillai's Trace = 0.422, partial $\eta 2 = 0.084$. As was the case in the previous analyses, cluster had a significant impact on all domains: family ($F (9, 68070) = 605.175$; $p < .001$; partial $\eta 2 = .074$); friendship ($F (9, 68070) = 824.251$; $p < .0005$; partial $\eta 2 = .098$); leisure ($F (9, 68070) = 966.595$; $p < .001$; partial $\eta 2 = .113$); politics ($F (9, 68070) = 298.735$; $p < .001$; partial $\eta 2 = .038$); work ($F (9, 68070) = 271.186$; $p < .001$; partial $\eta 2 = .035$); and religion ($F (9, 68070) = 2511.820$; $p < .001$; partial $\eta 2 = .252$). Cluster value importance means are summarized

in table 4.3, with ranges as follows: family (0.1917- 0.2197), friends (0.1502- 0.1863), leisure time (0.141- 0.1838), politics (0.0984- 0.1339), work (0.1682- 0.1951) and religion (0.1203- 0.1872). Of the 540 MANOVA post-hoc comparisons, 50 were non-significant.

There was a statistically significant difference in domain importance based on cluster in the fourth MANCOVA (IV: Inglehart and Welzel (2010), DV: domain importance percentage): $F (40, 296699.969) = 780.770$, $p < .001$; Wilk's $\Lambda = 0.646$, partial $\eta 2 = 0.084$. . Pillai's Trace revealed a similar effect, $F (40, 340355.00) = 709.162$, $p < .001$; Pillai's Trace = 0.385, partial $\eta 2 = 0.077$. As was the case in the previous analyses, cluster had a significant impact on all domains: family ($F (8, 68071) = 422.997$; $p < .001$; partial $\eta 2 = .047$); friendship ($F (8, 68071) = 785.163$; $p < .001$; partial $\eta 2 = .084$); leisure ($F (8, 68071) = 838.311$; $p < .001$; partial $\eta 2 = .090$); politics ($F (8, 68071) = 306.902$; $p < .001$; partial $\eta 2 = .035$); work ($F (8, 68071) = 224.418$; $p < .001$; partial $\eta 2 = .026$); and religion ($F (8, 68071) = 3116.278$; $p < .001$; partial $\eta 2 = .268$). Cluster value importance means are summarized in table 4.4, with ranges as follows: family (0.1994- 0.2195), friends (0.1568- 0.1914), leisure time (0.1493- 0.1859), politics (0.1002- 0.1373), work (0.1648- 0.1911) and religion (0.1101- 0.1817). Of the 540 MANOVA post-hoc comparisons, 50 were non-significant.

Table 4.4: Summary of Values Importance Means for Between-Groups Linkage and Cultural Map Clusters

Cluster	Family	Friend	Leisure	Politics	Work	Religion
1	0.2029	0.1672	0.141	0.1209	0.1807	0.1873
2	0.1969	0.1553	0.1612	0.1178	0.1875	0.1814
3	0.2141	0.1631	0.1517	0.0992	0.1901	0.1818
4	0.2195	0.1857	0.1734	0.1237	0.1766	0.1211
5	0.2169	0.1852	0.1838	0.1074	0.1864	0.1202
6	0.2063	0.1771	0.1684	0.1207	0.1827	0.1447
7	0.2057	0.1823	0.1735	0.1334	0.168	0.1371
8	0.2018	0.1839	0.169	0.1304	0.1751	0.1399
9	0.2032	0.1502	0.1682	0.1082	0.1953	0.175
10	0.1917	0.1732	0.1514	0.1273	0.1762	0.1802
African-Islamic	0.1994	0.169	0.1493	0.1213	0.1793	0.1817
Orthodox	0.2161	0.1736	0.1674	0.1112	0.1796	0.152
Catholic Europe	0.2195	0.1914	0.1859	0.1002	0.1871	0.116
Confucian	0.2138	0.1853	0.1708	0.1373	0.1828	0.1101
English Speaking	0.2085	0.1855	0.1776	0.1299	0.1648	0.1337
Latin American	0.2031	0.1568	0.1651	0.1148	0.1911	0.1692
South East Asian	0.2023	0.176	0.1672	0.1195	0.1729	0.1623
Protestant Europe	0.2086	0.191	0.1817	0.1341	0.1733	0.1114
Baltic	0.2185	0.1907	0.1796	0.1185	0.1824	0.1102

In the fifth MANCOVA (IV: country DV: domain importance), there was a statistically significant difference in domain importance based on country: $F (306, 405727.706) = 214.159$, $p < .001$; Wilk's $\Lambda = 0.409$, partial $\eta 2 = 0.138$. Pillai's Trace revealed a similar effect, $F (306, 408168.00) = 185.793$, $p < .001$; Pillai's Trace = 0.734, partial $\eta 2 = 0.122$. Furthermore, country had a statistically significant effect on all domains: family ($F (51, 68028) = 38.083$; $p < .001$; partial $\eta 2 = .028$); friendship ($F (51, 68028) = 92.828$; $p < .0005$; partial $\eta 2 = .065$); leisure ($F (51, 68028) = 119.381$; $p < .001$; partial $\eta 2 = .082$); politics ($F (51, 68028) = 126.974$; $p < .001$; partial $\eta 2 = .087$); work ($F (51, 68028) = 120.172$; $p < .001$; partial $\eta 2 = .083$); and religion ($F (51, 68028) = 1028.737$; $p < .001$; partial $\eta 2 = .435$). Country value means are summarized in

table 4.5, with ranges as follows: family (3.72-3.99), friends (2.77-3.71), leisure time (2.49-3.50), politics (1.66-2.95), work (3.07-3.93) and religion (1.57-3.99). Of the 15912 MANOVA post-hoc comparisons, 4950 were non-significant.

Table 4.5: Summary of Value Means for Countries

Country	Family	Friends	Leisure Time	Politics	Work	Religion
Algeria	3.9	3.25	2.98	2.3	3.61	3.88
Azerbaijan	3.93	3.13	2.78	1.98	3.43	2.95
Australia	3.93	3.53	3.37	2.4	3.15	2.05
Armenia	3.97	3.26	3.03	2.07	3.64	3.44
Belarus	3.87	3.28	3.12	2.19	3.17	2.48
Chile	3.91	3.14	3.46	1.96	3.46	2.71
China	3.85	3.41	2.96	2.45	3.17	1.58
Taiwan	3.91	3.37	3.21	2.18	3.52	2.6
Colombia	3.85	2.99	3.33	1.98	3.74	3.41
Cyprus	3.92	3.52	3.43	2.24	3.59	3.26
Ecuador	3.98	3.03	3.41	2.45	3.83	3.52
Estonia	3.85	3.39	3.21	2.13	3.27	1.98
Palestine	3.95	3.26	2.93	2.5	3.5	3.83
Germany	3.73	3.44	3.19	2.44	3.15	2.28
Ghana	3.93	3.21	3.35	2.58	3.93	3.88
Iraq	3.92	3.33	2.67	2.27	3.55	3.82
Japan	3.92	3.36	3.32	2.95	3.42	1.87
Kazakhstan	3.92	3.33	3.19	2.42	3.41	2.65
Jordan	3.96	3.4	3.04	2.21	3.51	3.93
South Korea	3.9	3.46	3.2	2.59	3.5	2.6
Kuwait	3.94	3.49	3.04	2.84	3.72	3.86
Kyrgyzstan	3.96	3.22	2.85	2.58	3.56	3.2
Lebanon	3.75	3.39	3.07	2.48	3.51	3.3
Libya	3.96	3.57	3.19	2.7	3.69	3.96
Malaysia	3.97	3.36	3.24	2.6	3.78	3.81
Mexico	3.97	3.12	3.42	2.39	3.81	3.36
Morocco	3.89	3.06	2.5	1.71	3.74	3.85
Netherlands	3.82	3.44	3.34	2.34	3.08	1.9
New Zealand	3.94	3.52	3.43	2.44	3.17	2.18
Nigeria	3.98	3.56	3.35	2.54	3.67	3.87
Pakistan	3.94	3.24	2.59	2.13	3.65	3.89
Peru	3.85	2.77	3.09	2.27	3.67	3.29

Country	Family	Friends	Leisure Time	Politics	Work	Religion
Philippines	3.99	3.18	2.55	2.72	3.89	3.84
Poland	3.92	3.33	3.22	2.18	3.56	3.18
Qatar	3.99	3.71	3.22	2.84	3.78	3.99
Romania	3.92	2.93	3.08	1.9	3.44	3.34
Russia	3.84	3.13	3.02	2.05	3.16	2.34
Rwanda	3.9	3.69	3	2.71	3.58	3.09
Singapore	3.92	3.46	3.24	2.53	3.22	3.16
Slovenia	3.88	3.36	3.29	1.72	3.29	2.17
Zimbabwe	3.96	3.23	3.18	2.51	3.79	3.78
Spain	3.91	3.49	3.37	1.92	3.43	2.05
Sweden	3.87	3.65	3.5	2.74	3.41	1.97
Trinidad and Tobago	3.93	3.09	3.35	2.24	3.59	3.69
Tunisia	3.98	3.23	2.97	2.29	3.8	3.93
Turkey	3.95	3.56	3.29	2.49	3.28	3.55
Ukraine	3.9	3.27	3.13	2.07	3.21	2.76
Egypt	3.97	3.42	2.75	2.96	3.33	3.94
United States	3.89	3.48	3.31	2.54	3.11	2.95
Uruguay	3.87	3.3	3.37	2.04	3.51	2.28
Uzbekistan	3.97	3.42	2.85	2.4	3.52	3.03
Yemen	3.96	3.42	2.66	2.33	3.52	3.94

Finally, the sixth MANCOVA (IV: country DV: domain importance percentage), revealed that domain importance percentage differed significantly based on country: $F (255, 338814.910) = 226.856$, $p < .001$; Wilk's $\Lambda = 0.456$, partial $\eta 2 = 0.145$. Pillai's Trace revealed a similar effect, $F (255, 340140.00) = 201.503$, $p < .001$; Pillai's Trace = 0.656, partial $\eta 2 = 0.131$. As was the case in the previous analysis, country had a significant impact on all domains: family ($F (51, 68028) = 140.254$; $p < .001$; partial $\eta 2 = .095$); friendship ($F (51, 68028) = 199.342$; $p < .001$; partial $\eta 2 = .130$); leisure ($51, 68028) = 241.185$; $p < .001$; partial $\eta 2 = .153$); politics ($F (51, 68028) = 118.507$; $p < .001$; partial $\eta 2 = .082$); work ($F (51, 68028) = 79.442$; $p < .001$; partial $\eta 2 = .056$); and religion ($F (51, 68028) = 853.843$; $p < .001$; partial $\eta 2 = .390$). Of the 432 post-hoc comparisons, 40 were non-significant. Country value importance means are

summarized in table 4.6, with ranges as follows: family (0.1863- 0.2237), friends (0.1452- 0.1964), leisure time (0.1249- 0.1881), politics (0.0866- 0.1544), work (0.1611- 0.2016) and religion (0.0904- 0.2085). Of the 15912 MANOVA post-hoc comparisons, 3766 were non-significant.

Table 4.6: Summary of Value Importance Means for Countries

Country	Family	Friends	Leisure Time	Politics	Work	Religion
Algeria	0.1992	0.1619	0.147	0.1126	0.1809	0.1983
Azerbaijan	0.2203	0.172	0.1523	0.1067	0.1882	0.1606
Australia	0.2156	0.1922	0.1839	0.1288	0.1704	0.1091
Armenia	0.2071	0.1678	0.1554	0.1047	0.188	0.177
Belarus	0.2169	0.1816	0.1716	0.1198	0.174	0.1361
Chile	0.2123	0.1684	0.1858	0.1034	0.186	0.144
China	0.2239	0.1962	0.1691	0.1393	0.1815	0.09
Taiwan	0.2102	0.1796	0.1707	0.1146	0.1881	0.1367
Colombia	0.2011	0.1539	0.1726	0.1008	0.1954	0.1762
Cyprus	0.1987	0.1769	0.1716	0.1101	0.1803	0.1624
Ecuador	0.1991	0.1491	0.1684	0.1188	0.1906	0.1739
Estonia	0.2185	0.1907	0.1796	0.1185	0.1824	0.1102
Palestine	0.2009	0.1621	0.1454	0.1233	0.1743	0.194
Germany	0.2061	0.1895	0.1755	0.1329	0.1721	0.1239
Ghana	0.1893	0.1522	0.1603	0.1216	0.1898	0.1868
Iraq	0.2028	0.17	0.1352	0.1138	0.1813	0.1969
Japan	0.2105	0.1788	0.1766	0.1555	0.1813	0.0973
Kazakhstan	0.2107	0.1759	0.1678	0.1268	0.1806	0.1383
Jordan	0.1995	0.1693	0.1505	0.108	0.1745	0.1981
South Korea	0.2046	0.1803	0.1666	0.1334	0.1818	0.1333
Kuwait	0.1904	0.1672	0.1441	0.1335	0.1787	0.186
Kyrgyzstan	0.207	0.1664	0.1462	0.1316	0.1839	0.1649
Lebanon	0.1943	0.174	0.1573	0.1258	0.1803	0.1682
Libya	0.1898	0.1698	0.1506	0.1257	0.1746	0.1895
Malaysia	0.1928	0.1615	0.1553	0.1234	0.1825	0.1844
Mexico	0.2005	0.1547	0.17	0.117	0.1907	0.1671
Morocco	0.2096	0.1626	0.1308	0.089	0.2003	0.2078
Netherlands	0.2149	0.1926	0.1877	0.1299	0.1713	0.1037
New Zealand	0.2136	0.1892	0.1843	0.1297	0.1695	0.1137
Nigeria	0.1922	0.1699	0.1591	0.1189	0.1747	0.1852

Country	Family	Friends	Leisure Time	Politics	Work	Religion
Pakistan	0.2051	0.1659	0.1323	0.1075	0.1873	0.2018
Peru	0.2059	0.1454	0.1624	0.1178	0.1951	0.1734
Philippines	0.1996	0.1577	0.1249	0.1327	0.1938	0.1913
Poland	0.2041	0.1719	0.1656	0.1112	0.1832	0.1638
Qatar	0.1863	0.1726	0.1488	0.1304	0.1756	0.1863
Romania	0.2129	0.1573	0.1649	0.1007	0.1848	0.1795
Russia	0.223	0.1789	0.1715	0.1156	0.1794	0.1317
Rwanda	0.198	0.186	0.1492	0.1342	0.179	0.1536
Singapore	0.2032	0.1775	0.1656	0.1283	0.1639	0.1614
Slovenia	0.2213	0.1897	0.1857	0.0962	0.1861	0.1209
Zimbabwe	0.1956	0.1575	0.1549	0.1207	0.1858	0.1856
Spain	0.2178	0.1929	0.1861	0.104	0.188	0.1112
Sweden	0.2038	0.1912	0.1837	0.1418	0.1781	0.1014
Trinidad and Tobago	0.1999	0.1549	0.1681	0.1107	0.1805	0.186
Tunisia	0.2001	0.1577	0.145	0.1106	0.1891	0.1974
Turkey	0.1989	0.1777	0.1632	0.1218	0.1617	0.1766
Ukraine	0.216	0.1786	0.1697	0.1121	0.174	0.1496
Egypt	0.1975	0.1672	0.1336	0.1438	0.1619	0.196
United States	0.2037	0.1813	0.1726	0.1304	0.1608	0.1511
Uruguay	0.2133	0.1792	0.1838	0.1093	0.1918	0.1226
Uzbekistan	0.2105	0.1787	0.1474	0.1229	0.1828	0.1577
Yemen	0.202	0.1727	0.1337	0.1149	0.1762	0.2006

The results of the interaction regression revealed significant effects for four domains: leisure time ($b = -.11$, $t(67223) = -3.119$, $p = .002$), politics ($b = -.007$, $t(67223) = -2.405$, $p < .016$), work ($b = -.019$, $t(67223) = -4.732$, $p < .001$) and religion ($b = .018$, $t(67223) = 4.959$, $p < .001$). The unstandardized beta weights of the individual cluster regression analyses are reported in table 4.9. The importance of family was associated with life satisfaction in all clusters but three ($b = .126$) and nine ($b = .008$); friendship was associated with life satisfaction in all clusters but five ($b = -.024$) and six ($b = .026$); leisure time was associated with life satisfaction in all clusters but one ($b = .036$) and ten ($b = -.049$); politics was associated with life satisfaction in clusters three ($b = .008$), four ($b = -.001$), five ($b = .014$), six ($b = -.038$) and ten ($b = .041$); work

was only associated with life satisfaction in cluster one (b = .162); religion was associated with life satisfaction in all clusters.

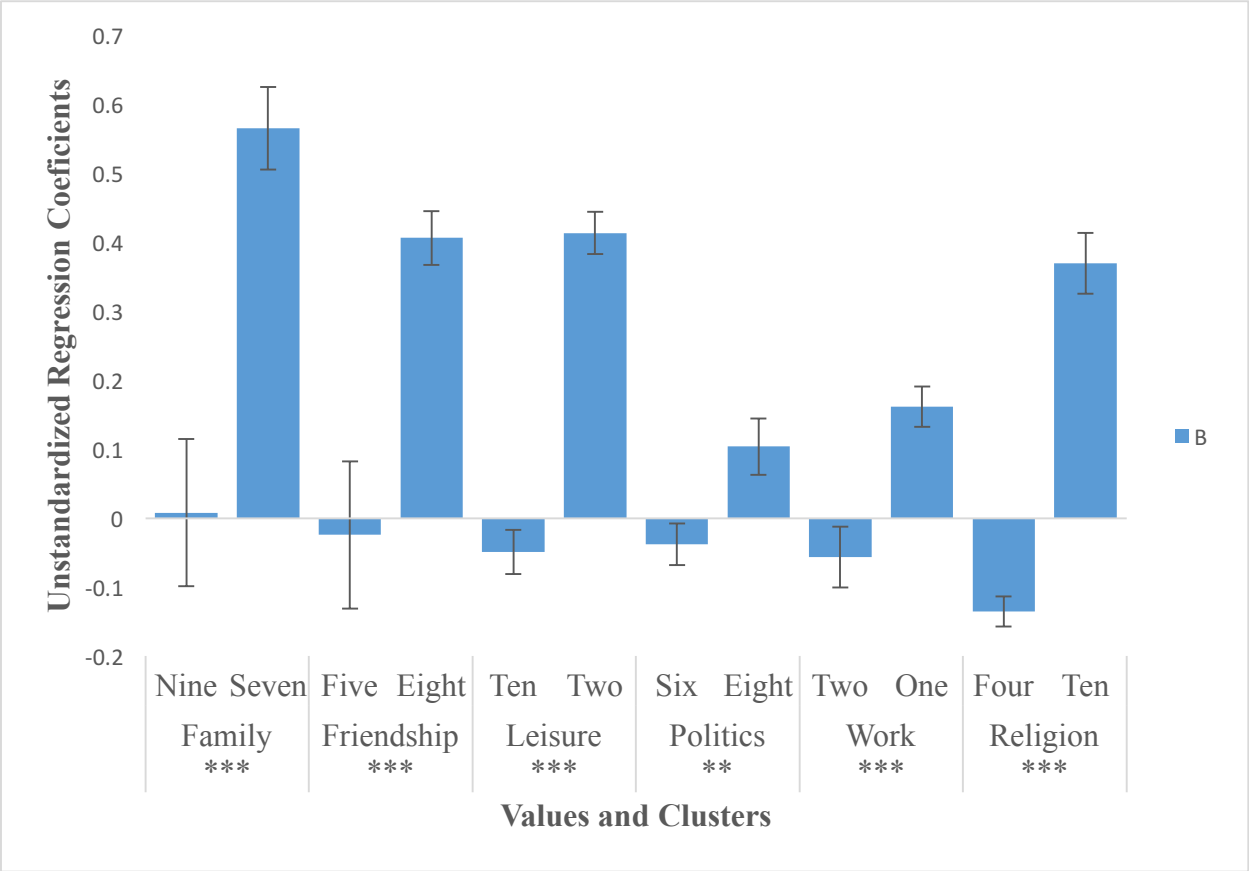
Z-scores confirmed significant differences across each domain: family for clusters nine (Beta = 0.008, SE = 0.107) and seven (Beta = 0.566, SE = 0.06); z = 4.54, $p < .001$; friendship for clusters five (Beta = -0.024, SE = 0.107) and eight (Beta = 0.407, SE = 0.039); z = 3.78, $p < .001$; leisure for clusters ten (Beta = -0.049, SE = 0.032) and two (Beta = 0.414, SE = 0.031); z = 10.392, $p < .001$; politics for clusters six (Beta = -0.038, SE = 0.03) and eight (Beta = 0.104, SE = 0.041); z = 2.795, p = .003; work for clusters two (Beta = -0.056, SE = 0.044) and one (Beta = 0.162, SE = 0.029); z = 4.136, $p < .001$; religion for clusters four (Beta = -0.135, SE = 0.022) and ten (Beta = 0.37, SE = 0.044); z = 10.265, $p < .001$. These findings are visualized in figure 4.2.

Table 4.7: Summary of Individual Cluster Regression Analysis for Values Predicting Life Satisfaction

Cluster	Family	Friendship	Leisure	Politics	Work	Religion
1	0.345***	0.092**	0.036	0.008	0.162***	-0.148***
2	0.345***	-0.09**	0.414***	-0.001	-0.056	-0.332***
3	0.126	0.13*	0.156**	-0.119**	0.058	0.168**
4	0.308***	0.285***	0.146***	0.071**	0.008	-0.135***
5	0.439***	-0.024	0.237***	0.014	-0.024	0.163***
6	0.481***	0.026	0.092*	-0.038	-0.033	0.14***
7	0.566***	0.201***	0.199***	-0.057*	-0.019	0.042*
8	0.468***	0.407***	0.245***	0.104*	0.02	-0.201***
9	0.008	0.123*	0.203***	-0.169***	0.03	0.17**
10	0.359**	0.258***	-0.049	0.041	-0.007	0.37***

*p < .05. **p < .01. ***p < .01.

Figure 4.2: Histogram Depicting Z-Score Comparisons Computed From the Unstandardized Regression Coefficients of Value-Life Satisfaction Relationships for Individual Clusters



*p < .05. **p < .01. ***p < .01.

4.4: Discussion

All hypotheses were supported. Though it will be discussed in greater detail throughout this section, the clusters produced through analysis of domain importance (family, friends, leisure time, politics, work, religion) were remarkably similar to those of Inglehart and Welzel (2010) (hypothesis one). Second, all domain importance scores varied significantly across clusters (hypotheses two and three) and nations (hypothesis four and five). Finally, there were

significant cross-cluster differences in the relationships between values and life satisfaction (hypothesis six); these findings will be discussed in the limitations section of this chapter.

The literature reviewed in the second chapter revealed cross-national variation in both self-reported values and domain-life satisfaction relationships. As subjectivism presumes that values determine the predictors of wellbeing, it was necessary to demonstrate similar cross-national differences in the self-reported importance of these domains. Importantly, these differences persisted across comparisons of both absolute and relative values. Schwartz (2012) noted that "values are ordered by importance relative to one another.". This means that absolute differences in values would not be sufficient evidence to support subjectivism as the primary explanation for cross-national variation in domain-life satisfaction relationships. Furthermore, these differences were widespread, as evidenced by the post-hoc comparisons. As such, the primary goal of demonstrating cross-national variation in values was accomplished.

Similarities between the results of the between-groups cluster analysis (Table 4.2) and the cultural map developed by Inglehart and Welzel (2010) (figure 4.1) further validated this conclusion. As noted in the introduction to this chapter, they produced this map based on two value dimensions: Traditional/Secular-rational and Survival/Self-expression. Despite differences between these spectrums and domain importance, the clusters produced here were remarkably similar to those found by Inglehart and Welzel (2010).

The first cluster contained Algeria, Armenia, Egypt, Iraq, Jordan, Kyrgyzstan, Pakistan, Palestine, Philippines, Uzbekistan and Yemen. The majority of these countries are in the African-Islamic group, with Armenia being similar on both axes. The second cluster contained Ecuador, Ghana, Malaysia, Mexico, Trinidad and Tobago, Tunisia and Zimbabwe. Ecuador,

Ghana, Mexico, Trinidad, Tunisia and Zimbabwe are spread across the Latin American and African-Islamic clusters and are comparable in Traditional/Secular-Rational values.

The third cluster contained Azerbaijan, Morocco and Romania. Though these countries came from different groups, they were quite similar in both axis values. The fourth included Belarus, China, Netherlands, Russia, and Ukraine; all were comparable on the Traditional/Secular-Rational dimension, despite coming from three clusters.

The fifth contained Chile, Estonia, Slovenia, Spain and Uruguay. Chile, Spain, Slovenia and Uruguay are similar in terms of Survival/Self-Expression values, while Estonia is close to several of these countries on the Traditional/Secular-Rational spectrum.

The sixth cluster contained Cyprus, Kazakhstan, Poland, South Korea and Taiwan. South Korea and Taiwan belong to the Confucian group, which is close to the Catholic European cluster on both axes. Cyprus and Poland are typically placed in either the Catholic or South Asian clusters, which is close to the Confucian countries on Survival/Self-Expression values. Though Kazakhstan is in the African Islamic-Cluster, it is similar to the other countries on both dimensions.

The Seventh cluster contained Australia, Japan, New Zealand, Singapore, Sweden, Turkey and the United States. Australia, New Zealand and the United States are members of the English-speaking group, which is close to Sweden on both axes. Turkey and Japan are similar to these countries in terms of Traditional/Secular-Rational values.

The Eighth cluster contained Lebanon and Germany, which scored similarly on both value dimensions. The ninth included Columbia and Peru, both of which are members of the Latin American cluster. The tenth cluster contained Kuwait, Libya, Nigeria, Qatar and Rwanda, all members of the African-Islamic cluster.

While these clusters were not an exact reproduction of the cultural map, this was of little surprise given the value discrepancies mentioned above. Moreover, Inglehart and Welzel (2005) noted that using cluster analysis produced slightly different results: "An alternative but theoretical strategy would be to use one of the many available clustering techniques to identify the groups of nations and draw boundaries. We prefer to use the theoretical classifications proposed by Huntington and then to test for their explanatory power. Nevertheless, clustering techniques produce results that are roughly similar to those shown here." As such, the similarities in these clusters further validate the primary finding of this chapter: cross-national variation in the self-reported importance of different domains.

4.5: Limitations and Next Steps

Despite widespread significant differences, none of the reported effect sizes for values were especially large. This finding is reflected in both cluster and national value ranges: as a score of one indicates that a domain is “not at all important”, these findings suggest that, to some degree, these “goods” are universally valued. However, it is unclear what this means from a practical perspective. Given the association between values and wellbeing noted in section 2.2.4 and the introduction to this chapter, these findings indicate that domain-life satisfaction relationships should vary. As discussed throughout this thesis, universality in these relationships supports objectivism, while variation supports subjectivism. Unfortunately, it is unclear as to whether the reported differences in values are so substantial that basic “goods” are unable to account for a significant portion of the variance in life satisfaction. Though the regressions and subsequent z-score comparisons revealed variation in the relationships between all values and life satisfaction (hypothesis six), this analysis is not sufficient to draw conclusions about subjectivism and objectivism. This is because the World Values Survey neglects the appropriate

domain satisfaction information. As noted by Diener et al. (1985), subjective wellbeing involves an individual forming a global assessment of the quality of their life, according to their chosen criteria. Though values determine the criteria, they neglect subjective assessment.

The literature reviewed in the second chapter supported subjectivism through cross-national variation in values and domain-life satisfaction relationships. As subjectivism presumes that values determine the predictors of wellbeing, it was crucial to demonstrate differences in the self-reported importance of these domains. Taken together with the literature reviewed in the second chapter, these results support subjectivism. Given this, independent empirical investigation of cross-national variation in domain-life satisfaction relationships can commence so that conclusions can be drawn about universality in the predictors of wellbeing.

5: Cross-National Variation in the Domain-Life Satisfaction Relationships: Eurobarometer

5.1: Introduction

The results of the previous chapter revealed significant cross-national variation in the self-reported importance of different life domains, results which were further validated through comparison to the cultural map developed by Inglehart and Welzel (2010). These findings are in line with the literature reviewed in the second chapter, which revealed cross-national variation in self-reported values and domain-life satisfaction relationships. Subjectivism presumes that values determine the predictors of wellbeing, an association that is supported through empirical investigation (section 2.2.4). As such, it was crucial to demonstrate variation in the self-reported importance of life domains before addressing domain-life satisfaction relationships cross-nationally.

Data from the Eurobarometer was used to investigate this issue and assess universality in the predictors of wellbeing. As noted in section 2.5.2, it is one of the few multinational databases that addresses domain satisfaction. Investigation of subjectivism and objectivism necessitates an examination of domain-life satisfaction relationships. Domains represent the "goods" that objectivists propose to have inherent value, while life satisfaction embodies the desire fulfilment of subjectivism. Though analysis in the previous chapter revealed significant variation in the relationships between values and life satisfaction, this was not sufficient evidence to draw conclusions about the relative importance of life domains. This is because life satisfaction involves assessment of self-chosen criteria (Diener et al., 1985). Though the criteria appear to be determined by values (section 2.2.4), the strength of these associations should be determined by satisfaction if subjectivism is correct.

As such, the goal of this chapter is to determine whether domain-life satisfaction relationships vary. This will be done through both cross-cluster and cross-national comparisons; the same analysis strategy employed in the previous chapter. First, clustering techniques were used to create groupings based on domain-life satisfaction relationships. Second, the clusters developed by Inglehart and Welzel (2010) were applied to the Eurobarometer countries. Both sets of clusters and individual countries were compared. The results allowed for conclusions to be drawn about the respective merits of subjectivism and objectivism in wellbeing research: variation in domain-life satisfaction relationships supports the former, while universality supports the latter. In order to draw these conclusions, basic socio-demographic factors must be controlled as evidence indicates that they influence value priorities (Meuleman et al., 2012). If neglected, variation in domain-life satisfaction relationships might reflect differences in socio-structural factors, inhibiting the ability to draw conclusions about causation. For further discussion, refer to sections 2.4.4 and 4.1; these variables were also controlled in the previous chapter. Based on analysis of the World Values Survey and the cross-national differences noted in the second chapter, the following hypotheses were developed:

Hypothesis One: There will be significant cross-cluster variation in domain-life satisfaction relationships (statistical clusters).

Hypothesis Two: Direct cross-cluster comparison of the predictive power of domain satisfaction scores will reveal significant differences (statistical clusters).

Hypothesis Three: There will be significant cross-cluster variation in domain-life satisfaction relationships (Inglehart and Welzel (2010) clusters).

Hypothesis Four: Direct cross-cluster comparison of the predictive power of domain satisfaction scores will reveal significant differences (Inglehart and Welzel (2010) clusters).

Hypothesis Five: There will be significant cross-national variation in domain-life satisfaction relationships.

Hypothesis Six: Cross-national comparisons will reveal that no domains predict life satisfaction universally.

Hypothesis Seven: Direct cross-national comparison of the predictive power of domain satisfaction scores will reveal significant differences.

5.2: Methods

5.2.1: Procedure.

5.2.1.1: Questionnaire design.

The 62.2 Eurobarometer was designed to assess opinions about "wide-ranging institutional and political changes" which occurred during 2004. As such, there were four major sections: life in the European Union, information and identity; foreign and security policy; and the European Union's future.

5.2.1.2: Recruitment.

Data were collected from the following nations: Austria; Belgium; Bulgaria; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Great Britain; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Northern Ireland; Poland; Portugal; Romania; Slovakia; Slovenia; Spain; Sweden. Multi-stage, random probability sampling was used to recruit participants. The first stage consisted of selecting primary sampling units from different regions within each country based on population size. These were chosen systematically while taking the degree of urbanisation into consideration. Residents were then selected from these primary sampling units, and decisions were made based on clusters of

addresses. From selected homes, a single respondent was chosen at random using the closest birthday rule.

The interviews were conducted in person with standardised questionnaires while computer-assisted personal interviews (CAPI) were used when feasible. Only a single interview was conducted for each household, with the respondent being required to have an adequate grasp of the national language. All interviews were carried out between the 2nd of October and 8th of November, 2004. The standard sample size was 1,000 respondents per country, with several exceptions. While 1,000 interviews were conducted in the United Kingdom, an additional 300 participants were selected from Northern Ireland. West and East Germany were also split, with 1,000 and 500 interviews being conducted respectively. Five hundred interviews were carried out in Luxembourg, Cyprus and Malta. These numbers represent the minimum effective samples that were required; in practice, they were higher.

5.2.1.3: Interview structure.

The interview began with questions about trust in, and support of, various components of the European Union. The next items focused on agricultural policy; specifically, the effectiveness of and direction of policies related to the European Union. The third dealt with developmental aid; questions focused on the role that the European Union and individual countries should play on the international stage, with an additional focus on the Millennium Development Goals. The fourth major section of the survey dealt with social capital and was much broader: domain and life satisfaction, the importance of different aspects of life and personal networks were all assessed. The final section covered technology in the workplace. The questions were focused on the use of technology in the professional and personal lives of respondents, in addition to any related training they had received. Standard socio-demographic

information was also recorded, including, but not limited to age, gender, nationality, origin of birth (personal and parental), marital status, left-to-right political placement, occupation, age when they stopped full-time education, household composition and region of residence.

5.2.2: Materials.

Single-item questions were used to assess satisfaction in both domains and life (For each of the following, please tell me if you are very satisfied, fairly satisfied, not very satisfied or not at all satisfied?"). The participants responded using a four point Likert-type scale, with one being very satisfied and four being not at all satisfied. Satisfaction was assessed for the following items: your life in general, your own health, your family life, your social life, your relationship with the people you work with, your personal safety, your financial situation, your home, housing, your neighbourhood, the quality of the tap water, the air quality, your current job and the way democracy works. These questions are reported in table 5.1.

Single item questions were also used to assess the relevant socio-demographic variables: age, gender, marital status, occupation and age at which education ended. These structural factors influence value priorities (Meuleman et al., 2012) and are correlates of life satisfaction that have been controlled in secondary analysis of multinational databases (Oishi et al., 2007).While this wave of the Eurobarometer contained hundreds of questions, many of them were political in nature and largely irrelevant to the content of this thesis.

Table 5.1: Domain Satisfaction Questions Assessing Life, Health, Family, Social Life, Work Relationships, Personal Safety, Financial Situation, Home, Neighbourhood, Tap Water, Air Quality, Job and Democracy

For each of the following, please tell me if you are very satisfied, fairly satisfied, not very satisfied or not at all satisfied?				
	Very satisfied	Fairly satisfied	Not very satisfied	Not at all satisfied
Your life in general	1	2	3	4
Your own health	1	2	3	4
Your family life	1	2	3	4
Your social life	1	2	3	4
Your relationship with people you work with	1	2	3	4
Your personal safety	1	2	3	4
Your financial situation	1	2	3	4
Your home, housing	1	2	3	4
Your neighbourhood	1	2	3	4
The quality of the tap water	1	2	3	4
The air quality	1	2	3	4
Your current job	1	2	3	4
The way democracy works in (OUR COUNTRY)	1	2	3	4

5.2.3: Participants.

The original sample contained data from 27,008 participants, with samples per country as follows: France 1,004; Belgium 1,011; the Netherlands 1,016; West Germany 1,001; East Germany 532; Italy 1,005; Luxembourg 510; Denmark 1,011; Ireland 1,000; Great Britain 1,059; Northern Ireland 307; Greece 1,000; Spain 1,045; Portugal 1,000; Finland 1,028; Sweden 1,009; Austria 1,030; Cyprus (Republic) 500; Czech Republic 1,120; Estonia 1,000; Hungary 1,000;

Latvia 1,000; Lithuania 1,004; Malta 500; Poland 1,000; Slovakia 1,307; Slovenia 1,000; Bulgaria 1,009; and Romania 1,000. The average age was 47.18 (SD = 17.931), and 12,039 were male while 14,969 were female.

However, 14,120 of the participants were unemployed, studying or retired. To avoid the loss of pertinent information, individuals who were not working at the time of data collection were eliminated. In the second chapter it was noted that potential participants should not be excluded at the risk of creating a biased sample. This was in response to Mallard et al. (1997), who only examined individuals with living partners. Work is a ubiquitous component of life that, for all intents and purposes, cannot be avoided in the long term. On the other hand, an individual who feels strongly about living alone can do so. As such, there was no concern over the creation of a biased sample in this instance.

Listwise deletion was used to address missing data. As noted in section 4.2.4, this is accepted practice when analysing large samples with minimal missing data (Cheema, 2014; H. Kang, 2013). Supporting this point, listwise deletion has been used in past analysis of the Eurobarometer (Fuchs & Klingemann, 2011; Voicu & Bartolome Peral, 2014). The remaining sample consisted of 12,888 participants: 6,530 men and 6,358 women. Ages ranged from 15 to 92, with an average of 41.423 (SD=11.671). Breakdowns for individual countries can be seen in Appendices 5.2 (age) and 5.3 (gender).

5.2.4: Planned analyses.

Satisfaction with health, family, social life, personal safety, financial situation, home life and job were selected for analysis. These domains were chosen for two reasons. First, they are ubiquitous components of human life. Second, when aggregated, they strongly correlated with life satisfaction; more so than any other combination of domains.

A hierarchical multiple regression was run using interaction terms developed from the unstandardized domain-life satisfaction regression coefficients and cluster to analyse cross-cluster variation in domain-life satisfaction relationships. The regression coefficients came from the cross-national comparisons used to test hypotheses five, six and seven, which are described in the ensuing paragraph. Two clustering methods were selected for comparison. First, a between groups linkage analysis was run using the same strategy detailed in the previous chapter (2.4.2). However, unequal group sizes meant that between-cluster comparisons could not be made. To address this issue, a Ward's method cluster analysis was run; it is biased towards creating groups of equal sizes (Ferreira & Hitchcock, 2009). These clusters were used to test the first hypothesis. The second interaction regression was run using the groups developed by Inglehart and Welzel (2010), as detailed in chapter four. This was done to test the third hypothesis. For both regressions, the interaction terms were developed using the method outlined by Tabachnick and Fidell (2013). Socio-demographic variables (age, gender, marital status, employment, education) were introduced in the first step. In the second and third blocks, domain satisfaction interaction terms were entered. Life satisfaction was the outcome variable. One hierarchical multiple regression analysis was run per cluster to better understand the findings of both interactions (hypotheses one and three). Variables were entered in the same order: socio-demographic information in the first block and domain satisfaction scores in the second. Z-scores computed from the unstandardized beta coefficients and standard error terms of these analyses were used to make direct cross-cluster comparisons (hypotheses two and four). This methodology is outlined by Paternoster et al. (1998). As the goal was to detect variation, clusters were chosen for comparison on the basis of apparent differences.

One hierarchical multiple regression analysis was run per country to examine cross-national variation in domain-life satisfaction relationships (hypotheses five and six). Due to the number of countries, the results of an interaction regression would not allow for meaningful cross-national comparisons. Given its inability to contribute to testing of the hypotheses, this analysis was not performed. The same socio-demographic variables (age, gender, marital status, occupation and age at which education ended) were entered in the first block of the regression analysis. In the second block, the same domain satisfaction scores (health, family, social life, personal safety, financial situation, home life and job) were entered. To test the seventh hypothesis and directly compare these results, one z-score was computed from the unstandardized beta coefficients and standard error terms for each domain. Once again, countries were chosen for comparison on the basis of apparent differences.

Power analysis for a multiple regression with 12 predictors was conducted in G*Power to determine a sufficient sample size using an alpha of 0.05, a power of 0.80, and a medium effect size ($f2 = 0.15$) (Faul et al., 2013). Based on the aforementioned assumptions, the desired sample size is 127. All countries and clusters exceeded this value (see appendix 5.2).

Model assumptions for all regression analyses were assessed using the protocol outlined by Field (2013). Multicollinearity was not a concern as variance inflation factors were well below 10 while all tolerance factors exceeded 0.1 All Durbin-Watson values fell within the acceptable range of 1.5-2.5, indicating that the assumption of independent errors had been met. Examination of the scatterplots of standardised residuals revealed that neither the linearity or homoscedasticity assumptions had been violated. Both the histograms and normal P-P plots of the standardised residuals indicated that, generally, errors approximated a normal distribution. Though there was evidence of minor deviation from this pattern in several cases, the large

sample sizes alleviated associated concerns. Lumley et al. (2002) concluded that samples of less than 100 were typically large enough to ensure robustness when the assumption of normality had been violated. As all countries and clusters exceeded this value (see appendix 5.2), these analyses were deemed appropriate for all groupings.

5.3: Results

The first regression (IV: Ward's Method Cluster-Domain Satisfaction Interaction Terms, DV: Life Satisfaction) revealed four significant interactions: family ($b = -.025$, $t(11905) = -4.476$, $p < .001$), social ($b = .015$, $t(11905) = 2.691$, $p = .007$), personal safety ($b = .012$, $t(11905) = 2.538$, $p = .011$) and financial satisfaction ($b = .017$, $t(11905) = 3.490$, $p < .001$). The results of the individual Ward's method cluster regression analyses (IVs: Domain Satisfaction Scores, DV: Life satisfaction) are summarized in table 5.2. Each domain predicted life satisfaction across all clusters, with the exception of personal safety; this association was non-significant in the fifth cluster ($b = .030$).

The z-scores computed from these regression analyses revealed significant associations across all domains. Health satisfaction accounted for a greater proportion of the variance in life satisfaction in the fifth cluster (Beta = 0.224, SE = 0.026) when compared to the first (Beta = 0.086, SE = 0.015); $z = 4.7$, $p < .001$; family satisfaction accounted for a greater proportion of the variance in life satisfaction in the first cluster (Beta = 0.216, SE = 0.013) when compared to the fifth (Beta = 0.113, SE = 0.027); $z = 3.43$, $p < .001$; social satisfaction accounted for a greater proportion of the variance in life satisfaction in the third cluster (Beta = 0.275, SE = 0.017) when compared to the second (Beta = 0.114, SE = 0.021); $z = 5.96$, $p < .001$; personal satisfaction accounted for a greater proportion of the variance in life satisfaction in the fourth cluster (Beta = 0.135, SE = 0.019) compared to the first (Beta = 0.036, SE = 0.011); $z = 4.51$, p

< .001; financial satisfaction accounted for a greater proportion of the variance in life satisfaction in the third cluster (Beta = 0.289, SE = 0.02) when compared to the fourth (Beta = 0.075, SE = 0.013); z = 8.97, p < .001; home satisfaction accounted for a greater proportion of the variance in life satisfaction in the second cluster (Beta = 0.13, SE = 0.02) when compared to third (Beta = 0.041, SE = 0.019); z = 3.23, p < .001; and job satisfaction accounted for a greater proportion of the variance in life satisfaction in the third cluster(Beta = 0.127, SE = 0.014) compared to the fifth (Beta = 0.03, SE = 0.023); z = 3.60, p < .001. These results are shown in figure 5.1.

Table 5.2: Summary of Unstandardized Regression Coefficients for Individual Cluster (Ward's Method) Domain-Life Satisfaction Relationships

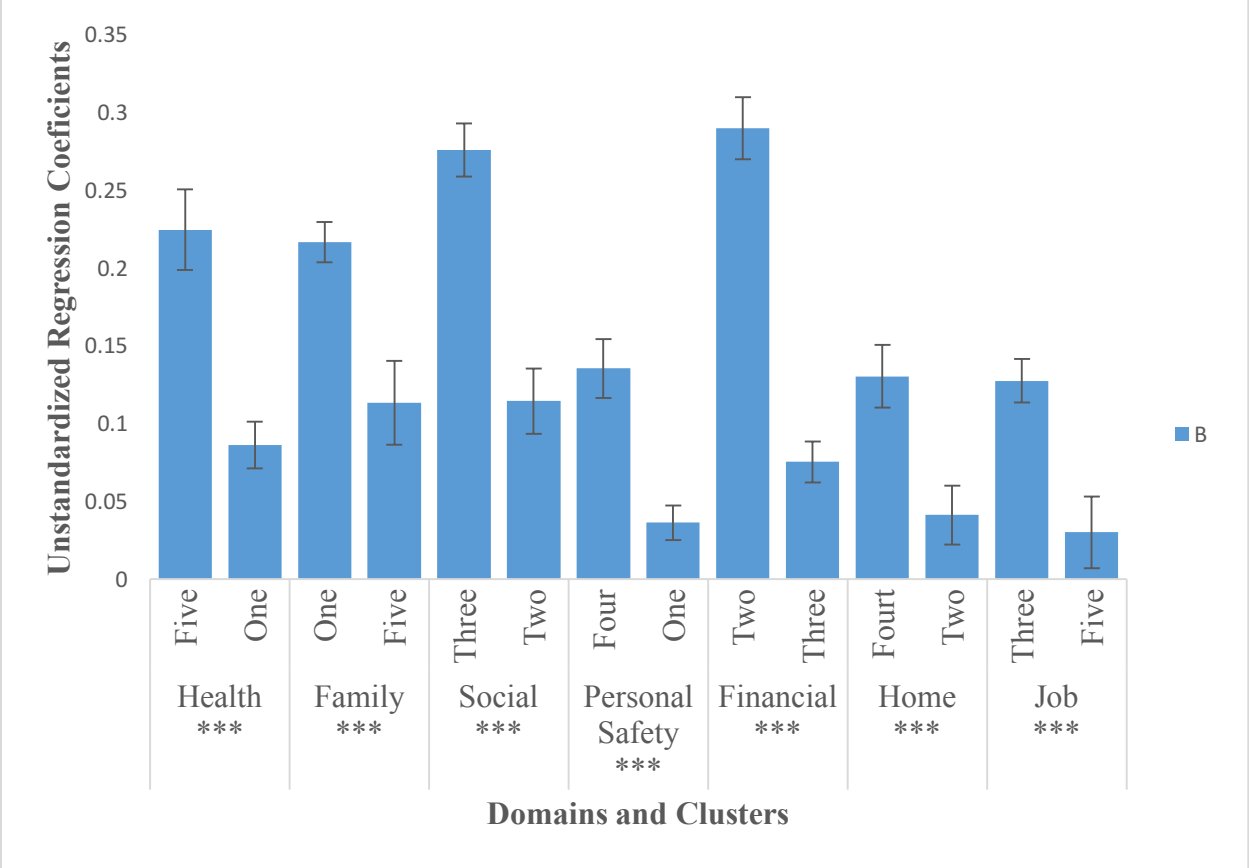
Cluster	Countries	Health	Family	Social	Safety	Financial	Home	Job
1	Austria Czech Republic Great Britain Ireland Poland Slovenia Sweden	0.15 ***	0.216 ***	0.168 ***	0.036 **	0.126 ***	0.084 ***	0.082 ***
2	Estonia Germany East Germany West Greece Hungary	0.115 ***	0.194 ***	0.114 ***	0.049 **	0.289 ***	0.041 *	0.065 **
3	Belgium Denmark Italy Spain Netherlands	0.086 ***	0.167 ***	0.275 ***	0.1***	0.075 ***	0.113 ***	0.127 ***
4	Cyprus Finland Latvia Luxembourg Romania	0.149 ***	0.196 ***	0.15 ***	0.135***	0.162 ***	0.13 ***	0.125 ***
5	Bulgaria Lithuania Portugal Malta	0.224 ***	0.113 ***	0.239*	0.054**	0.26 ***	0.055*	0.03

*p < .05. **p < .01. ***p < .01.

Larger regression coefficients indicate more powerful relationships between the variable and life

satisfaction.

Figure 5.1: Histogram Depicting Z-Score Comparisons Computed From the Unstandardized Regression Coefficients of Domain-Life Satisfaction Relationships for Individual Clusters (Ward's Method)



*p < .05. **p < .01. ***p < .01.
Larger regression coefficients indicate more powerful relationships between the variable and life satisfaction.

The second cluster interaction regression (IVs: Inglehart and Welzel (2010) Cluster-Domain Satisfaction Interaction Terms, DV: Life Satisfaction) revealed four significant interactions: family (b = -.014, t(11905) = -3.124, p = .002), financial (b = .017, t(11905) = -3.873, p < .001) and home satisfaction (b = .011, t(11905) = -2.468, p = .014). The results of the individual Inglehart and Welzel (2010) cluster regression analyses (IVs: Domain Satisfaction Scores, DV: Life Satisfaction) are summarized in table 5.3. Health, family, social, financial situation and home satisfaction predicted life satisfaction across all clusters. The relationship

between safety and life satisfaction was non-significant in the English speaking (b = -.019) and South Asian (b = -.007) clusters; job satisfaction was non-significant in the South Asian (b = .055) cluster.

The z-scores computed from these regression analyses revealed significant variation in six of the seven domains: health satisfaction accounted for a greater proportion of the variance in life satisfaction in the Orthodox cluster (Beta = 0.214, SE = 0.037) when compared to the South Asian cluster(Beta = 0.11, SE = 0.034); z = 2.07, p = 0.019; family satisfaction accounted for a greater proportion of the variance in life satisfaction in the South Asian cluster (Beta = 0.258, SE = 0.038) when compared to the Orthodox cluster (Beta = 0.071, SE = 0.035); z = 3.62, p < .001; social satisfaction accounted for a greater proportion of the variance in life satisfaction in the Orthodox cluster (Beta = 0.207, SE = 0.034) when compared to the Baltic cluster (Beta = 0.121, SE = 0.023); z = 2.095, p = 0.018; personal safety satisfaction accounted for a greater proportion of the variance in life satisfaction in the Protestant Europe cluster (Beta = 0.087, SE = 0.013) when compared to the South Asian clusters(Beta = -0.007, SE = 0.032); z = 2.721, p = 0.003; financial satisfaction accounted for a greater proportion of the variance in life satisfaction in the Baltic cluster (Beta = 0.235, SE = 0.022) when compared to the English Speaking cluster (Beta = 0.101, SE = 0.021); z = 4.405, p < .001; and home satisfaction accounted for a greater proportion of the variance in life satisfaction in the Baltic cluster (Beta = 0.167, SE = 0.021) when compared to the Catholic Europe cluster. (Beta = 0.062, SE = 0.012); z = 3.100, p = .001. These findings are visualized in figure 5.2.

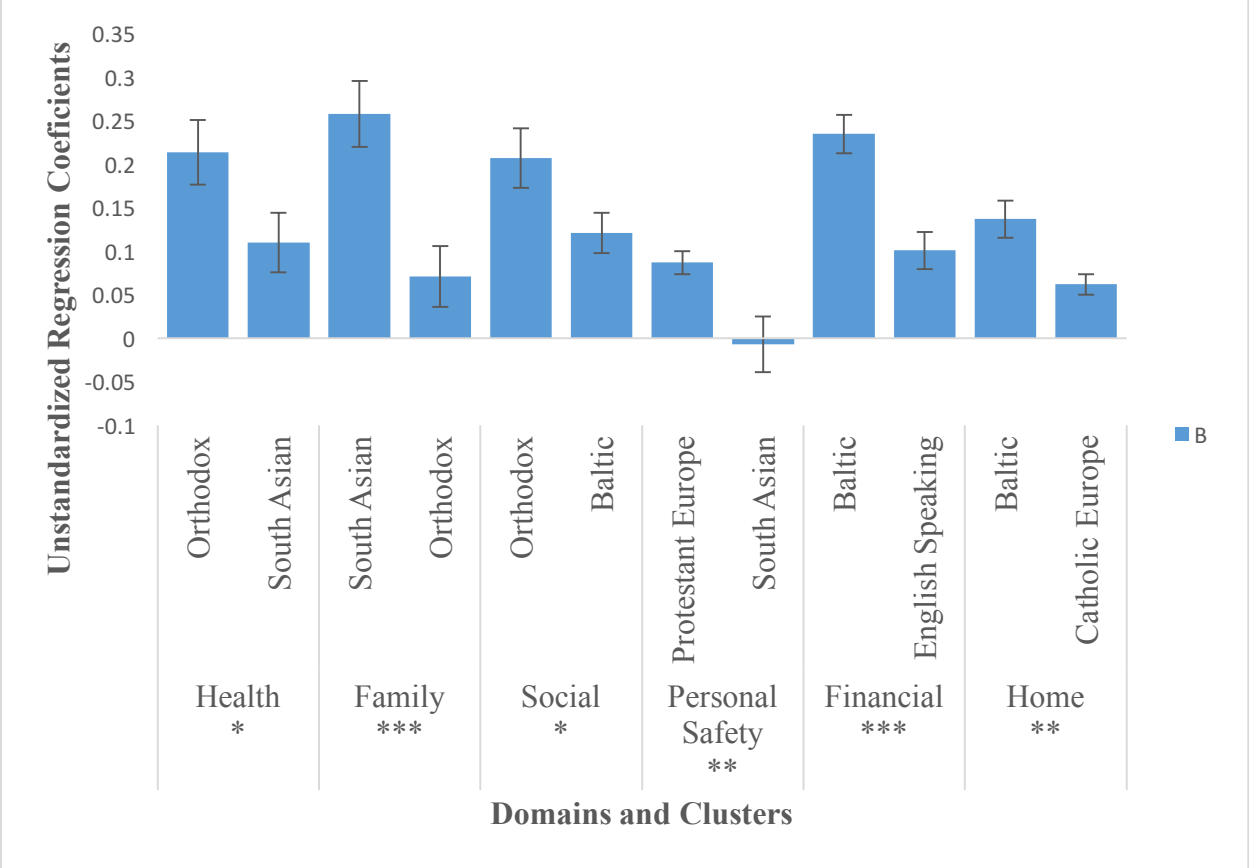
Table 5.3: Summary of Unstandardized Regression Coefficients for Individual Cluster (Inglehart and Welzel (2010)) Domain-Life Satisfaction Relationships

Cluster	Countries	Health	Family	Social	Safety	Financial	Home	Job
English Speaking	Great Britain Ireland Northern Ireland	0.167 **	0.215 ***	0.153 ***	0.019	0.101 ***	0.092 ***	0.116 ***
Catholic Europe	Czech Republic Slovenia France Slovakia Greece Hungary Belgium Italy Spain Luxembourg Portugal Malta	0.128 ***	0.2 ***	0.187 ***	0.068 ***	0.172 ***	0.062 ***	0.088 ***
Protestant Europe	Austria Sweden Germany East Germany West Denmark Netherlands Finland	0.141 ***	0.188 ***	0.196 ***	0.087 ***	0.119 ***	0.09 ***	0.087***
Orthodox	Romania Bulgaria	0.214 ***	0.071 *	0.207 ***	0.095 **	0.269 ***	0.086 **	0.061 *
Baltic	Estonia Latvia Lithuania	0.124 ***	0.158 ***	0.121 ***	0.059 **	0.235 ***	0.137 ***	0.06 **
South Asia	Poland Cyprus	0.11 ***	0.258 ***	0.193 ***	0.007	0.081 *	0.181 ***	0.055

*p < .05. **p < .01. ***p < .01.

Larger regression coefficients indicate more powerful relationships between the variable and life satisfaction.

Figure 5.2: Histogram Depicting Z-Score Comparisons Computed From the Unstandardized Regression Coefficients of Domain-Life Satisfaction Relationships for Individual Clusters (Inglehart and Welzel (2010))



*p < .05. **p < .01. ***p < .01.
Larger regression coefficients indicate more powerful relationships between the variable and life satisfaction.

The results of the individual country regression analyses (IVs: Domain Satisfaction Scores, DV: Life Satisfaction) are summarized in table 5.4 and fully reported in appendices 5.4 and 5.5. Health, family and social satisfaction predicted life satisfaction across 23 nations. Safety satisfaction predicted life satisfaction in nine countries. Financial satisfaction predicted it across 24 nations, while home and job satisfaction predicted it across 17 and 18 nations, respectively.

Table 5.4: Summary of Unstandardized Regression Coefficients for Individual Country Domain-Life Satisfaction Relationships

Nation	Health	Family	Social	Safety	Financial	Home	Job
France	0.071 *	0.267 ***	0.172 ***	0.058	0.123 ***	0.055 *	0.048 *
Belgium	0.063 *	0.156 ***	0.252 ***	0.049	0.082 *	0.124 **	0.159 ***
The Netherlands	0.119 ***	0.101 **	0.277 ***	0.092 **	0.061 *	0.153 ***	0.073 **
Germany West	0.176 ***	0.212 ***	0.036	0.056	0.236 ***	0.073 *	0.068 *
Italy	0.056	0.222 ***	0.239 ***	0.086 **	0.118 ***	0.068 *	0.144 ***
Luxembourg	0.181 **	0.291 ***	0.125 *	0.16 **	0.036	0.035	0.134 *
Denmark	0.09 **	0.228 ***	0.268 ***	0.139 ***	0.053	0.067	0.115 ***
Ireland	0.136 **	0.271 ***	0.127 ***	0.017	0.13 ***	0.038	0.13 **
Great Britain	0.184 ***	0.18 ***	0.182 ***	0.028	0.097 **	0.111 **	0.105 **
Northern Ireland	0.148	0.094	0.13 *	0.005	0.007	0.237 *	0.161 ***
Greece	0.145 **	0.28	0.122	0.073	0.278 ***	-0.016	0.049
Spain	0.1 *	0.075	0.298 ***	0.084 *	0.02	0.112 **	0.183 ***
Portugal	0.277 ***	0.146 *	0.252 ***	0.041	0.233 ***	0.027	0.147 **
Germany East	0.132	0.156 *	0.098	0.026	0.303 ***	-0.035	0.077
Finland	0.162 ***	0.279 ***	0.07	0.092*	0.023	0.122 ***	0.11 **
Sweden	0.155 ***	0.205 ***	0.189 ***	0.048	0.106 ***	0.099 **	0.088 **
Austria	0.135 ***	0.162 ***	0.216 ***	0.072 *	0.101 **	0.083 *	0.101 **
Cyprus (Republic)	0.2 **	0.255 ***	0.102	0.073	0.143 *	0.186 **	0.117
Czech Republic	0.142 ***	0.209 ***	0.094 **	0.063	0.072 *	0.069 *	0.139 ***
Estonia	0.012	0.177 ***	0.046	0.007	0.247 ***	0.079 *	0.143 **
Hungary	0.134 **	0.136 **	0.168 **	0.01	0.331 ***	-0.027	-0.002

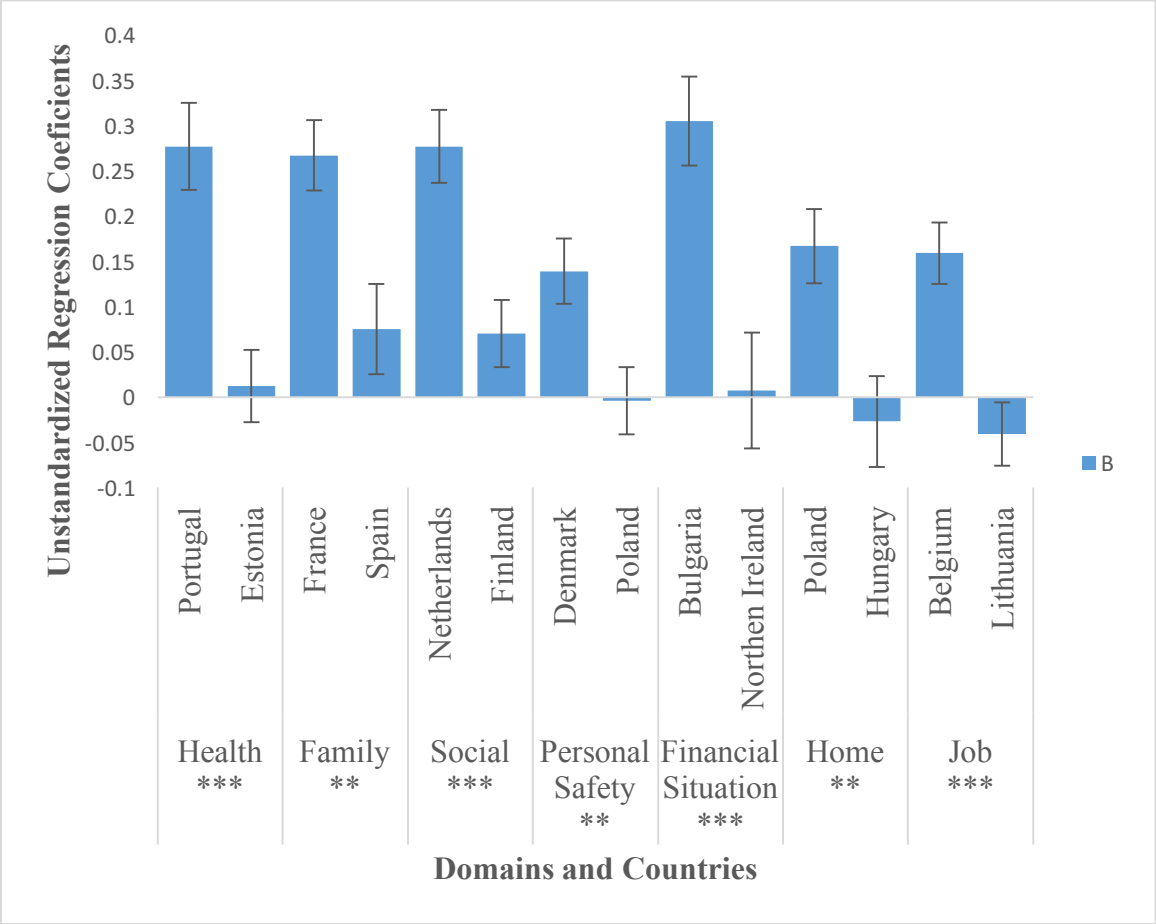
Nation	Health	Family	Social	Safety	Financial	Home	Job
Latvia	0.125 **	0.155 ***	0.133 **	0.112 **	0.245 ***	0.149 ***	0.069
Lithuania	0.216 ***	0.149 ***	0.249 ***	0.063	0.192 ***	0.154 ***	-0.041
Malta	0.168	-0.103	0.295 ***	0.103	0.168 *	-0.013	0.019
Poland	0.074	0.243 ***	0.213 ***	-0.004	0.082 *	0.167 ***	0.054
Slovakia	0.138 ***	0.239 ***	0.148 ***	0.021	0.164 ***	0.017	0.032
Slovenia	0.223 ***	0.087	0.136 **	0.047	0.106 **	0.095	0.069
Bulgaria	0.254 ***	0.036	0.221 ***	0.041	0.305 ***	0.082	0.009
Romania	0.162 **	0.125 **	0.182 ***	0.141 **	0.198 ***	0.096	0.138 **

*p < .05. **p < .01. ***p < .01.
Larger regression coefficients indicate more powerful relationships between the variable and life satisfaction.

Each of the z-scores revealed significant differences: health satisfaction accounted for a greater proportion of the variance in life satisfaction in Portugal (Beta = 0.277, SE = 0.048) when compared to Estonia (Beta = 0.012, SE = 0.04); z = 4.24, p < .001; family satisfaction accounted for a greater proportion of the variance in life satisfaction in France (Beta = 0.267, SE = 0.039) when compared to Spain (Beta = 0.075, SE = 0.05); z = 3.027, p = .001; social satisfaction accounted for a greater proportion of the variance in life satisfaction in the Netherlands (Beta = 0.277, SE = 0.04) when compared to Finland (Beta = 0.07, SE = 0.037); z = 4.204, p < .001; personal safety satisfaction accounted for a greater proportion of the variance in life satisfaction in Denmark (Beta = 0.139, SE = 0.036) when compared to Poland (Beta = -0.004, SE = 0.037); z = 2.77, p = .002; financial satisfaction accounted for a greater proportion of the variance in life satisfaction in Bulgaria (Beta = 0.305, SE = 0.007) when compared to Northern Ireland (Beta = 0.007, SE = 0.064); z = 3.697, p < .001; home satisfaction accounted for a greater proportion of the variance in life satisfaction in Poland (Beta = 0.167, SE = 0.041) when compared to Hungary

(Beta = -0.027, SE = 0.05); z = 3.000, 0.00135; job satisfaction accounted for a greater proportion of the variance in life satisfaction in Belgium (Beta = 0.159, SE = 0.034) when compared to Lithuania (Beta = -0.041, SE = 0.035); z = 4.098, p < .001. These findings are shown in figure 5.3.

Figure 5.3: Histogram Depicting Z-Score Comparisons Computed From the Unstandardized Regression Coefficients of Domain-Life Satisfaction Relationships for Individual Countries



*p < .05. **p < .01. ***p < .01.
Larger regression coefficients indicate more powerful relationships between the variable and life satisfaction.

5.4: Discussion

While a complete breakdown of the cross-cluster and cross-national differences is beyond the scope of this thesis, the results of this chapter supported all hypotheses: there was significant

variation in domain-life satisfaction relationships. The Ward's method cluster interaction regression revealed significant main effects for four domains (family, social, personal safety and financial satisfaction) (hypothesis one). Z-scores computed from the unstandardized regression coefficients and standard error terms of individual cluster analyses revealed significant differences in all domains (hypothesis two). The Inglehart and Welzel (2010) cluster interaction regression revealed significant main effects across three domains (family, financial and home satisfaction) (hypothesis three). Z-scores computed from the unstandardized regression coefficients and standard error terms of individual cluster analyses revealed significant differences in six domains (health, family, social, personal safety, financial, and home) (hypothesis four). Regression analyses of individual countries revealed further differences, to the degree that no domains predicted life satisfaction universally (hypothesis five and six). Finally, z-score comparisons revealed significant differences in each domain (hypothesis seven). As expected, the between-cluster differences were less substantial than the cross-national comparisons. As the clusters contained pooled statistics, the cross-national analyses allowed for comparison of more extreme differences.

Though the domains (health, family, social life, personal safety, finances, home life, employment) addressed in this chapter do not come from a single objective list, they are ubiquitous components of human life. Despite this, none were universal predictors of life satisfaction, refuting the core premise of objectivism, and supporting subjectivism. This conclusion is further validated by the preceding chapters of this thesis, where independent empirical investigation and reviews of past research revealed significant cross-national variation in values and domain-life satisfaction relationships.

Given evidence supporting their association (section 2.2.4), inferences can be drawn about the values underlying domain-life satisfaction relationships. As such, these cross-national differences indicate variation in the importance of these seven "goods". The evidence presented here is arguably more substantial than that of the previous chapter, where differences in self-reported values were noted: there is some debate over whether explicit measures are sufficient for value assessment (Maio, 2010). Regardless, the primary evidence provided in this chapter is straightforward. There is significant cross-national variation in domain-life satisfaction relationships, to the degree that none were universal. This refutes the core premise of objectivism, supporting subjectivism and the notion that the predictors of wellbeing vary as a function of values.

5.5: Limitations

Empirically, the goal was to determine if there was cross-national variation in domain-life satisfaction relationships. The results of the systematic review in section 2.4 made it clear that detecting these differences necessitated an examination of as many countries as possible. Simply put, it makes little sense to compare countries that are unlikely to yield differences. As the overall goal of the thesis is to determine the relative merits of subjectivism and objectivism in wellbeing research, there were no constraints on cross-national comparisons. However, this chapter is not without limitations. While the Eurobarometer does account for a variety of relevant socio-demographic variables which are known to influence value priorities, it was not designed to be a comprehensive investigation of wellbeing. Thus, it should be of little surprise that it lacks data on a variety of potential covariates: the positive personality traits noted in section 2.5.3. The question remains as to whether this variation persists when these variables are controlled. This will be addressed in the next chapter.

6: Cross-National Variation in the Predictors of Wellbeing: Life Domains and Positive Personality Traits

6.1: Introduction

The previous chapter demonstrated cross-national variation in domain-life satisfaction relationships, as health, family, social life, personal safety, financial situation, home life and job satisfaction failed to predict wellbeing universally. Taken with the literature that was reviewed in the second chapter, these findings support subjectivism and the notion that the predictors of wellbeing vary as a function of values. This conclusion is further reinforced by the fourth chapter, where significant cross-national variation in the self-reported importance of life domains was noted.

However, there are other factors to consider. The largest limitation of the previous chapter was a lack of appropriate control variables. Though past research has shown that personality traits are powerful predictors of wellbeing (section 2.5.2), three particularly important constructs were discussed in the second chapter: self-esteem, optimism and self-efficacy. As noted in section 2.3.1, self-esteem is "the degree to which one's attitude toward, opinions about, and evaluation of one's own body, history, mental processes, and behaviour are positive."; self-efficacy is a person's belief "in their ability to influence events that affect their lives." and optimism is "a tendency to expect the best possible outcome and to dwell on positive aspects of situations" (Matsumoto, 2009). Williams (2014) found that these positive personality traits predicted wellbeing above beyond above and beyond stressors, social support, and negative coping; powerful predictors of wellbeing in their own right (Mark & Smith, 2012).

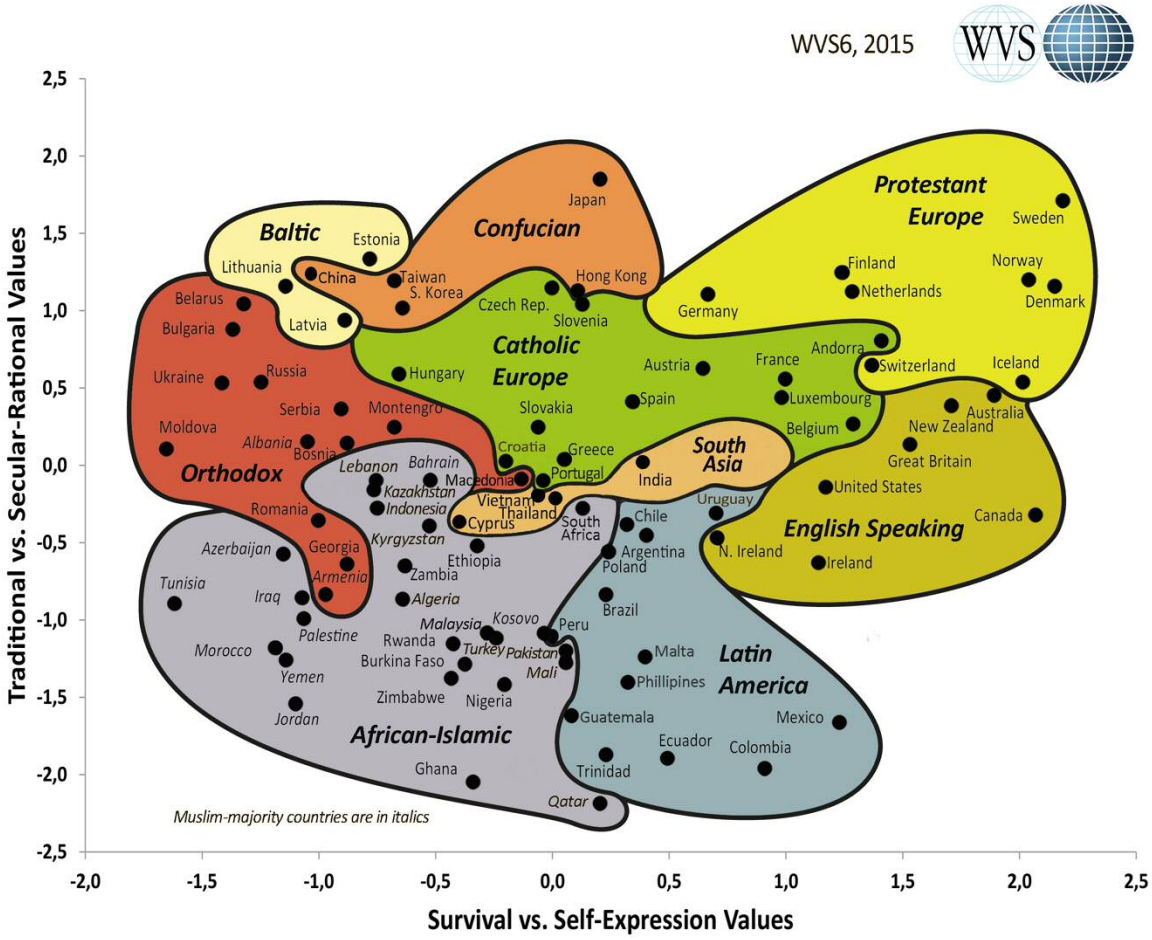
Though this alone justifies their inclusion, there is further theoretical validation. As noted in the first chapter, both top-down and bottom-up processes contribute to wellbeing. Thus far,

this thesis has focused on the latter. Values and domain satisfaction are bottom-up processes, wherein an individual assesses the conditions of their lives, aggregating across conditions to reach a final evaluation (Lucas, 2004). As these personality traits are positive attributions about one's self, future and abilities (Williams, 2014), they exemplify a top-down approach. Given this, they could influence both domain and life satisfaction judgements, explaining the results of the previous chapters. The question remains as to whether values, a bottom-up process, influence wellbeing while controlling for this top-down factor.

As such, the goal here is to extend the findings of the previous empirical chapter and determine whether there is evidence of universality in the predictors of wellbeing when personality traits are taken into account. This will be done through an examination of cross-national variation in domain-life satisfaction relationships while controlling for the positive personality traits detailed above (self-efficacy, self-esteem and optimism). Due to financial restrictions, data collection options were limited. Mechanical Turk was selected due its reputation for providing high quality data while being relatively inexpensive (Buhrmester et al., 2011). The decision was made to sample from The United States and India, as they are the most represented nationalities on Mechanical Turk (Ipeirotis, 2010). Unfortunately, recent evidence indicates that these nations share cultural similarities. For example, Inglehart and Welzel (2010) noted that they were nearly identical in Traditional/Secular-rational values and similar in terms of Survival/Self-expression values (figure 5.1). And while the United States is thought to be an exemplar of individualism (Hofstede, 1983), India appears to contains a mix of collectivistic and individualistic values (Sinha, Sinha, Verma, & Sinha, 2001). This is of particular relevance here, as modernization is associated with individualism (Hamamura, 2012; Rothwell & Hawdon, 2008). If the use of Mechanical Turk is taken to be a sign of modernization, then an Indian

sample drawn from it is likely to be relatively individualistic. This finding has important implications for not only domain-life satisfaction relationships, but positive personality traits as well. As noted in section 2.3, self-esteem predicted life satisfaction more robustly in individualistic nations.

Figure 6.1: Cultural Map of the World



Despite similarities, it should be clear that the cultural values of these nations are not identical. This is unsurprising, as evidence indicates that some traditional values persist in spite of modernization (Inglehart & Baker, 2000). As such, it is likely that domain-life satisfaction relationships will vary, even if the differences are not as large as those reported throughout this thesis. Two hypotheses were developed based on the reviewed literature and results of the previous chapters.

Hypothesis One: After controlling for positive personality traits, domain-life satisfaction relationships will vary cross-nationally. These differences will be smaller than those reported in the previous chapter.

Hypothesis Two: Direct cross-national comparison of domain-life satisfaction will reveal significant differences.

6.2: Method

6.2.1: Recruitment.

Participants were recruited through Mechanical Turk, an online crowd-sourcing website. Turk appears to provide reliable and valid data. For a detailed review, see Paolacci et al. (2010) and Buhrmester et al. (2011). Participants were linked to the Qualtrics website to complete the questionnaire. Based on pre-existing knowledge of Turk's user base (section 6.1), samples were collected from the United States and India.

6.2.2: Materials.

Domain (health, family, social, personal safety, financial situation, home life and employment) and life satisfaction were assessed with single-item questions identical in wording to those of 62.2 Eurobarometer, though a larger Likert-type scale was used to allow for greater sensitivity. Self-efficacy, self-esteem and optimism were measured with the same single-item scales used in the third chapter (Table 6.2). Finally, socio-demographic variables (age, gender, relationship status, education, occupation) were measured using single-item measures, as past research has shown they influence both value priorities (Meuleman et al., 2012) and wellbeing (Oishi et al., 2007).

Table 6.1: Domain Satisfaction Questions Assessing Life, Health, Family, Social Life, Personal Safety, Financial Situation, Home and Job

For each of the following, please tell me if you are very satisfied (1), satisfied (2), somewhat satisfied (3) neutral (4), somewhat dissatisfied (5), dissatisfied (6) or very dissatisfied (7)?							
	Very satisfied	Satisfied	Somewhat satisfied	Neutral	Somewhat dissatisfied	Dissatisfied	Very dissatisfied
Your life in general	1	2	3	4	5	6	7
Your own health	1	2	3	4	5	6	7
Your family life	1	2	3	4	5	6	7
Your social life	1	2	3	4	5	6	7
Your personal safety	1	2	3	4	5	6	7
Your financial situation	1	2	3	4	5	6	7
Your home, housing	1	2	3	4	5	6	7
Your current job	1	2	3	4	5	6	7

Table 6.2: Single Item Positive Personality Questions

Variable	Question
Self-efficacy	I am confident in my ability to solve problems that I might face in life (For example: I can usually handle whatever comes my way, If I try hard enough I can overcome difficult problems, I can stick to my aims and accomplish my goals)
Self-esteem	Overall, I feel that I have positive self-esteem (For example: On the whole I am satisfied with myself, I am able to do things as well as most other people, I feel that I am a person of worth)
Optimism	In general, I feel optimistic about the future (For example: I usually expect the best, I expect more good things to happen to me than bad, It's easy for me to relax)

6.2.3: Planned analyses.

One hierarchical multiple regression analysis was run per country to test the first hypothesis and analyse cross-national variation in the predictors of wellbeing. Socio-demographic variables were entered in the first block, positive personality traits in the second, and domain satisfaction in the third. Life satisfaction was the outcome variable. A priori Pearson correlations were run between all satisfaction items and personality traits for both samples. Z-scores computed from the unstandardized beta coefficients and standard error terms of these analyses were used to make direct comparisons and test the second hypothesis. This method was outlined by Paternoster et al. (1998) and used in the previous chapter. A hierarchical multiple regression was run using interaction terms developed from domain satisfaction scores and nationality to better understand these findings and relate them to the first hypothesis. Tabachnick and Fidell (2013) outlined the method used to create these variables. Multiple imputation was used to replace missing values as recent evidence indicates it is the most recommended approach (Baraldi & Enders, 2010). Socio-demographic variables (age, gender, employment, education, religion) and positive personality traits (self-efficacy, self-esteem and optimism) were introduced in the first step. In the second and third blocks, the domain satisfaction interaction terms were entered: health, family, social, personal safety, financial situation, home life and employment. Life satisfaction was the outcome variable. Power analysis for a multiple regression with 15 predictors was conducted in G*Power to determine a sufficient sample size using an alpha of 0.05, a power of 0.80, and a medium effect size ($f2 = 0.15$) (Faul et al., 2013). Based on the aforementioned assumptions, the desired sample size is 139. Both samples exceeded this value.

Model assumptions for all regression analyses were assessed using the protocol outlined by Field (2013). Multicollinearity was not a concern as variance inflation factors were well

below 10 while all tolerance factors exceeded 0.1 All Durbin-Watson values fell within the acceptable range of 1.5-2.5, indicating that the assumption of independent errors had been met. Examination of the scatterplots of standardised residuals revealed that neither the linearity or homoscedasticity assumptions had been violated. Both the histograms and normal P-P plots of the standardised residuals indicated that, generally, errors approximated a normal distribution. Though there was evidence of minor deviation from this pattern in several cases, the large sample sizes alleviated associated concerns. Lumley et al. (2002) concluded that samples of less than 100 were typically large enough to ensure robustness when the assumption of normality had been violated. As both samples exceeded this value, these analyses were deemed appropriate.

6.3: Results

The Pearson correlations for the American and Indian samples are reported in tables 6.3 and 6.4. Fisher transformations revealed that optimism ($z = 3.07$, $p = .001$) and self-esteem ($z = 2.44$, $p = .007$) were more strongly related to life satisfaction amongst Americans when compared to Indians.

Table 6.3: Summary of Life Satisfaction Pearson Correlations in American Participants

	LS	Health	Family	Social	Safety	Finn	Home	Job	Opt	S-Ef	S-Est
LS	1	.537**	.718**	.696**	.395**	.624**	.511**	.447**	.559**	.506**	.608**
Health	.537**	1	.537**	.507**	.457**	.322**	.356**	.480**	.373**	.320**	.444**
Family	.718**	.537**	1	.705**	.496**	.451**	.454**	.436**	.415**	.361**	.430**
Social	.696**	.507**	.705**	1	.443**	.494**	.358**	.439**	.479**	.491**	.565**
Safety	.395**	.457**	.496**	.443**	1	.201*	.444**	.409**	.212**	.285**	.233**
Fin	.624**	.322**	.451**	.494**	.201*	1	.536**	.554**	.371**	.312**	.435**
Home	.511**	.356**	.454**	.358**	.444**	.536**	1	.500**	.234**	.234**	.232**
Job	.447**	.480**	.436**	.439**	.409**	.554**	.500**	1	.349**	.336**	.369**
Opt	.559**	.373**	.415**	.479**	.212**	.371**	.234**	.349**	1	.724**	.797**
S-Ef	.506**	.320**	.361**	.491**	.285**	.312**	.234**	.336**	.724**	1	.789**
S-Est	.608**	.444**	.430**	.565**	.233**	.435**	.232**	.369**	.797**	.789**	1

LS=Life Satisfaction, Finn=Financial Opt=Optmism, S-Ef=Self-efficacy, S-Est=Self-esteem. *p < .05. **p < .01. SPSS does not denote significance at the p < .001 level when running correlational analysis with multiple imputation.

Table 6.4: Summary of Life Satisfaction Pearson Correlations in Indian Participants

	LS	Health	Family	Social	Safety	Finan	Home	Job	Opt	S-Ef	S-Est
LS	1	.683**	.685**	.657**	.621**	.646**	.650**	.700**	.263**	.371**	.395**
Health	.683**	1	.657**	.688**	.644**	.605**	.613**	.577**	.207*	.296**	.329**
Family	.685**	.657**	1	.651**	.619**	.614**	.608**	.664**	.215*	.304**	.301**
Social	.657**	.688**	.651**	1	.703**	.675**	.708**	.696**	.163	.308**	.314**
Safety	.621**	.644**	.619**	.703**	1	.587**	.640**	.643**	.178*	.273**	.219**
Fin	.646**	.605**	.614**	.675**	.587**	1	.751**	.668**	.150	.228**	.141
Home	.650**	.613**	.608**	.708**	.640**	.751**	1	.709**	.260**	.325**	.311**
Job	.700**	.577**	.664**	.696**	.643**	.668**	.709**	1	.179*	.279**	.297**
Opt	.263**	.207*	.215*	.163	.178*	.150	.260**	.179*	1	.389**	.419**
S-Ef	.371**	.296**	.304**	.308**	.273**	.228**	.325**	.279**	.389**	1	.483**
S-Est	.395**	.329**	.301**	.314**	.219**	.141	.311**	.297**	.419**	.483**	1

LS=Life Satisfaction, Finan=Financial, Opt=Optmism, S-Ef=Self-efficacy, S-Est=Self-esteem. *p < .05. **p < .01. SPSS does not denote significance at the p < .001 level when running correlational analysis with multiple imputation.

The results of the first set of regression analyses are reported in Tables 6.5 and 6.6. Z-scores computed from the unstandardized regression coefficients of these analyses revealed that home satisfaction accounted for a greater proportion of the variance in life satisfaction in India (Beta = 0.18, SE = 0.062) when compared to the United States. (Beta = -0.01, SE = 0.246); z = 1.70, p = .045. Similarly, job satisfaction accounted for a greater proportion of the variance in life satisfaction in India (Beta = 0.246, SE = 0.083) when compared to the United States (Beta = -0.117, SE = 0.062); z = 3.50, p < .001.This comparison is shown in figure 6.2. The addition of domain satisfaction resulted in significant increases in the predictive power of both models, as changes in R^2 ranged from 0.303 to 0.309 and 0.452 to 0.560 in the American and Indian participants, respectively. Both findings were significant at the p < .001 level. Differences in these changes are likely a function of positive personality traits, which were added in the second model. They accounted for a greater proportion of the variance in life satisfaction amongst Americans (R^2 = 0.407-0.415, ΔR^2 = 0.375-0.382) when compared to Indians (R^2 = 0.173-0.182, ΔR^2 = 0.170-0.179).

Table 6.5: Summary of Regression Analysis for Variables (Positive Personality Traits and Domain Satisfaction Scores) Predicting Life Satisfaction in American Participants

Variable	**Model 1**		**Model 2**		**Model 3**	
	B	SE	B	SE	B	SE
Age	0.012	0.015	0.004	0.013	0.001	0.009
Gender	-0.008	0.283	-0.089	0.261	-0.128	0.179
Relationship	0.231	0.137	0.21	0.127	0.086	0.085
Education	0.068	0.155	0.025	0.142	0.017	0.097
Occupation	-0.016	0.013	-0.004	0.012	-0.014	0.008
Optimism	-	-	0.059	0.082	0.018	0.054
Self-Efficacy	-	-	0.165	0.081	0.036*	0.054
Self-Esteem	-	-	0.243**	0.083	0.109	0.058
Health	-	-	-	-	0.226**	0.08
Family	-	-	-	-	0.147	0.08
Social	-	-	-	-	0.007	0.093
Personal-Safety	-	-	-	-	0.092	0.092
Financial	-	-	-	-	0.155*	0.076
Home	-	-	-	-	-0.01	0.093
Job	-	-	-	-	0.246**	0.083
R^2	0.032		0.407-0.415		0.717-0.725	
ΔR^2	0.064		0.375-0.382***		0.303-0.309***	
F	1.981		13.792-14.229***		26.217-27.125***	

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

Larger regression coefficients indicate more powerful relationships between the variable and life satisfaction. SPSS does not provide pooled statistics for all regression variables when multiple imputation is used. In these instances, ranges are listed.

Table 6.6: Summary of Regression Analysis for Variables (Positive Personality Traits and Domain Satisfaction Scores) Predicting Life Satisfaction in Indian Participants

Variable	**Model 1**		**Model 2**		**Model 3**	
	B	SE	B	SE	B	SE
Age	-0.022	0.015	-0.038**	0.012	-0.027**	0.009
Gender	-0.061	0.296	0.24	0.237	0.35*	0.165
Relationship	0.397**	0.136	0.28**	0.108	0.145	0.078
Education	0.044	0.125	0.115	0.098	0.023	0.07
Occupation	-0.015	0.012	-0.007	0.01	-0.005	0.007
Optimism	-	-	0.126	0.078	0.051	0.055
Self-Efficacy	-	-	0.036	0.088	0.038	0.062
Self-Esteem	-	-	0.286***	0.079	0.117	0.06
Health	-	-	-	-	0.111	0.064
Family	-	-	-	-	0.286**	0.068
Social	-	-	-	-	0.167*	0.07
Personal-Safety	-	-	-	-	-0.003	0.077
Financial	-	-	-	-	0.207**	0.065
Home	-	-	-	-	0.18**	0.062
Job	-	-	-	-	-0.116	0.062
R^2	.015		0.173-0.182		0.641-0.643	
ΔR^2	.049		0.170-0.179***		0.452-0.560***	
F	1.427		4.727-4.979***		18.051-18.152***	

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

Larger regression coefficients indicate more powerful relationships between the variable and life satisfaction. SPSS does not provide pooled statistics for all regression variables when multiple imputation is used. In these instances, ranges are listed.

Figure 6.2: Histogram Depicting Standardized Beta Weights of Job Satisfaction for India and US Samples (DV=Life Satisfaction)

These differences were further validated in the results of the interaction regression, which are reported in table 6.7. This analysis revealed a significant interaction between job satisfaction and country on life satisfaction (Beta = -0.003, SE = 0.001), which was significant at the $p < .01$ level. Though the z-scores discussed in the previous paragraph revealed a significant difference in the amount of variance that job satisfaction accounted for, there was no interaction between it and country. This was an unsurprising finding as the z-score approached non-significance ($p = .045$).

Table 6.7: Summary of Interaction Regression Analysis for Variables (Positive Personality Traits and Domain Satisfaction Scores) Predicting Life Satisfaction

Variable	B	Std. Error	Beta
Optimism	0.049	0.037	.057
Self-Efficacy	0.038	0.04	.050
Self Esteem	0.1	0.04	.138
Health Interaction	-0.001	0.001	.038
Family Interaction	0.002	0.001	-.108
Social Interaction	0.001	0.001	.245
Safety Interaction	-0.001	0.001	.180
Financial Interaction	0.001	0.001	-.156
Home Interaction	0.001	0.001	.139
Job Interaction	-0.003**	0.001	.195

*p < .05. **p < .01. ***p < .01.
Larger regression coefficients indicate more powerful relationships between the variable and life satisfaction.

6.4: Discussion

Both hypotheses were supported: there was cross-national variation in domain-life satisfaction relationships, even after controlling for positive personality traits (hypothesis one). In the Indian sample, health, financial and job satisfaction predicted life satisfaction. Amongst Americans, family, social life, financial situation and home satisfaction predicted it. Direct comparison revealed significant differences in the predictive power of home and job satisfaction, supporting the second hypothesis.

As expected, the differences noted in this chapter were smaller than those revealed through analysis of the Eurobarometer: The United States and India share some cultural values, a limitation addressed in the ensuing section. Despite this, variation in domain-life satisfaction relationships persisted while controlling positive personality traits (self-esteem, self-efficacy and optimism). As these variables are robust predictors of wellbeing in certain populations, it was thought that they could explain the results of previous chapters. Though these concerns appear to be unfounded, this point raises an important theoretical consideration. As noted in the first chapter, evidence indicates that both top-down and bottom-up processes contribute to wellbeing.

Though values and domain-satisfaction embody a bottom-up approach, self-esteem, optimism, and self-efficacy reflect positive attributions about one's self, one's future, and one's abilities (Williams, 2014). These traits are characteristic of a top-down approach, one which could potentially influence both domain and life satisfaction judgements. As such, there is an additional theoretical conclusion. In this instance, a bottom-up process affected wellbeing while controlling for a top-down factor.

Also worth noting is that the effects of individualism and collectivism were reflected in other predictors of wellbeing. The literature review in section 2.4.2 revealed that self-esteem was a more powerful predictor of life satisfaction in individualistic nations. As discussed in the introduction to this chapter, India contains a mixture of both values while the United States is highly individualistic. The correlations between all positive personality traits and life satisfaction were more powerful amongst American participants. However, self-esteem predicted life satisfaction across both samples; it was the only personality trait that accounted for a significant portion of the variance in either group. Furthermore, relationship status was associated with life satisfaction amongst Indians, but not Americans. This finding might reflect the importance placed on relationships in collectivistic societies. Though somewhat tangential, these findings further demonstrate the role values play in determining the predictors of wellbeing.

While objectivists argue that certain "goods" with inherent value predict wellbeing universally, subjectivism stresses the importance of values. Though the results of this thesis refute the core premise of objectivism, the concern with both past research and the previous empirical chapter was that these differences were a function of positive personality traits. However, even after they were controlled, cross-national variation in domain-life satisfaction relationships persisted; further supporting subjectivism. This conclusion is reinforced by the

previous empirical chapters and literature reviews (chapter 2), where cross-national variation in both values and domain-life satisfaction relationships were noted.

6.5: Limitations

The largest limitation of this chapter was that only two countries could be addressed. Financial restraints meant that a more comprehensive study was not feasible; an issue that was further exacerbated by cultural similarities between the United States and India. This is the most likely explanation for the differences noted here, which were less substantial those revealed through analysis of the Eurobarometer. The results of the literature review in section 2.4 made it clear that detecting variation in domain-life satisfaction relationships required a broad net, and this was taken into account when developing the hypotheses of this chapter. It seems probable that these differences would have been greater with data from additional countries, though analysis of larger samples may have been beneficial in this regard. While a larger, more diverse sample would have been ideal, this does little to limit the conclusions that can be drawn when the results of the previous chapters are taken into consideration. This issue will be addressed in the ensuing chapter as the results of this thesis are put into a broader context.

7: Overall Discussion

7.1: Initial Objectives, Results Summary and Theoretical Implications

The goal of this thesis was to determine whether there was evidence of universality in the predictors of wellbeing through an assessment of of subjectivism and objectivism. Subjectivists propose that values determine the predictors of wellbeing while objectivists argue that certain goods with inherent worth improve quality of life universally. Empirically, this necessitated an investigation of domain-life satisfaction relationships. Domains represent the prudential goodness of objectivism while life satisfaction embodies the desire satisfaction of subjectivism. Variation in these relationships supports subjectivism, while universality supports objectivism.

The literature discussed in the first half of the second chapter indicated a link between values and wellbeing. Further review revealed cross-national variation in values, self-esteem's relationship with wellbeing, and domain-life satisfaction relationships. It was concluded that, taken together, these findings supported subjectivism.

As both the World Values Survey and Eurobarometer use single-item measures, their psychometric properties were assessed in the third chapter. The multi-item Satisfaction with Life Scale was correlated with single item measures of life satisfaction, happiness, positive affect, negative affect, depression, anxiety, self-efficacy, optimism, and self-esteem. This analysis revealed congruent, convergent and discriminant validity, supporting the use of single-item measures in wellbeing research.

In the fourth chapter, data from the World Values Survey was analysed to determine if the self-reported importance of life domains (family, friends, leisure time, politics, work, religion) varied cross-nationally. An average linkage cluster analysis produced results that were remarkably similar to the cultural map of the world developed by Inglehart and Welzel (2005). A

series of MANCOVAs revealed significant cross-cluster and cross-national differences in self-reported domain importance. Regression analyses revealed significant cross-cluster variation in the relationships between self-reported domain importance and life satisfaction.

Similar variation in domain-life satisfaction relationships was revealed through analysis of the Eurobarometer in the fifth chapter. A series of hierarchical multiple regression analyses were computed. There was significant cross-cluster and cross-national variation in the relationships between domain satisfaction (health, family, social life, personal safety, financial situation, home life, job) and life satisfaction, with no universal predictors. Z-scores computed from the unstandardized beta coefficients of these regression models revealed significant differences in the predictive power of each domain.

In the sixth chapter, the relationships between domain satisfaction (health, family, social life, personal safety, financial situation, home life, job) and life satisfaction were examined while controlling positive personality traits (optimism, self-esteem, self-efficacy). These individual differences exemplify a top-down approach, which could explain variation in domain-life satisfaction relationships. Hierarchical multiple regression analysis revealed significant cross-national differences, though variation only persisted in job and home satisfaction when direct comparisons were made with z-scores.

Taken together, the results of this thesis indicate significant cross-national variation in domain-life satisfaction relationships. “Goods” proposed to have inherent value were not universal predictors of life satisfaction, violating the core premise of objectivism. These results support subjectivism, which argues that values determine the predictors of wellbeing. As such, the primary goal of this thesis, to determine whether there is evidence of universality in the predictors of wellbeing, was accomplished.

There are several criticisms that this conclusion will likely face. First, one might argue that a reduction in the number of domains would lead to universality in the predictors of wellbeing. In all likelihood, this is true. However, as values are ordered by relative importance, by (Schwartz, 2012), eliminating domains would make those remaining more important and reduce ecological validity.

Another denunciation might be that the right "goods" were not addressed: while those examined here lack inherent value, others do not. Unfortunately, it is impossible to satisfy this criticism as one the major limitations of objectivism is that there is little agreement about which "goods" have inherent value. As noted in the introduction to this thesis, objective lists typically presume that prudential goodness is determined by inherent human needs. They were addressed here by examining satisfaction with a variety of essential "goods". Given their inability to predict life satisfaction universally it seems reasonable to conclude that other variables would fail to do so, allowing for greater confidence in generalising these results to objectivism as a whole.

Given debate concerning the constituents of wellbeing, some might object to this conclusion being drawn from analysis of life satisfaction. Accepting that hedonism and desire-theories can be reduced to subjectivism (Heathwood, 2006), the core premise of this theory is that an individual is better off when their desires are satisfied. As such, the end state proposed by subjectivism is satisfaction with life as a whole. Because of this, an empirical investigation of subjectivism and objectivism necessitated the use of life satisfaction. Furthermore, there is ample evidence that life satisfaction is related to other proposed wellbeing constituents: this literature was discussed section 1.5 and further validated in the third chapter. This evidence allows for greater confidence in generalising to wellbeing as a whole.

Finally, some might argue that situational factors can explain the differences in both values and domain-life satisfaction relationships. As noted in section 2.4, Oishi et al. (1999b) hypothesized that the hierarchy of needs proposed by Maslow (1943) would influence value priorities, and domain-life satisfaction relationships by extension. This hierarchy is frequently conceptualized as a pyramid, and it is believed that individuals must meet the requirements at its base before higher level needs become desired. The two most basic needs are physiological and safety. The former is composed of food, water, warmth and rest while the latter contains security and safety. Though the findings of Oishi et al. (1999b) were not particularly compelling in the context of this thesis, a brief review conducted by Meuleman et al. (2012) revealed that basic socio-demographic factors such as age, gender, employment, and education have a powerful influence on value priorities. As these variables were controlled, it is likely that the differences noted throughout this thesis are a function of varying cultural values which have been internalized at the individual level. This conclusion is not meant to deny the importance of basic human needs, but instead indicates that variation in both values and domain-life satisfaction relationships persists when they are controlled, supporting subjectivism.

Taken together, these points reinforce the primary conclusion of this thesis: subjectivism is correct, and the predictors of wellbeing are not universal but vary as a function of individual values. Of course, this conclusion is based on the interpretation of two philosophical positions, one of which is particularly vague (section 1.2). Though this point was taken into consideration during the assessment of these findings, the arguments outlined here and in the first chapter reinforce the validity of this approach and the conclusion that the predictors of wellbeing are not universal. Independent of this inference, the cross-national differences noted throughout the methodological chapters of this thesis raise several practical implications which merit discussion.

7.2: Practical Implications

The cross-national differences noted throughout this thesis indicate that the predictors of wellbeing vary as a function of values. As such, these findings point towards a practical issue that exists in both research and policy development aimed at understanding and improving wellbeing: the importance of focusing on values and other individual differences.

In relating the findings of this thesis to the research that was reviewed throughout the first two chapters it became apparent that individual differences, specifically values, were frequently neglected as an explanatory mechanism when they were not the author's primary interest. Given the apparent ability of value priorities to influence domain-life satisfaction relationships on a national level, these findings illustrate the importance of prioritizing individual differences in wellbeing research. The failure to focus on these characteristics could help explain the inconsistencies noted in the reviewed literature. With regards to future research, the impracticality of individual profiling in the analysis of larger groups means that the identification and prioritization of relevant variables is crucial.

In identifying a methodology for accomplishing this task it is beneficial to refer to the work of practising psychologists and psychiatrists, who have noted the impact that individual differences have on therapeutic outcomes. Miller, Duncan, and Hubble (1997) argued that extra-therapeutic factors were the single most important contributor to success, accounting for 40% of the variance. These factors are composed of an individual's "inner strengths, support system, environment, and chance events".(Thomas, 2006) Specific examples include "faith, persistence, supportive family members, community involvement, job, or a crisis situation". (Thomas, 2006). Though this concept encompasses the whole of an individual's personality in addition to social-structural factors, it does highlight the importance of individual differences in achieving positive

therapeutic outcomes. While the 40% figure was an estimation by Miller et al. (1997), a meta-analysis conducted by Wampold (2013) indicated that 87% of the variance in therapeutic outcomes could be explained by these factors.

Strack and Millon (2013) argued that "temperament, sensitivities, proclivities, preferences, behavioral patterns, and coping strategies" had the greatest impact on success. Taken together, these systems are "an authentic, substantive unity—an intrinsic cohesion of many processes and systems that work together for survival and actualization of innate potentials " (Strack & Millon, 2013). Based on these conclusions, Millon developed a framework to incorporate individual differences into psychotherapy (Strack & Millon, 2013). He first emphasized the importance of applying scientifically proven principles while stressing an understanding of human evolutionary development. He argued that this knowledge allowed the therapist to focus on subject-oriented theories while deriving "a taxonomy of personality patterns and clinical syndromes" (Strack & Millon, 2013). Finally, he stated that the therapist had to measure theoretically-relevant individual characteristics through traditional methods so that appropriate therapeutic interventions could be chosen. Millon did not propose a novel therapy, but instead emphasized the importance of taking individual characteristics into account when treating patients (Strack & Millon, 2013). For a detailed review of this matching process, refer to Strack and Millon (2013). Beyond demonstrating the importance of individual differences in wellbeing research, this framework could provide a guideline for the assessment and control of individual differences in larger groups.

Finally, these conclusions extend to policy development aimed at increased wellbeing. As of late, there has been increased interest in wellbeing from both the public and private sectors (Kahneman & Krueger, 2006), likely because of the many positive life outcomes associated with

it (Howell, Kern, & Lyubomirsky, 2007). Governments have typically focused on the socioeconomic status of their citizens; an approach reflective of the objective list theories detailed in the introductory chapter. However, the evidence provided in the empirical chapters of this thesis, combined with the reviewed literature, makes it clear that there is significant variation in the predictors of life satisfaction; supporting subjectivism and the conclusion that values are the key to understanding wellbeing. Given that values vary cross-nationally, wellbeing needs to be understood in the context in which it occurs: the population needs to be considered first and foremost. A plan predicated on universal predictors is likely to be inefficient, as the results of this thesis indicate significant variation in these relationships. For optimal results, a programme would need to be tailored to the target demographic.

7.3: Limitations, Context and Next Steps

The evidence in this thesis indicates that the predictors of wellbeing are not universal, but vary as a function of values. It was concluded that these findings support subjectivism. Earlier in this chapter, several potential criticisms of this conclusion were addressed: here, more general limitations will be discussed. More specifically, the limitations are related to understanding the results of this thesis in context. Limitations here refer to the applicability of these results and what they mean in a broader context. First, it is not the intention of this paper to provide the final word on the subjectivism/objectivism debate; this seems an impossible task given that there is little agreement when it comes to prudential goodness. Still, as noted in section 8.1, the domains addressed here are ubiquitous components of human life and have been incorporated into many objective lists, further reinforcing this conclusion.

Second, caution must be taken when values are inferred from the predictors of wellbeing. A non-significant relationship only indicates that a "good" is not important enough to account for

variation in an individual's wellbeing, not that it has no value to them. This conclusion is supported by the analysis of the World Values Survey: while there were significant differences in values, no country had a mean score of "not at all important" in any domain. The importance threshold at which a "good" begins to influence an individual's wellbeing is unknown, and beyond the scope of this thesis. Regardless, value inferences drawn from domain-life satisfaction relationships were reinforced through analysis of the World Values Survey and past research (section 2.2.5). Indeed, this is one of the most important distinctions made in this thesis. The fact that a domain failed to predict life satisfaction does not mean that it was of no value to the participants in question. What it does mean is that, when taking other domains into account, it failed to account for a significant portion of the variation in life satisfaction.

Beyond these more general comments, the findings of this thesis can be extended in two important ways. The first is assessing domain-life satisfaction relationships while controlling positive personality traits in additional countries. Comparison of Americans and Indians revealed differences that were less substantial than those of the Eurobarometer; likely a function of cultural similarities. Though the results of the previous chapters make it seems likely that cultural divergent comparisons would reveal more extensive differences, it is important to demonstrate this empirically. Second, as the results of this thesis support subjectivism, it would be beneficial to include measures of domain satisfaction in some of the aforementioned multinational surveys (World Values Survey, European Social Survey, Eurobarometer, etc.). These results make it clear that assessing wellbeing requires an understanding of the subjective experience of the individual and that objective measures alone are insufficient.

Beyond extending these findings, there are two additional lines of inquiry that merit investigation. First, life satisfaction was addressed in this thesis for theoretical reasons; the goal

was understanding the respective merits of subjectivism and objectivism in wellbeing research. As this has been accomplished, variation in the predictors of other wellbeing components can be addressed. Particularly relevant are positive affect, negative affect and happiness; conceptualizations that were discussed throughout the first chapter. Putting aside theoretical debate concerning its constituents, such research has practical applications as evidence indicates that different wellbeing components have varying positive outcomes. For a detailed reviews, refer to the work of Howell et al. (2007) and (De Neve, Diener, Tay, & Xuereb, 2013).

It would also be ideal to address domain-life satisfaction relationships while taking self-reported domain-importance into account. As discussed in section 5.4, evidence indicates that some values are beyond conscious awareness, making it unlikely that self-reported domain importance is capable of mediating domain-life satisfaction relationships (Maio, 2010). However, it would be ideal to determine what proportion of this variance is moderated by self-reported values.

An extension of this point concerns the control variables discussed in the first chapter. As noted in section 1.4, socio-demographic variables were controlled for their potential to influence domain priorities. Had they been unaccounted for, differences in domain-life satisfaction relationships could be explained by situational factors. Though these differences persisted with appropriate controls, it would be ideal to extend these findings through a longitudinal study. While it seems unlikely that these factors could explain the entirety of this variation, it would be worthwhile to determine their impact on domain-life satisfaction relationships.

Addressing domain-life satisfactions in additional countries will allow for greater confidence in the conclusions of this thesis. Extending these findings in other components of wellbeing, assessing the role that self-reported domain importance plays and examining these

relationships in a longitudinal context will allow for a better understanding of the impact that values have on wellbeing as a whole.

7.4: Conclusion

The results of this thesis suggest that there is significant cross-national variation in domain-life satisfaction relationships: none were universal. This finding violates the primary assumption of objectivism; that certain goods with inherent worth improve quality of life universally. Instead, these results support subjectivism, which presumes that values determine the predictors of wellbeing. By extensions, these results indicate cross-national variation in the values underlying these relationships. Though this thesis is unlikely to end the subjectivism/objectivism debate, it does provide compelling support for the former in wellbeing research. As such, the primary goal of assessing universality in the predictors of wellbeing was accomplished.

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Appendices

Appendix 3.1: Single Item Wellbeing Questions

Variable	Question
Life Satisfaction	Overall, I feel that I am satisfied with my life (For example: In most ways my life is close to my ideal, so far I have gotten the important things I want in life)
Happiness	On a scale of one to ten, how happy would you say you are in general?
Positive Affect	Thinking about myself and how I normally feel, in general, I mostly experience positive feelings (For example: I feel alert, inspired, determined, attentive)
Negative Affect	Thinking about myself and how I normally feel, in general, I mostly experience negative feelings (For example: I feel upset, hostile, ashamed, nervous)
Depression	On a scale of one to ten, how depressed would you say you are in general? (e.g. feeling 'down', no longer looking forward to things or enjoying things that you used to)
Anxiety	On a scale of one to ten, how anxious would you say you are in general? (e.g. feeling tense or 'wound up', unable to relax, feelings of worry or panic)
Self-efficacy	I am confident in my ability to solve problems that I might face in life (For example: I can usually handle whatever comes my way, If I try hard enough I can overcome difficult problems, I can stick to my aims and accomplish my goals)
Self-esteem	Overall, I feel that I have positive self-esteem (For example: On the whole I am satisfied with myself, I am able to do things as well as most other people, I feel that I am a person of worth)
Optimism	In general, I feel optimistic about the future (For example: I usually expect the best, I expect more good things to happen to me than bad, It's easy for me to relax)

Appendix 3.2: Satisfaction With Life Scale

Instructions	Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.
Scale	7 - Strongly agree 6 - Agree 5 - Slightly agree 4 - Neither agree nor disagree 3 - Slightly disagree 2 - Disagree 1 - Strongly disagree
Life Satisfaction Items	In most ways my life is close to my ideal.
	On a scale of one to ten, how happy would you say you are in general?
	The conditions of my life are excellent.
	I am satisfied with my life.
	So far I have gotten the important things I want in life
	If I could live my life over, I would change almost nothing.

Appendix 4.1: Value Questions

For each of the following, indicate how important it is in your life. Would you say it is				
	Very important	Rather important	Not very important	Not at all important
Family	1	2	3	4
Friends	1	2	3	4
Leisure time	1	2	3	4
Politics	1	2	3	4
Work	1	2	3	4
Religion	1	2	3	4

Appendix 4.2: Age Breakdowns for Individual Countries (World Values Survey)

Country	Valid	Missing	Mean	Std. Deviation	Minimum	Maximum
Algeria	1067	0	37.55	14.78	18	87
Azerbaijan	1002	0	39.66	15.385	18	85
Australia	1361	4	45.64	17.389	18	95
Armenia	1049	0	45.74	17.89	18	85
Belarus	1494	0	45.41	17.312	18	86
Chile	941	0	43.45	15.993	18	85
China	1909	0	41.77	14.238	18	75
Taiwan	1174	4	43.59	16.047	18	85
Colombia	1498	0	40.36	15.761	18	82
Cyprus	981	0	41.91	16.78	17	89
Ecuador	1201	0	39.82	16.141	18	97
Estonia	1480	0	46.82	18.569	18	93
Palestine	956	0	36.23	13.79	18	86
Germany	1972	0	49.02	17.734	17	95
Ghana	1552	0	32.26	13.407	18	82
Iraq	1168	0	36.62	13.414	18	83
Japan	1913	0	50.55	15.82	18	80
Kazakhstan	1502	0	40.35	15.747	18	88
Jordan	1175	0	39.52	15.339	18	84
South Korea	1153	0	43.72	15.586	19	85
Kuwait	1066	21	36.79	11.71	17	79
Kyrgyzstan	1490	0	38.74	14.387	18	89
Lebanon	1005	0	38.47	14.952	18	82
Libya	1989	0	33.77	11.78	18	78
Malaysia	1299	0	40.02	13.965	18	80
Mexico	1997	0	37.44	15.157	18	93
Morocco	1055	0	36.31	13.027	18	85
Netherlands	1748	0	52.84	16.28	18	90
New Zealand	726	8	50.09	16.383	18	90
Nigeria	1759	0	31.53	11.763	18	98
Pakistan	1163	0	34.48	12.037	18	85
Peru	1146	0	39.23	16.333	18	88
Philippines	1189	0	43.09	15.495	18	87
Poland	910	0	47.33	17.82	19	87
Qatar	1048	7	37.75	12.887	18	93
Romania	1453	3	46.07	17.556	18	85
Russia	2116	0	43.52	16.677	18	91

Country	Valid	Missing	Mean	Std. Deviation	Minimum	Maximum
Rwanda	1527	0	33.77	11.226	18	85
Singapore	1940	28	45.14	17.259	18	89
Slovenia	1026	0	49.07	17.527	18	94
Zimbabwe	1499	0	36.14	14.874	18	92
Spain	1118	0	45.7	18.746	18	99
Sweden	1118	0	46.37	17.763	18	85
Trinidad and Tobago	971	1	45.85	17.738	18	94
Tunisia	1154	0	38.24	15.939	18	87
Turkey	1554	0	39.95	15.069	18	86
Ukraine	1500	0	46.68	18.028	18	89
Egypt	1523	0	38.8	15.156	18	99
United States	2169	0	46.34	16.993	18	93
Uruguay	955	0	44.45	18.017	18	88
Uzbekistan	1447	0	39.27	14.723	18	89
Yemen	909	0	35.15	12.871	18	90

Appendix 4.3: Gender Breakdowns for Individual Countries (World Values Survey)

Country	Sex	Frequency	Percent
Algeria	Male	547	51.3
	Female	520	48.7
	Total	1067	100
Azerbaijan	Male	495	49.4
	Female	507	50.6
	Total	1002	100
Australia	Male	704	51.5
	Female	662	48.5
	Total	1365	100
Armenia	Male	515	49.1
	Female	533	50.9
	Total	1049	100
Belarus	Male	675	45.2
	Female	819	54.8
	Total	1494	100
Chile	Male	468	49.7
	Female	473	50.3
	Total	941	100
China	Male	1008	52.8
	Female	902	47.2
	Total	1909	100
Taiwan	Male	590	50.1
	Female	588	49.9
	Total	1177	100
Colombia	Male	747	49.9
	Female	751	50.1
	Total	1498	100
Cyprus	Male	489	49.9
	Female	492	50.1
	Total	981	100
Ecuador	Male	582	48.5
	Female	619	51.5
	Total	1201	100
Estonia	Male	670	45.3
	Female	809	54.7
	Total	1480	100
Palestine	Male	472	49.4

	Female	484	50.6
	Total	956	100
Germany	Male	961	48.8
	Female	1011	51.2
	Total	1972	100
Ghana	Male	783	50.5
	Female	769	49.5
	Total	1552	100
Iraq	Male	618	52.9
	Female	550	47.1
	Total	1168	100
Japan	Male	957	50
	Female	956	50
	Total	1913	100
Kazakhstan	Male	703	46.8
	Female	799	53.2
	Total	1502	100
Jordan	Male	592	50.4
	Female	583	49.6
	Total	1175	100
South Korea	Male	572	49.6
	Female	581	50.4
	Total	1153	100
Kuwait	Male	706	64.9
	Female	381	35.1
	Total	1087	100
Kyrgyzstan	Male	731	49.1
	Female	759	50.9
	Total	1490	100
Lebanon	Male	504	50.1
	Female	501	49.9
	Total	1005	100
Libya	Male	1059	53.2
	Female	930	46.8
	Total	1989	100
Malaysia	Male	668	51.4
	Female	631	48.6
	Total	1299	100
Mexico	Male	998	50

	Female	999	50
	Total	1997	100
Morocco	Male	544	51.6
	Female	511	48.4
	Total	1055	100
Netherlands	Male	812	46.5
	Female	936	53.5
	Total	1748	100
New Zealand	Male	318	43.3
	Female	416	56.7
	Total	734	100
Nigeria	Male	904	51.4
	Female	855	48.6
	Total	1759	100
Pakistan	Male	603	51.9
	Female	559	48.1
	Total	1163	100
Peru	Male	574	50.1
	Female	571	49.9
	Total	1146	100
Philippines	Male	595	50
	Female	594	50
	Total	1189	100
Poland	Male	432	47.5
	Female	478	52.5
	Total	910	100
Qatar	Male	483	45.8
	Female	572	54.2
	Total	1055	100
Romania	Male	700	48.1
	Female	756	51.9
	Total	1457	100
Russia	Male	960	45.4
	Female	1156	54.6
	Total	2116	100
Rwanda	Male	757	49.6
	Female	770	50.4
	Total	1527	100
Singapore	Male	846	43

	Female	1122	57
	Total	1968	100
Slovenia	Male	431	42
	Female	595	58
	Total	1026	100
Zimbabwe	Male	683	45.6
	Female	816	54.4
	Total	1499	100
Spain	Male	542	48.5
	Female	576	51.5
	Total	1118	100
Sweden	Male	561	50.2
	Female	556	49.8
	Total	1118	100
Trinidad and Tobago	Male	434	44.7
	Female	538	55.3
	Total	972	100
Tunisia	Male	612	53
	Female	542	47
	Total	1154	100
Turkey	Male	793	51.1
	Female	760	48.9
	Total	1554	100
Ukraine	Male	675	45
	Female	825	55
	Total	1500	100
Egypt	Male	761	50
	Female	761	50
	Total	1523	100
United States	Male	1054	48.6
	Female	1116	51.4
	Total	2169	100
Uruguay	Male	453	47.4
	Female	502	52.6
	Total	955	100
Uzbekistan	Male	567	39.2
	Female	880	60.8
	Total	1447	100
Yemen	Male	459	50.5

	Female	450	49.5
	Total	909	100

Appendix 5.1: Domain Satisfaction Questions

For each of the following, please tell me if you are very satisfied, fairly satisfied, not very satisfied or not at all satisfied?				
	Very satisfied	Fairly satisfied	Not very satisfied	Not at all satisfied
Your life in general	1	2	3	4
Your own health	1	2	3	4
Your family life	1	2	3	4
Your social life	1	2	3	4
Your relationship with people you work with	1	2	3	4
Your personal safety	1	2	3	4
Your financial situation	1	2	3	4
Your home, housing	1	2	3	4
Your neighbourhood	1	2	3	4
The quality of the tap water	1	2	3	4
The air quality	1	2	3	4
Your current job	1	2	3	4
The way democracy works in (OUR COUNTRY)	1	2	3	4

Appendix 5.2: Age Breakdowns for Individual Countries (Eurobarometer)

Country	Valid	Missing	Mean	Std. Deviation	Minimum	Maximum
France	477	0	40.88	11.026	18	83
Belgium	511	0	40.37	10.45	18	69
The Netherlands	576	0	42.82	11.057	17	82
Germany West	515	0	41.73	12.254	15	75
Italy	531	0	39.5	10.211	19	76
Luxembourg	213	0	40.65	9.394	19	61
Denmark	540	0	43.23	11.566	18	79
Ireland	550	0	39.65	12.943	17	81
Great Britain	514	0	41.19	13.288	16	82
Northern Ireland	137	0	38.72	12.927	16	76
Greece	430	0	40.17	11.088	18	72
Spain	444	0	38.63	11.314	16	69
Portugal	441	0	41.78	12.621	17	90
Germany East	216	0	41.12	11.383	19	64
Finland	539	0	45.07	11.21	19	79
Sweden	586	0	44.64	11.781	15	75
Austria	604	0	40.61	11.149	17	76
Cyprus (Republic)	243	0	42.63	11.776	19	67
Czech Republic	624	0	42.89	12.327	18	92
Estonia	454	0	43.17	12.38	17	72
Hungary	349	0	39.87	11.05	17	74
Latvia	483	0	42.53	12.868	18	74
Lithuania	387	0	40.87	11.444	20	81
Malta	147	0	39.1	11.612	17	72
Poland	367	0	40.59	10.938	17	78
Slovakia	710	3	41.64	10.881	18	82
Slovenia	436	0	40.08	10.741	17	73
Bulgaria	434	0	40.98	11.142	18	70
Romania	427	0	39.85	11.476	17	87

Appendix 5.3: Gender Breakdowns for Individual Countries (Eurobarometer)

Country	Gender	Frequency	Percent
France	Male	235	49.3
	Female	242	50.7
	Total	477	100
Belgium	Male	281	55
	Female	230	45
	Total	511	100
The Netherlands	Male	294	51
	Female	282	49
	Total	576	100
Germany West	Male	281	54.6
	Female	234	45.4
	Total	515	100
Italy	Male	281	52.9
	Female	250	47.1
	Total	531	100
Luxembourg	Male	102	47.9
	Female	111	52.1
	Total	213	100
Denmark	Male	286	53
	Female	254	47
	Total	540	100
Ireland	Male	323	58.7
	Female	227	41.3
	Total	550	100
Great Britain	Male	260	50.6
	Female	254	49.4
	Total	514	100
Northern Ireland	Male	61	44.5
	Female	76	55.5
	Total	137	100
Greece	Male	251	58.4
	Female	179	41.6
	Total	430	100
Spain	Male	238	53.6
	Female	206	46.4
	Total	444	100
Portugal	Male	220	49.9

	Female	221	50.1
	Total	441	100
Germany East	Male	122	56.5
	Female	94	43.5
	Total	216	100
Finland	Male	247	45.8
	Female	292	54.2
	Total	539	100
Sweden	Male	334	57
	Female	252	43
	Total	586	100
Austria	Male	322	53.3
	Female	282	46.7
	Total	604	100
Cyprus	Male	121	49.8
	Female	122	50.2
	Total	243	100
Czech Republic	Male	313	50.2
	Female	311	49.8
	Total	624	100
Estonia	Male	177	39
	Female	277	61
	Total	454	100
Hungary	Male	178	51
	Female	171	49
	Total	349	100
Latvia	Male	178	36.9
	Female	305	63.1
	Total	483	100
Lithuania	Male	166	42.9
	Female	221	57.1
	Total	387	100
Malta	Male	83	56.5
	Female	64	43.5
	Total	147	100
Poland	Male	184	50.1
	Female	183	49.9
	Total	367	100
Slovakia	Male	322	45.2

	Female	391	54.8
	Total	713	100
Slovenia	Male	228	52.3
	Female	208	47.7
	Total	436	100
Bulgaria	Male	224	51.6
	Female	210	48.4
	Total	434	100
Romania	Male	218	51.1
	Female	209	48.9
	Total	427	100

Appendix 5.4: Summary of Individual Country Regression Analysis for Variables Predicting Life Satisfaction (Model Summaries)

Nation	**Model**	**R**	**R Square**	**Adjusted R Square**	**Std. Error**	**R Square Change**	**F Change**	**Sig. F Change**
France	1	.210	0.044	0.033	0.542	0.044	4.065	0.001
	2	.640	0.409	0.393	0.43	0.365	38.281	0
Belgium	1	.163	0.027	0.017	0.575	0.027	2.636	0.023
	2	.665	0.443	0.429	0.438	0.416	50.679	0
The Netherlands	1	.235	0.055	0.047	0.529	0.055	6.451	0
	2	.654	0.428	0.415	0.414	0.372	50.652	0
Germany West	1	.234	0.055	0.045	0.59	0.055	5.494	0
	2	.681	0.464	0.451	0.447	0.41	51.152	0
Italy	1	.180	0.032	0.023	0.62	0.032	3.284	0.006
	2	.723	0.522	0.511	0.439	0.49	70.801	0
Luxembourg	1	.169	0.028	0.004	0.582	0.028	1.16	0.33
	2	.731	0.535	0.505	0.41	0.506	29.686	0
Denmark	1	.254	0.064	0.055	0.528	0.064	6.789	0

	2	.674	0.454	0.441	0.406	0.39	49.745	0
Ireland	1	.105	0.011	0.001	0.608	0.011	1.127	0.345
	2	.661	0.436	0.423	0.462	0.425	53.822	0
Great Britain	1	.231	0.053	0.043	0.585	0.053	5.2	0
	2	.660	0.435	0.42	0.456	0.381	43.693	0
Northern Ireland	1	.302	0.091	0.052	0.545	0.091	2.347	0.045
	2	.669	0.447	0.387	0.439	0.356	10.135	0
Greece	1	.255	0.065	0.053	0.85	0.065	5.615	0
	2	.653	0.427	0.41	0.672	0.362	35.809	0
Spain	1	.189	0.036	0.024	0.567	0.036	3.039	0.01
	2	.658	0.432	0.416	0.439	0.397	40.339	0
Portugal	1	.163	0.027	0.014	0.742	0.027	2.07	0.068
	2	.747	0.559	0.544	0.504	0.532	63.702	0
Germany East	1	.224	0.05	0.026	0.641	0.05	2.076	0.07
	2	.608	0.369	0.329	0.532	0.319	13.654	0
Finland	1	.186	0.035	0.025	0.516	0.035	3.608	0.003
	2	.613	0.375	0.36	0.418	0.341	38.66	0
Sweden	1	.295	0.087	0.079	0.559	0.087	10.855	0
	2	.647	0.419	0.406	0.448	0.332	45.777	0
Austria	1	.194	0.038	0.029	0.553	0.038	4.164	0.001
	2	.702	0.493	0.482	0.404	0.456	67.75	0
Cyprus (Republic)	1	.211	0.044	0.024	0.722	0.044	2.169	0.058
	2	.685	0.469	0.44	0.547	0.424	25.767	0

Czech Republic	1	.215	0.046	0.038	0.56	0.046	5.38	0
	2	.591	0.349	0.335	0.465	0.303	36.268	0
Estonia	1	.274	0.075	0.064	0.559	0.075	6.858	0
	2	.610	0.372	0.353	0.465	0.296	27.899	0
Hungary	1	.387	0.15	0.135	0.727	0.15	10.089	0
	2	.641	0.411	0.386	0.613	0.261	17.663	0
Latvia	1	.218	0.048	0.036	0.677	0.048	4.277	0.001
	2	.673	0.453	0.438	0.517	0.406	44.657	0
Lithuania	1	.297	0.088	0.076	0.641	0.088	7.005	0
	2	.733	0.538	0.522	0.461	0.45	49.363	0
Malta	1	.291	0.084	0.051	0.641	0.084	2.491	0.034
	2	.561	0.315	0.25	0.57	0.23	6.14	0
Poland	1	.209	0.044	0.029	0.583	0.044	3.054	0.01
	2	.632	0.399	0.377	0.467	0.356	27.668	0
Slovakia	1	.203	0.041	0.034	0.61	0.041	5.592	0
	2	.587	0.345	0.333	0.507	0.303	42.403	0
Slovenia	1	.195	0.038	0.026	0.551	0.038	3.255	0.007
	2	.574	0.329	0.309	0.464	0.291	24.977	0
Bulgaria	1	.239	0.057	0.044	0.83	0.057	4.343	0.001
	2	.689	0.475	0.457	0.625	0.418	40.161	0
Romania	1	.256	0.066	0.053	0.743	0.066	4.971	0
	2	.691	0.477	0.459	0.561	0.411	38.904	0

Appendix 5.5: Summary of Individual Country Regression Analysis for Variables Predicting Life Satisfaction (Regression Coefficients)

Nation	Model		B	Std. Error	Beta	t	Sig.
France	1	(Constant)	1.777	0.288		6.168	0
		Marital Status	0.049	0.014	0.168	3.605	0
		Age Education Ended	-0.012	0.007	-0.082	-1.607	0.109
		Gender	-0.01	0.051	-0.009	-0.201	0.841
		Age	0.005	0.003	0.095	1.96	0.051
		Occupation	-0.002	0.009	-0.009	-0.172	0.863
	2	(Constant)	0.695	0.243		2.862	0.004
		Marital Status	0.011	0.011	0.039	1.005	0.316
		Age Education Ended	-0.008	0.006	-0.052	-1.286	0.199
		Gender	-0.041	0.041	-0.037	-0.989	0.323
		Age	0.002	0.002	0.03	0.768	0.443
		Occupation	-0.015	0.008	-0.081	-1.929	0.054
		Health Satisfaction	0.071	0.034	0.088	2.081	0.038
		Family Satisfaction	0.267	0.039	0.306	6.865	0
		Social Life Satisfaction	0.172	0.042	0.193	4.09	0
		Personal Safety Satisfaction	0.058	0.035	0.069	1.683	0.093
		Financial Situation Satisfaction	0.123	0.03	0.175	4.147	0
		Home/Housing Satisfaction	0.055	0.037	0.063	1.496	0.135
		Current Job Satisfaction	0.048	0.027	0.07	1.774	0.077
Belgium	1	(Constant)	1.592	0.298		5.336	0
		Marital Status	0.046	0.014	0.148	3.235	0.001
		Age Education Ended	-0.008	0.009	-0.043	-0.924	0.356
		Gender	0.03	0.053	0.026	0.565	0.572

		Age	0.003	0.003	0.046	0.994	0.321
		Occupation	0	0.009	-0.002	-0.047	0.962
	2	(Constant)	0.081	0.245		0.33	0.742
		Marital Status	-0.004	0.011	-0.014	-0.382	0.702
		Age Education Ended	0.002	0.007	0.008	0.231	0.817
		Gender	-0.004	0.04	-0.004	-0.102	0.919
		Age	0	0.002	0.006	0.172	0.863
		Occupation	0.005	0.007	0.028	0.762	0.447
		Health Satisfaction	0.063	0.033	0.073	1.905	0.057
		Family Satisfaction	0.156	0.037	0.179	4.264	0
		Social Life Satisfaction	0.252	0.037	0.281	6.864	0
		Personal Safety Satisfaction	0.049	0.033	0.056	1.475	0.141
		Financial Situation Satisfaction	0.082	0.034	0.1	2.375	0.018
		Home/Housing Satisfaction	0.124	0.036	0.138	3.468	0.001
		Current Job Satisfaction	0.159	0.034	0.181	4.701	0
The Netherlands	1	(Constant)	1.267	0.2		6.331	0
		Marital Status	0.063	0.012	0.226	5.372	0
		Age Education Ended	-0.004	0.004	-0.044	-1.038	0.3
		Gender	-0.088	0.046	-0.081	-1.904	0.057
		Age	0	0.002	-0.003	-0.069	0.945
		Occupation	0.013	0.009	0.063	1.476	0.14
	2	(Constant)	0.141	0.168		0.837	0.403
		Marital Status	0.025	0.01	0.089	2.588	0.01
		Age Education Ended	-0.001	0.003	-0.009	-0.284	0.776
		Gender	-0.038	0.037	-0.035	-1.013	0.311

		Age	0	0.002	0.007	0.195	0.845
		Occupation	-0.001	0.007	-0.006	-0.177	0.859
		Health Satisfaction	0.119	0.031	0.14	3.805	0
		Family Satisfaction	0.101	0.038	0.109	2.664	0.008
		Social Life Satisfaction	0.277	0.04	0.285	6.922	0
		Personal Safety Satisfaction	0.092	0.029	0.113	3.134	0.002
		Financial Situation Satisfaction	0.061	0.026	0.087	2.327	0.02
		Home/Housing Satisfaction	0.153	0.034	0.159	4.458	0
		Current Job Satisfaction	0.073	0.026	0.1	2.772	0.006
Germany West	1	(Constant)	1.636	0.263		6.218	0
		Marital Status	0.056	0.014	0.185	4.027	0
		Age Education Ended	-0.006	0.006	-0.048	-0.997	0.319
		Gender	0.003	0.055	0.002	0.047	0.963
		Age	-0.002	0.002	-0.033	-0.709	0.479
		Occupation	0.017	0.009	0.09	1.856	0.064
	2	(Constant)	0.224	0.216		1.035	0.301
		Marital Status	0.009	0.011	0.028	0.758	0.449
		Age Education Ended	0.001	0.005	0.006	0.151	0.88
		Gender	0.001	0.042	0.001	0.021	0.983
		Age	0	0.002	-0.009	-0.256	0.798
		Occupation	-0.003	0.007	-0.014	-0.376	0.707
		Health Satisfaction	0.176	0.031	0.21	5.714	0
		Family Satisfaction	0.212	0.036	0.241	5.836	0
		Social Life Satisfaction	0.036	0.039	0.041	0.915	0.361
		Personal Safety Satisfaction	0.056	0.035	0.064	1.614	0.107
		Financial Situation Satisfaction	0.236	0.035	0.306	6.7	0

		Home/Housing Satisfaction	0.073	0.032	0.087	2.289	0.023
		Current Job Satisfaction	0.068	0.032	0.084	2.139	0.033
Italy	1	(Constant)	1.963	0.252		7.777	0
		Marital Status	0.023	0.013	0.077	1.692	0.091
		Age Education Ended	-0.019	0.007	-0.122	-2.605	0.009
		Gender	0.012	0.056	0.01	0.215	0.829
		Age	0.002	0.003	0.032	0.698	0.486
		Occupation	0.015	0.008	0.086	1.831	0.068
	2	(Constant)	0.246	0.197		1.25	0.212
		Marital Status	-0.002	0.01	-0.007	-0.216	0.829
		Age Education Ended	-0.002	0.005	-0.01	-0.296	0.767
		Gender	-0.044	0.04	-0.035	-1.09	0.276
		Age	0	0.002	0.002	0.068	0.946
		Occupation	-0.004	0.006	-0.023	-0.683	0.495
		Health Satisfaction	0.056	0.037	0.058	1.534	0.126
		Family Satisfaction	0.222	0.035	0.244	6.42	0
		Social Life Satisfaction	0.239	0.038	0.254	6.327	0
		Personal Safety Satisfaction	0.086	0.03	0.101	2.924	0.004
		Financial Situation Satisfaction	0.118	0.03	0.148	3.911	0
		Home/Housing Satisfaction	0.068	0.035	0.074	1.964	0.05
		Current Job Satisfaction	0.144	0.034	0.168	4.202	0
Luxembourg	1	(Constant)	0.87	0.355		2.452	0.015
		Marital Status	0.033	0.02	0.12	1.663	0.098
		Age Education Ended	0.002	0.006	0.026	0.367	0.714
		Gender	0.021	0.084	0.018	0.245	0.807

		Age	0.006	0.004	0.096	1.362	0.175
		Occupation	0.018	0.014	0.094	1.307	0.193
	2	(Constant)	-0.174	0.269		-0.647	0.519
		Marital Status	-0.013	0.015	-0.048	-0.878	0.381
		Age Education Ended	0.004	0.005	0.043	0.829	0.408
		Gender	-0.014	0.06	-0.012	-0.224	0.823
		Age	0	0.003	0.007	0.146	0.884
		Occupation	0.012	0.01	0.063	1.169	0.244
		Health Satisfaction	0.181	0.06	0.195	3.037	0.003
		Family Satisfaction	0.291	0.067	0.306	4.354	0
		Social Life Satisfaction	0.125	0.06	0.135	2.08	0.039
		Personal Safety Satisfaction	0.16	0.053	0.183	3.016	0.003
		Financial Situation Satisfaction	0.036	0.053	0.042	0.682	0.496
		Home/Housing Satisfaction	0.035	0.064	0.036	0.543	0.588
		Current Job Satisfaction	0.134	0.055	0.143	2.437	0.016
Denmark	1	(Constant)	1.626	0.178		9.13	0
		Marital Status	0.059	0.012	0.215	4.934	0
		Age Education Ended	0.001	0.003	0.019	0.424	0.672
		Gender	-0.103	0.048	-0.095	-2.146	0.032
		Age	-0.005	0.002	-0.097	-2.154	0.032
		Occupation	-0.004	0.008	-0.021	-0.468	0.64
	2	(Constant)	0.169	0.161		1.053	0.293
		Marital Status	0.01	0.01	0.037	1.012	0.312
		Age Education Ended	0	0.002	-0.003	-0.08	0.936

		Gender	-0.024	0.038	-0.022	-0.643	0.521
		Age	-0.001	0.002	-0.013	-0.346	0.729
		Occupation	-0.009	0.006	-0.047	-1.372	0.171
		Health Satisfaction	0.09	0.029	0.113	3.08	0.002
		Family Satisfaction	0.228	0.04	0.231	5.704	0
		Social Life Satisfaction	0.268	0.039	0.268	6.792	0
		Personal Safety Satisfaction	0.139	0.036	0.146	3.876	0
		Financial Situation Satisfaction	0.053	0.028	0.071	1.871	0.062
		Home/Housing Satisfaction	0.067	0.035	0.073	1.895	0.059
		Current Job Satisfaction	0.115	0.031	0.135	3.697	0
Ireland	1	(Constant)	1.373	0.195		7.027	0
		Marital Status	0.024	0.013	0.085	1.821	0.069
		Age Education Ended	0	0.005	-0.001	-0.025	0.98
		Gender	-0.018	0.055	-0.015	-0.331	0.74
		Age	0.001	0.002	0.029	0.617	0.538
		Occupation	0.01	0.008	0.063	1.381	0.168
	2	(Constant)	0.087	0.166		0.521	0.602
		Marital Status	-0.006	0.01	-0.023	-0.627	0.531
		Age Education Ended	0.003	0.004	0.028	0.818	0.414
		Gender	-0.018	0.042	-0.015	-0.434	0.664
		Age	0.001	0.002	0.018	0.479	0.632
		Occupation	0.006	0.006	0.035	1.013	0.311
		Health Satisfaction	0.136	0.039	0.142	3.455	0.001
		Family Satisfaction	0.271	0.045	0.265	6.034	0
		Social Life Satisfaction	0.127	0.036	0.147	3.525	0

		Personal Safety Satisfaction	0.017	0.037	0.019	0.461	0.645
		Financial Situation Satisfaction	0.13	0.035	0.166	3.717	0
		Home/Housing Satisfaction	0.038	0.038	0.044	0.994	0.321
		Current Job Satisfaction	0.13	0.038	0.142	3.471	0.001
Great Britain	1	(Constant)	0.567	0.311		1.825	0.069
		Marital Status	0.041	0.012	0.16	3.451	0.001
		Age Education Ended	0.017	0.011	0.078	1.595	0.111
		Gender	-0.041	0.055	-0.034	-0.751	0.453
		Age	0.005	0.002	0.097	2.038	0.042
		Occupation	0.033	0.009	0.173	3.542	0
	2	(Constant)	-0.082	0.251		-0.326	0.744
		Marital Status	0.017	0.01	0.066	1.727	0.085
		Age Education Ended	0.003	0.008	0.014	0.368	0.713
		Gender	-0.053	0.044	-0.045	-1.215	0.225
		Age	0.004	0.002	0.073	1.899	0.058
		Occupation	0.004	0.007	0.022	0.565	0.572
		Health Satisfaction	0.184	0.039	0.186	4.696	0
		Family Satisfaction	0.18	0.042	0.181	4.288	0
		Social Life Satisfaction	0.182	0.034	0.221	5.279	0
		Personal Safety Satisfaction	0.028	0.031	0.035	0.912	0.362
		Financial Situation Satisfaction	0.097	0.031	0.128	3.106	0.002
		Home/Housing Satisfaction	0.111	0.037	0.13	2.992	0.003
		Current Job Satisfaction	0.105	0.031	0.129	3.369	0.001
Northern Ireland	1	(Constant)	1.404	0.49		2.866	0.005

		Marital Status	0.077	0.023	0.306	3.305	0.001
		Age Education Ended	-0.012	0.014	-0.077	-0.821	0.413
		Gender	0.028	0.1	0.025	0.28	0.78
		Age	0.002	0.004	0.052	0.561	0.576
		Occupation	-0.007	0.017	-0.041	-0.422	0.674
	2	(Constant)	0.385	0.425		0.904	0.368
		Marital Status	0.043	0.02	0.171	2.135	0.035
		Age Education Ended	-0.003	0.012	-0.017	-0.215	0.83
		Gender	-0.053	0.082	-0.048	-0.65	0.517
		Age	0.003	0.003	0.06	0.801	0.425
		Occupation	-0.017	0.014	-0.099	-1.233	0.22
		Health Satisfaction	0.148	0.085	0.156	1.739	0.085
		Family Satisfaction	0.094	0.111	0.079	0.852	0.396
		Social Life Satisfaction	0.13	0.06	0.175	2.148	0.034
		Personal Safety Satisfaction	0.005	0.076	0.006	0.071	0.944
		Financial Situation Satisfaction	0.007	0.064	0.01	0.114	0.909
		Home/Housing Satisfaction	0.237	0.101	0.243	2.342	0.021
		Current Job Satisfaction	0.161	0.064	0.215	2.513	0.013
Greece	1	(Constant)	2.187	0.338		6.469	0
		Marital Status	0.051	0.023	0.109	2.218	0.027
		Age Education Ended	-0.038	0.011	-0.18	-3.597	0
		Gender	0.195	0.086	0.11	2.271	0.024
		Age	0.008	0.004	0.095	1.862	0.063

		Occupation	-0.003	0.011	-0.015	-0.296	0.767
	2	(Constant)	0.273	0.304		0.898	0.37
		Marital Status	0.037	0.018	0.079	2.014	0.045
		Age Education Ended	-0.02	0.009	-0.093	-2.279	0.023
		Gender	0.1	0.069	0.056	1.446	0.149
		Age	0.004	0.003	0.049	1.181	0.238
		Occupation	-0.007	0.009	-0.032	-0.825	0.41
		Health Satisfaction	0.145	0.052	0.123	2.806	0.005
		Family Satisfaction	0.28	0.06	0.234	4.635	0
		Social Life Satisfaction	0.122	0.048	0.115	2.516	0.012
		Personal Safety Satisfaction	0.073	0.039	0.078	1.891	0.059
		Financial Situation Satisfaction	0.278	0.047	0.282	5.903	0
		Home/Housing Satisfaction	-0.016	0.05	-0.015	-0.324	0.746
		Current Job Satisfaction	0.049	0.046	0.048	1.068	0.286
Spain	1	(Constant)	1.106	0.244		4.538	0
		Marital Status	0.032	0.015	0.103	2.075	0.039
		Age Education Ended	0.003	0.005	0.025	0.492	0.623
		Gender	0.038	0.057	0.033	0.675	0.5
		Age	0.009	0.003	0.174	3.412	0.001
		Occupation	0.015	0.008	0.088	1.709	0.088
	2	(Constant)	-0.135	0.207		-0.651	0.515
		Marital Status	0.012	0.012	0.04	1.03	0.304
		Age Education Ended	0.003	0.004	0.033	0.828	0.408
		Gender	0.022	0.044	0.019	0.498	0.619

		Age	0.004	0.002	0.084	2.071	0.039
		Occupation	0.005	0.007	0.032	0.793	0.428
		Health Satisfaction	0.1	0.041	0.105	2.431	0.015
		Family Satisfaction	0.075	0.05	0.073	1.515	0.131
		Social Life Satisfaction	0.298	0.05	0.295	5.937	0
		Personal Safety Satisfaction	0.084	0.038	0.094	2.206	0.028
		Financial Situation Satisfaction	0.02	0.032	0.027	0.621	0.535
		Home/Housing Satisfaction	0.112	0.039	0.13	2.898	0.004
		Current Job Satisfaction	0.183	0.039	0.204	4.707	0
Portugal	1	(Constant)	1.544	0.255		6.06	0
		Marital Status	0.035	0.019	0.094	1.825	0.069
		Age Education Ended	-0.003	0.003	-0.048	-0.931	0.352
		Gender	0.07	0.076	0.047	0.914	0.361
		Age	0.005	0.003	0.08	1.558	0.12
		Occupation	0.017	0.011	0.079	1.536	0.125
	2	(Constant)	0.064	0.192		0.332	0.74
		Marital Status	-0.002	0.013	-0.007	-0.181	0.857
		Age Education Ended	-0.003	0.002	-0.052	-1.428	0.154
		Gender	-0.054	0.052	-0.036	-1.035	0.301
		Age	-0.003	0.002	-0.055	-1.497	0.135
		Occupation	-0.003	0.008	-0.013	-0.368	0.713
		Health Satisfaction	0.277	0.048	0.267	5.808	0
		Family Satisfaction	0.146	0.068	0.116	2.148	0.032
		Social Life Satisfaction	0.252	0.063	0.212	4.008	0
		Personal Safety Satisfaction	0.041	0.045	0.039	0.898	0.37
		Financial Situation Satisfaction	0.233	0.039	0.244	6.041	0

		Home/Housing Satisfaction	0.027	0.051	0.024	0.519	0.604
		Current Job Satisfaction	0.147	0.05	0.13	2.913	0.004
Germany East	1	(Constant)	1.752	0.54		3.245	0.001
		Marital Status	0.019	0.023	0.058	0.808	0.42
		Age Education Ended	-0.022	0.015	-0.114	-1.502	0.135
		Gender	-0.019	0.093	-0.014	-0.2	0.842
		Age	0.007	0.004	0.121	1.713	0.088
		Occupation	0.025	0.019	0.103	1.322	0.188
	2	(Constant)	0.516	0.472		1.092	0.276
		Marital Status	0.003	0.021	0.009	0.145	0.885
		Age Education Ended	-0.008	0.013	-0.042	-0.647	0.518
		Gender	-0.065	0.079	-0.05	-0.83	0.407
		Age	0.003	0.004	0.055	0.865	0.388
		Occupation	0	0.017	0	-0.006	0.995
		Health Satisfaction	0.132	0.067	0.135	1.966	0.051
		Family Satisfaction	0.156	0.064	0.172	2.437	0.016
		Social Life Satisfaction	0.098	0.06	0.119	1.639	0.103
		Personal Safety Satisfaction	0.026	0.061	0.028	0.431	0.667
		Financial Situation Satisfaction	0.303	0.065	0.355	4.695	0
		Home/Housing Satisfaction	-0.035	0.07	-0.033	-0.498	0.619
		Current Job Satisfaction	0.077	0.057	0.088	1.367	0.173
Finland	1	(Constant)	1.375	0.187		7.344	0
		Marital Status	0.029	0.012	0.113	2.53	0.012

		Age Education Ended	-0.003	0.004	-0.036	-0.813	0.417
		Gender	-0.083	0.047	-0.079	-1.79	0.074
		Age	0.003	0.002	0.061	1.354	0.176
		Occupation	0.016	0.008	0.096	2.087	0.037
	2	(Constant)	0.252	0.17		1.488	0.137
		Marital Status	0.002	0.01	0.009	0.239	0.811
		Age Education Ended	-0.002	0.003	-0.019	-0.528	0.598
		Gender	-0.03	0.038	-0.029	-0.782	0.435
		Age	0	0.002	0.006	0.158	0.875
		Occupation	0.005	0.006	0.03	0.789	0.43
		Health Satisfaction	0.162	0.03	0.205	5.309	0
		Family Satisfaction	0.279	0.039	0.302	7.189	0
		Social Life Satisfaction	0.07	0.037	0.079	1.881	0.061
		Personal Safety Satisfaction	0.092	0.037	0.094	2.474	0.014
		Financial Situation Satisfaction	0.023	0.033	0.03	0.709	0.479
		Home/Housing Satisfaction	0.122	0.034	0.146	3.603	0
		Current Job Satisfaction	0.11	0.033	0.131	3.34	0.001
Sweden	1	(Constant)	1.047	0.165		6.33	0
		Marital Status	0.067	0.013	0.217	5.35	0
		Age Education Ended	-0.005	0.003	-0.079	-1.935	0.054
		Gender	-0.13	0.049	-0.11	-2.668	0.008
		Age	0.007	0.002	0.136	3.345	0.001
		Occupation	0.026	0.008	0.132	3.22	0.001
	2	(Constant)	-0.168	0.156		-1.078	0.282
		Marital Status	-0.002	0.012	-0.006	-0.147	0.883

		Age Education Ended	-0.005	0.002	-0.071	-2.141	0.033
		Gender	-0.048	0.04	-0.041	-1.184	0.237
		Age	0.006	0.002	0.115	3.295	0.001
		Occupation	0.017	0.007	0.086	2.576	0.01
		Health Satisfaction	0.155	0.03	0.184	5.144	0
		Family Satisfaction	0.205	0.038	0.225	5.359	0
		Social Life Satisfaction	0.189	0.035	0.209	5.366	0
		Personal Safety Satisfaction	0.048	0.035	0.049	1.392	0.165
		Financial Situation Satisfaction	0.106	0.03	0.129	3.54	0
		Home/Housing Satisfaction	0.099	0.034	0.107	2.889	0.004
		Current Job Satisfaction	0.088	0.03	0.104	2.997	0.003
Austria	1	(Constant)	1.952	0.244		8.001	0
		Marital Status	0.042	0.012	0.157	3.621	0
		Age Education Ended	-0.016	0.008	-0.093	-2.108	0.035
		Gender	-0.087	0.048	-0.077	-1.793	0.074
		Age	0.003	0.002	0.064	1.452	0.147
		Occupation	-0.003	0.008	-0.019	-0.431	0.666
	2	(Constant)	0.422	0.193		2.185	0.029
		Marital Status	0.013	0.009	0.047	1.444	0.149
		Age Education Ended	-0.005	0.006	-0.026	-0.795	0.427
		Gender	-0.034	0.036	-0.03	-0.957	0.339
		Age	0.001	0.002	0.014	0.407	0.684
		Occupation	-0.01	0.006	-0.059	-1.766	0.078
		Health Satisfaction	0.135	0.033	0.154	4.099	0
		Family Satisfaction	0.162	0.034	0.183	4.719	0
		Social Life Satisfaction	0.216	0.038	0.227	5.72	0

		Personal Safety Satisfaction	0.072	0.031	0.082	2.307	0.021
		Financial Situation Satisfaction	0.101	0.029	0.133	3.455	0.001
		Home/Housing Satisfaction	0.083	0.035	0.095	2.391	0.017
		Current Job Satisfaction	0.101	0.03	0.123	3.356	0.001
Cyprus (Republic)	1	(Constant)	1.846	0.461		4	0
		Marital Status	0.031	0.031	0.067	1.023	0.307
		Age Education Ended	-0.02	0.011	-0.131	-1.843	0.067
		Gender	0.059	0.095	0.04	0.617	0.538
		Age	0	0.004	0.005	0.08	0.936
		Occupation	0.021	0.016	0.091	1.295	0.197
	2	(Constant)	-0.089	0.384		-0.232	0.817
		Marital Status	0	0.024	0.001	0.013	0.99
		Age Education Ended	-0.004	0.009	-0.026	-0.46	0.646
		Gender	0.015	0.075	0.01	0.204	0.838
		Age	-0.001	0.003	-0.018	-0.348	0.728
		Occupation	0.015	0.013	0.065	1.214	0.226
		Health Satisfaction	0.2	0.061	0.184	3.279	0.001
		Family Satisfaction	0.255	0.066	0.221	3.836	0
		Social Life Satisfaction	0.102	0.063	0.101	1.634	0.104
		Personal Safety Satisfaction	0.073	0.062	0.062	1.184	0.238
		Financial Situation Satisfaction	0.143	0.057	0.159	2.514	0.013
		Home/Housing Satisfaction	0.186	0.057	0.191	3.281	0.001
		Current Job Satisfaction	0.117	0.063	0.106	1.87	0.063
Czech Republic	1	(Constant)	1.615	0.166		9.749	0

		Marital Status	0.047	0.011	0.173	4.148	0
		Age Education Ended	-0.002	0.002	-0.053	-1.28	0.201
		Gender	-0.014	0.048	-0.012	-0.296	0.767
		Age	0.001	0.002	0.011	0.271	0.787
		Occupation	0.021	0.008	0.107	2.57	0.01
	2	(Constant)	0.397	0.166		2.395	0.017
		Marital Status	0.012	0.01	0.045	1.219	0.223
		Age Education Ended	-0.001	0.002	-0.028	-0.808	0.419
		Gender	-0.019	0.04	-0.017	-0.474	0.636
		Age	-0.001	0.002	-0.02	-0.547	0.584
		Occupation	0.006	0.007	0.033	0.933	0.351
		Health Satisfaction	0.142	0.036	0.151	3.931	0
		Family Satisfaction	0.209	0.036	0.252	5.752	0
		Social Life Satisfaction	0.094	0.036	0.106	2.65	0.008
		Personal Safety Satisfaction	0.063	0.033	0.071	1.908	0.057
		Financial Situation Satisfaction	0.072	0.031	0.093	2.301	0.022
		Home/Housing Satisfaction	0.069	0.033	0.081	2.082	0.038
		Current Job Satisfaction	0.139	0.035	0.158	4.023	0
Estonia	1	(Constant)	1.358	0.302		4.501	0
		Marital Status	0.042	0.012	0.165	3.424	0.001
		Age Education Ended	0.004	0.009	0.023	0.458	0.647
		Gender	-0.058	0.058	-0.049	-1	0.318
		Age	0.006	0.002	0.134	2.826	0.005
		Occupation	0.033	0.009	0.185	3.604	0
	2	(Constant)	0.096	0.277		0.348	0.728

		Marital Status	0.032	0.011	0.124	2.906	0.004
		Age Education Ended	0.005	0.008	0.026	0.607	0.544
		Gender	-0.051	0.049	-0.043	-1.031	0.303
		Age	0.006	0.002	0.129	3.062	0.002
		Occupation	0.01	0.008	0.058	1.329	0.184
		Health Satisfaction	0.012	0.04	0.013	0.293	0.77
		Family Satisfaction	0.177	0.041	0.195	4.335	0
		Social Life Satisfaction	0.046	0.042	0.047	1.089	0.277
		Personal Safety Satisfaction	0.007	0.039	0.008	0.192	0.848
		Financial Situation Satisfaction	0.247	0.036	0.319	6.908	0
		Home/Housing Satisfaction	0.079	0.036	0.094	2.181	0.03
		Current Job Satisfaction	0.143	0.042	0.151	3.378	0.001
Hungary	1	(Constant)	0.681	0.331		2.057	0.041
		Marital Status	0.076	0.02	0.209	3.75	0
		Age Education Ended	-0.005	0.008	-0.034	-0.612	0.541
		Gender	0.251	0.087	0.161	2.876	0.004
		Age	0.014	0.004	0.2	3.603	0
		Occupation	0.04	0.013	0.169	3.053	0.002
	2	(Constant)	-0.068	0.3		-0.227	0.82
		Marital Status	0.045	0.019	0.123	2.374	0.018
		Age Education Ended	-0.003	0.007	-0.023	-0.487	0.627
		Gender	0.053	0.077	0.034	0.686	0.493
		Age	0.008	0.004	0.105	2.03	0.043
		Occupation	0.011	0.012	0.047	0.968	0.334
		Health Satisfaction	0.134	0.052	0.139	2.583	0.01

		Family Satisfaction	0.136	0.052	0.146	2.591	0.01
		Social Life Satisfaction	0.168	0.052	0.176	3.257	0.001
		Personal Safety Satisfaction	0.01	0.051	0.01	0.193	0.847
		Financial Situation Satisfaction	0.331	0.055	0.348	6.072	0
		Home/Housing Satisfaction	-0.027	0.05	-0.031	-0.55	0.583
		Current Job Satisfaction	-0.002	0.05	-0.002	-0.046	0.963
Latvia	1	(Constant)	1.841	0.283		6.508	0
		Marital Status	0.038	0.014	0.13	2.697	0.007
		Age Education Ended	-0.004	0.008	-0.023	-0.468	0.64
		Gender	0.008	0.07	0.005	0.112	0.911
		Age	-0.001	0.003	-0.018	-0.373	0.709
		Occupation	0.033	0.011	0.152	3.06	0.002
	2	(Constant)	-0.129	0.246		-0.523	0.602
		Marital Status	0.006	0.012	0.021	0.524	0.601
		Age Education Ended	0	0.006	-0.003	-0.078	0.938
		Gender	-0.052	0.055	-0.036	-0.95	0.343
		Age	0	0.002	-0.007	-0.179	0.858
		Occupation	0.014	0.008	0.062	1.615	0.107
		Health Satisfaction	0.125	0.037	0.135	3.421	0.001
		Family Satisfaction	0.155	0.039	0.169	3.977	0
		Social Life Satisfaction	0.133	0.038	0.137	3.484	0.001
		Personal Safety Satisfaction	0.112	0.036	0.119	3.141	0.002
		Financial Situation Satisfaction	0.245	0.038	0.275	6.493	0
		Home/Housing Satisfaction	0.149	0.036	0.175	4.166	0

		Current Job Satisfaction	0.069	0.038	0.072	1.807	0.071
Lithuania	1	(Constant)	1.99	0.349		5.699	0
		Marital Status	0.034	0.015	0.123	2.357	0.019
		Age Education Ended	-0.027	0.011	-0.125	-2.393	0.017
		Gender	-0.014	0.071	-0.011	-0.205	0.838
		Age	0.012	0.003	0.206	4.049	0
		Occupation	0.016	0.011	0.078	1.479	0.14
	2	(Constant)	0.162	0.273		0.595	0.552
		Marital Status	-0.018	0.012	-0.065	-1.561	0.119
		Age Education Ended	-0.015	0.008	-0.069	-1.811	0.071
		Gender	-0.095	0.052	-0.07	-1.825	0.069
		Age	0.006	0.002	0.094	2.449	0.015
		Occupation	-0.003	0.008	-0.014	-0.374	0.709
		Health Satisfaction	0.216	0.036	0.239	5.911	0
		Family Satisfaction	0.149	0.037	0.177	4.054	0
		Social Life Satisfaction	0.249	0.046	0.253	5.423	0
		Personal Safety Satisfaction	0.063	0.034	0.073	1.853	0.065
		Financial Situation Satisfaction	0.192	0.042	0.212	4.589	0
		Home/Housing Satisfaction	0.154	0.035	0.18	4.447	0
		Current Job Satisfaction	-0.041	0.035	-0.047	-1.174	0.241
Malta	1	(Constant)	2.351	0.625		3.762	0
		Marital Status	0.003	0.038	0.006	0.07	0.944
		Age Education Ended	-0.041	0.016	-0.245	-2.495	0.014
		Gender	0.009	0.113	0.006	0.076	0.94
		Age	-0.003	0.005	-0.045	-0.498	0.619
		Occupation	0.014	0.021	0.068	0.698	0.486

	2	(Constant)	1.475	0.586		2.517	0.013
		Marital Status	-0.022	0.035	-0.051	-0.625	0.533
		Age Education Ended	-0.038	0.015	-0.228	-2.594	0.011
		Gender	0.027	0.107	0.02	0.249	0.804
		Age	-0.006	0.005	-0.1	-1.15	0.252
		Occupation	0	0.019	0.001	0.012	0.991
		Health Satisfaction	0.168	0.122	0.145	1.379	0.17
		Family Satisfaction	-0.103	0.121	-0.088	-0.845	0.4
		Social Life Satisfaction	0.295	0.081	0.318	3.62	0
		Personal Safety Satisfaction	0.103	0.088	0.103	1.168	0.245
		Financial Situation Satisfaction	0.168	0.076	0.196	2.205	0.029
		Home/Housing Satisfaction	-0.013	0.126	-0.011	-0.106	0.916
		Current Job Satisfaction	0.019	0.071	0.023	0.264	0.792
Poland	1	(Constant)	1.707	0.317		5.378	0
		Marital Status	0.029	0.017	0.096	1.753	0.081
		Age Education Ended	-0.021	0.012	-0.097	-1.759	0.079
		Gender	0.065	0.065	0.055	1.008	0.314
		Age	0.009	0.003	0.163	2.952	0.003
		Occupation	0.003	0.008	0.023	0.417	0.677
	2	(Constant)	0.117	0.287		0.407	0.684
		Marital Status	-0.004	0.014	-0.012	-0.261	0.794
		Age Education Ended	-0.003	0.01	-0.015	-0.333	0.739
		Gender	0.045	0.052	0.038	0.861	0.39
		Age	0.003	0.003	0.064	1.39	0.166

		Occupation	0.002	0.006	0.016	0.354	0.723
		Health Satisfaction	0.074	0.039	0.091	1.888	0.06
		Family Satisfaction	0.243	0.045	0.267	5.376	0
		Social Life Satisfaction	0.213	0.048	0.216	4.429	0
		Personal Safety Satisfaction	-0.004	0.037	-0.005	-0.102	0.919
		Financial Situation Satisfaction	0.082	0.038	0.108	2.178	0.03
		Home/Housing Satisfaction	0.167	0.041	0.202	4.091	0
		Current Job Satisfaction	0.054	0.036	0.07	1.499	0.135
Slovakia	1	(Constant)	1.325	0.18		7.341	0
		Marital Status	0.026	0.012	0.087	2.236	0.026
		Age Education Ended	-0.002	0.001	-0.044	-1.146	0.252
		Gender	0.051	0.048	0.041	1.056	0.291
		Age	0.007	0.002	0.122	3.162	0.002
		Occupation	0.026	0.008	0.128	3.31	0.001
	2	(Constant)	0.392	0.167		2.338	0.02
		Marital Status	-0.001	0.01	-0.004	-0.131	0.896
		Age Education Ended	-0.002	0.001	-0.041	-1.262	0.207
		Gender	0.039	0.04	0.031	0.968	0.333
		Age	0.001	0.002	0.021	0.611	0.542
		Occupation	0.002	0.007	0.01	0.301	0.763
		Health Satisfaction	0.138	0.034	0.149	4.031	0
		Family Satisfaction	0.239	0.037	0.262	6.438	0
		Social Life Satisfaction	0.148	0.034	0.165	4.3	0
		Personal Safety Satisfaction	0.021	0.034	0.021	0.609	0.543
		Financial Situation Satisfaction	0.164	0.029	0.204	5.634	0
		Home/Housing Satisfaction	0.017	0.039	0.017	0.447	0.655

		Current Job Satisfaction	0.032	0.031	0.036	1.001	0.317
Slovenia	1	(Constant)	1.289	0.232		5.556	0
		Marital Status	0.037	0.014	0.132	2.628	0.009
		Age Education Ended	-0.006	0.005	-0.059	-1.183	0.237
		Gender	0.035	0.054	0.031	0.637	0.525
		Age	0.005	0.003	0.095	1.864	0.063
		Occupation	0.02	0.009	0.113	2.243	0.025
	2	(Constant)	0.186	0.218		0.853	0.394
		Marital Status	0.018	0.013	0.063	1.407	0.16
		Age Education Ended	-0.005	0.005	-0.048	-1.122	0.263
		Gender	0.017	0.046	0.015	0.363	0.717
		Age	0.002	0.002	0.043	0.978	0.328
		Occupation	0.011	0.008	0.064	1.48	0.14
		Health Satisfaction	0.223	0.042	0.246	5.281	0
		Family Satisfaction	0.087	0.046	0.095	1.892	0.059
		Social Life Satisfaction	0.136	0.043	0.152	3.164	0.002
		Personal Safety Satisfaction	0.047	0.043	0.053	1.1	0.272
		Financial Situation Satisfaction	0.106	0.039	0.126	2.746	0.006
		Home/Housing Satisfaction	0.095	0.043	0.11	2.187	0.029
		Current Job Satisfaction	0.069	0.036	0.087	1.895	0.059
Bulgaria	1	(Constant)	1.498	0.327		4.583	0
		Marital Status	0.035	0.024	0.075	1.451	0.148
		Age Education Ended	0.003	0.006	0.028	0.546	0.585
		Gender	-0.092	0.088	-0.054	-1.047	0.296
		Age	0.011	0.004	0.145	2.818	0.005

		Occupation	0.042	0.013	0.172	3.285	0.001
	2	(Constant)	0.074	0.271		0.272	0.786
		Marital Status	0.017	0.02	0.036	0.851	0.395
		Age Education Ended	0.004	0.005	0.034	0.847	0.398
		Gender	-0.14	0.067	-0.083	-2.092	0.037
		Age	0.002	0.003	0.029	0.711	0.478
		Occupation	0.007	0.01	0.03	0.741	0.459
		Health Satisfaction	0.254	0.054	0.233	4.731	0
		Family Satisfaction	0.036	0.05	0.037	0.705	0.481
		Social Life Satisfaction	0.221	0.048	0.226	4.564	0
		Personal Safety Satisfaction	0.041	0.042	0.042	0.986	0.325
		Financial Situation Satisfaction	0.305	0.049	0.301	6.212	0
		Home/Housing Satisfaction	0.082	0.046	0.081	1.784	0.075
		Current Job Satisfaction	0.009	0.043	0.01	0.215	0.83
Romania	1	(Constant)	2.179	0.352		6.196	0
		Marital Status	0.058	0.02	0.156	2.936	0.004
		Age Education Ended	-0.01	0.008	-0.065	-1.195	0.233
		Gender	0.037	0.081	0.024	0.461	0.645
		Age	-0.006	0.004	-0.083	-1.585	0.114
		Occupation	0.032	0.012	0.145	2.631	0.009
	2	(Constant)	0.223	0.303		0.737	0.462
		Marital Status	0.018	0.016	0.048	1.095	0.274
		Age Education Ended	-0.001	0.006	-0.004	-0.105	0.917
		Gender	-0.099	0.062	-0.065	-1.593	0.112

		Age	-0.004	0.003	-0.053	-1.261	0.208
		Occupation	0.007	0.01	0.029	0.687	0.492
		Health Satisfaction	0.162	0.051	0.137	3.17	0.002
		Family Satisfaction	0.125	0.05	0.125	2.504	0.013
		Social Life Satisfaction	0.182	0.05	0.175	3.613	0
		Personal Safety Satisfaction	0.141	0.044	0.147	3.204	0.001
		Financial Situation Satisfaction	0.198	0.047	0.213	4.235	0
		Home/Housing Satisfaction	0.096	0.051	0.091	1.893	0.059
		Current Job Satisfaction	0.138	0.047	0.135	2.922	0.004

Appendix 6.1: Domain Satisfaction Questions

For each of the following, please tell me if you are very satisfied (1), satisfied (2), somewhat satisfied (3) neutral (4), somewhat dissatisfied (5), dissatisfied (6) or very dissatisfied (7)?

	Very satisfied	Satisfied	Somewhat satisfied	Neutral	Somewhat dissatisfied	Dissatisfied	Very dissatisfied
Your life in general	1	2	3	4	5	6	7
Your own health	1	2	3	4	5	6	7
Your family life	1	2	3	4	5	6	7
Your social life	1	2	3	4	5	6	7
Your personal safety	1	2	3	4	5	6	7
Your financial situation	1	2	3	4	5	6	7
Your home, housing	1	2	3	4	5	6	7

Your current job	1	2	3	4	5	6	7

Appendix 6.2: Single Item Positive Personality Questions

Variable	Question
Self-efficacy	I am confident in my ability to solve problems that I might face in life (For example: I can usually handle whatever comes my way, If I try hard enough I can overcome difficult problems, I can stick to my aims and accomplish my goals)
Self-esteem	Overall, I feel that I have positive self-esteem (For example: On the whole I am satisfied with myself, I am able to do things as well as most other people, I feel that I am a person of worth)
Optimism	In general, I feel optimistic about the future (For example: I usually expect the best, I expect more good things to happen to me than bad, It's easy for me to relax)