THE SOCIAL CORRELATES OF VALUE CONSENSUS

by

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Abstract

This paper examines societal value consensus, or the extent to which individuals within a culture share similar values. This topic has been extensively theoretically discussed, but has received limited empirical attention. This paper explores the social variables of economic equality, religiosity and religious homogeneity and their relation to value consensus. Publicly available data from the latest wave of World Values Survey (N = 73,256), CIA world factbook and the World Bank World Development Indicators are used for analysis. Results reveal that value consensus is not correlated with religiosity, religious homogeneity or economic equality. Implications of these findings, with specific reference to economic developmental theories are discussed.

The Social Correlates of Value Consensus

Culture influences almost every aspect of our lives. Child rearing practices, interpersonal communication, art, business and commerce, governance, food are just some of the aspects that are influenced and often determined by culture. Yet, culture and the individual within the culture are two sides of a coin. Culture shapes the individual and vice versa. (Kitayama & Cohen, 2007; Shweder, 2003). However, even as culture influences practically every aspect of who we are and how we live, it is difficult to study or measure directly. To investigate the cultural orientation in a society, we could look at differences in perception, cognitive processes, morality, cultural artifacts or socialization processes; but what they all seek, implicitly or explicitly are the underlying value emphases. Therefore, studying value emphases are an especially efficient way to capture and characterize cultures (Schwartz, 2006).

According to Schwartz (1992 p.1) "Values are criteria people use to select and justify actions and to evaluate people (including the self) and events." They are seen as fundamental concepts that define culture by numerous researchers (Hostede, 1980; Inglehart, 1997; Kluckhohn, 1951; Schwartz, 1992). Cultural value emphases shape and validate group beliefs, action and goals. Institutional arrangements and policies, norms and other daily practices express underlying cultural and value emphases in society. For example, a cultural emphasis on success and ambition may be reflected in highly competitive economic systems and child rearing practices that pressure children to achieve.

The above rationale of studying values as an avenue of studying culture has been adopted by several researchers. Notable among them are the works of Hofstede

(1980;1984;1991;2001), Inglehart (1995;1997;2006) and Schwartz

(1992;1994;2006;Schwartz & Bardi, 2001).

Hofstede (1980;1984;1991;2001) conducted surveys of the employees at IBM and posited that the national cultures he examined could be positioned on four independent value dimensions 1) High vs. low power distance, or the presence of a social hierarchy in a culture 2) High vs. low uncertainty avoidance, or the extent to which individuals enjoy uncertainty or desire certainty 3) Individualism vs. collectivism, or the degree to which individuals define themselves as independent entities or as a member of a group and 4) Masculinity vs. femininity, or the presence of either masculine or feminine values within a culture. He later extended his framework to also include long vs. short term orientation.

Inglehart, (1995; 1997; 2006) using the process of modernization as an explanation, divided all national cultures between two of four categories: traditional vs. secular rational values and survival vs. self expression values. He suggested that modernization moves societies from the traditional towards the secular rational values and from survival to self expression values.

Although the Hofstede and Inglehart frameworks have been influential in the field of organizational behavior and sociology respectively, they have been criticized because they identify a set of values with nations based on the assumption that there is a uniform national culture within each nation (Ailon, 2008). An alternate framework, the Schwartz Value Framework describes countries using more number of values and has been described below.

Schwartz Value Framework

The Schwartz value framework includes 10 motivationally distinct, yet interrelated values (See appendix, table 1). This theory was derived by providing participants with a list of 56 value items (such as Social justice, humility, creativity, harmony) and asking the participants to rate that value in terms of it being "*the guiding principle of your life.*" The responses for each of the 56 values were then content analyzed and subjected to a statistical procedure called *smallest space analysis* (see Schwartz, 1992) and then synthesized into a framework of 10 inter related values.

The pursuit of one type of value may be closely related to or in opposition with another value within the framework. For example, the pursuit of novelty and change (stimulation values) is likely to be in conflict with preservation of time honored customs (tradition values). This congruence and conflict of values is depicted through the relative distance of various values from each other in the diagrammatic description of the framework.

Value Consensus

Value consensus is defined as the extent to which individuals within an interindividual structure share the same values (Schwartz & Sagie, 2000; Shils, 1975). In other words, the level of agreement there is within a culture on what is considered valuable, irrelevant, heinous, laudable etc is referred to as value consensus.

Value consensus dictates social norms and mores in a culture (Partridge, 1971). It is the cornerstone of democracy, governance, the corpus of law, and the formation of the constitution (Parsons, as cited in Partridge, 1971). The way each one of us lives our lives is, to a large extent, dependent on these social norms and systems. Understanding value

consensus is vital in furthering positive social goals such as increasing social stability and encouraging peaceful conflict resolution. A consensus of values also limits the area and issues of conflict (Partridge, 1971; Shils, 1975). Adherence to shared values engenders a sense of identity and acceptance of common goals as well as agreement on the norms for how these goals should be achieved (Cohen, 1968; Kahl, 1968).

However, analogous to Shweder's (2003) assertion about how culture and psyche "dynamically make each other up", value consensus and individual values, also mutually and inextricably constitute each other. Societal values are a reflection of individual values and at the same time, societal values help shape individual values. But even as value consensus has the above mentioned important features and has received much attention in theoretical discussions, it has received scant empirical attention (Rossi & Berk, 1985; Schwartz & Sagie, 2000). Most psychological research on cultural differences in values (c.f. Abramson & Inglehart, 1995; Schwartz & Bardi, 1997; Schwartz & Ros, 1995; Smith & Schwartz, 1997; Triandis, 1990) has focused on value importance - how national groups differ in the importance they attribute to various values and their implications; but the extent to which individuals within these cultures share the same values has not been studied adequately. Previous research on value consensus is discussed below.

Socio economic development and value consensus

*S*ocio economic development is defined as the process of simultaneous growth in the national income as well as factors that improve quality of life throughout the population. (Szirmai, 2005). Socio economic development was found to be positively correlated with value consensus (Schwartz & Sagie, 2000). Socio economic development showed a significant positive correlation with value consensus from the Schwartz Value

Framework after controlling for democratization. Schwartz and Sagie (2000) suggest that similar to Shil's (1975) hypothesis, socio economic development brings the different segments of the population under the influence of an integrated economic and political system. It engenders more widely shared experiences in common social institutions. People from various strata of the society obtain information from the same national media, send their children to the same centralized education system, work under the conditions of an integrated labor market, and are exposed to shared political ideas. All sections of the population are progressively integrated into the centralized institutional and value system of society. Consequently, people of differing socio cultural backgrounds gradually develop similar values. In other words, socio economic development leads to greater equality in a culture, which leads to greater value consensus. However, the direct relationship between economic equality and value consensus has not been tested. Past research (Kuznets, 1955; Ahluwalia, 1976; Ram, 2006) has found that the relationship between socio economic development and economic equality exhibits an inverted U shaped function. That is, as a country develops, economic inequality first increases and then decreases after reaching its peak. This proposition holds true even for developed and socialistic countries. The factors that drive this increase in equality in the latter stage include shifts in the structure of production, expansion in educational attainment and resultant increase in the skill level of labor force and reduction in rate of growth of population (Ahluwalia, 1976). Furthermore, in this study, socio economic development was not significantly correlated with value consensus before controlling for democratization. Thus, the first hypothesis of the present study is that economic equality is positively correlated with value consensus.

Religiosity, religious homogeneity and values

Religiosity is defined as the extent to which an individual adheres to an institutionally based set of beliefs concerning the cause, nature, and purpose of the universe and human life (Pargament, 1992). It also refers to the adherence to moral codes of behavior prescribed by religion (Durkheim, 1912). Religious homogeneity, on the other hand, indicates how much one particular religious group predominates at the national level, without taking into account the level of religiosity of the members of that religion in that particular country (Mullins, Brackett, Bogie & Pruet, 2004). For the purpose of this study, various sub-sections within a larger religion (such as Catholics and Protestants within Christianity) are considered separately.

Several studies have investigated the relationship between Religiosity and Value priorities (see for example Burris & Tarpley, 1998; Devos, Spini & Schwartz, 2002; Dollinger, 2001; Roccas & Schwartz, 1997), particularly with respect to the Schwartz value framework. Saroglou, Delpierre and Dernelle (2003) in a meta-analysis, found that religious people tend to score high on values such as Tradition, Conformity, Security and Benevolence, and score low on Stimulation and Self direction, Hedonism, Achievement and Power.

However, in order to get a complete picture of the cross-cultural differences in values, it is not sufficient to only study value priorities, or which values are important. The degree of agreement on the importance of these values must also be taken into consideration. This study addresses this dearth by examining value consensus and its relationship with economic equality, religiosity and religious homogeneity. Moreover, the relationship between value priorities and value consensus is neither strong, nor

consistent, according to Schwartz & Sagie (2000). They correlated the mean importance of each value type with its consensus index across 42 countries and found that the correlations ranged from -.30 (power) to .56 (security) which is neither high, nor consistent across values.

Thus, the second hypothesis is that religiosity is positively correlated with value consensus. Dissemination of religion through socialization may be considered part of the more general dissemination of values. Conversely, individuals with specific value systems may seek out religion in general and/or a specific religion in particular, because they provide mechanisms that may positively or negatively reinforce these values (Schwartz & Huismans, 1995). Thus, individuals that are highly religious will have more widely shared common values.

The next hypothesis is that religious homogeneity is positively correlated with value consensus. If a greater number of individuals within a country belong to the same religion, regardless of the level of religious commitment, they will have similar values. Being part of one religion builds a sense of community which, in turn, would be related to the development of similar values. Furthermore, religious affiliation may have a stronger association with the development of similar values than other factors that citizens of a country might share like common government, history, national culture, etc.

Hypotheses

To summarize, the hypotheses for this study are:

H_1: Economic equality is positively correlated with value consensus.

H_2: Religiosity is positively correlated with value consensus.

H_3: Religious homogeneity is positively correlated with value consensus.

Method

Publicly available data were used in this study. This study was exempted from review by the IRB as it was not considered human subjects research as defined by Federal and University regulations.

Participants

The dataset used for this study is World Values Survey dataset, a survey initiated with an objective to study changes in values across the world and over time that has been administered to a total of 257,000 respondents in 80 countries over a span of almost 30 years.

This study uses the latest (2005 – 2008) wave of the WVS, which is the only wave that includes the Schwartz Value Survey. It has been administered to over 77,000 participants in 53 countries. The gender distribution was near equal within the participants in this survey. Random probability samples were obtained wherever possible.

Procedure

In each country, a Principal Investigator (PI) was responsible for conducting the survey in accordance to fixed rules and regulations laid down by the WVS Executive Committee (EC) to ensure maximum reliability and validity. Data were collected from multiple cities within each country to ensure maximum representativeness of the sample. Use of core questionnaire translated into the local language was mandatory. The questionnaires were back translated to ensure equivalency of questionnaires. The sampling and documentation procedures were accepted by the EC before data collection started. During the fieldwork, the agency had to report in writing in accordance to a specific checklist. Items on the checklist included: questionnaire, sample, universe,

remarks about sampling, survey procedure, sample size, response rate, and weighting. Face to face interviews were conducted by PIs in some countries, whereas paper and pencil tests were conducted in others, after considering the mean reading proficiency of the country.

Internal Consistency checks were made between sampling design and the outcome and rigorous data cleaning procedures are followed at the WVS data archive. No country was included in a wave before full documentation was delivered (World Values Survey, 2009).

Measures

Value Consensus

Values are seen in terms of the Schwartz Value Framework (SVF). Specifically, an adapted version of the SVF, the Portrait Values Questionnaire (PVQ) was used. In the PVQ, participants were provided with short portraits of 29 different people. Each one described a person's aspirations or goals that point implicitly to the importance of a value. For example *"Thinking up new ideas and being creative is important to this person. He likes doing things his own original way"* describes a person for whom self direction is important. For each portrait, participants answered *"How much like you is this person"* and respondents checked one of six boxes ranging from *"very much like me"* to *"not like me at all."* Participant's values are inferred from their self reported similarity to the portraits described implicitly in terms of their values. To analyze the data, the standard deviation of respondents' scores within a national group was taken (see table 2).

Religiosity

The Religiosity scale used in the WVS measures various aspects of an individual's religious behavior as well as beliefs. Although many religious people may display overt religious behavior, they may do so out of habit or compulsion and may thus lack religious conviction. Taking this into consideration, the scale also measures religious beliefs, or the extent to which individuals feel that religious institutions *"give the answer to life's problems"*

This religiosity scale has been standardized by the creators of the survey and has been widely used as a measure of religiosity in several studies (see for example, Inglehart & Norris, 2004 ; Esmer, Klingemann, & Puranen B, 2009; Esmer, 2001) (see table 3).

Religious homogeneity

Religious homogeneity is the percentage of individuals that belong to the dominant religion of each country. This information is obtained from the CIA World factbook (see table 3).

Socio economic development:

Socio economic development is measured using virtually all the same indicators that were used in the Schwartz & Sagie (2000) study. They are 1) Gross National Product (GNP) per capita for the current year 2) percentage of economically active population not engaged in agriculture in the current year 3) percentage enrolled in secondary education (see table 4). This study differs from the earlier study in the fourth indicator. The original study uses number of phones per thousand individuals as an indicator. Although the study was published in 2000, the data used to measure socio economic development were obtained between the period of 1986 – 1990. Since the proliferation of mobile phones, the

average number of phones per thousand individuals has become somewhat of an obsolete

indicator of socio economic development. Hence the present study instead used

percentage of internet users in the population, as it is a better indicator of socio economic

development at the present time (Chinn & Fairley, 2002). These four indicators were

summed and standardized to form an index of socio economic development. The data for

percentage of the population not engaged in agriculture and percentage of internet users

in the population were obtained from the CIA world factbook (2010), whereas percentage

of age appropriate population engaged in secondary education and the GNP per capita

were obtained from the World Bank's world development indicators (2010) (see table 5).

The data from the world factbook and the world development indicators is secondary data

obtained from sources such as Antarctic Information Program (National Science

Foundation), Armed Forces Medical Intelligence Center (Department of Defense),

Bureau of the Census (Department of Commerce), Bureau of Labor Statistics

(Department of Labor), Central Intelligence Agency, Council of Managers of National

Antarctic Programs, Defense Intelligence Agency (Department of Defense), Department

of Energy, Department of State, Fish and Wildlife Service (Department of the Interior),

Maritime Administration (Department of Transportation), National Geospatial-

Intelligence Agency (Department of Defense), Naval Facilities Engineering Command

(Department of Defense), Office of Insular Affairs (Department of the Interior), Office of

Naval Intelligence (Department of Defense), US Board on Geographic Names

(Department of the Interior), US Transportation Command (Department of Defense), Oil

& Gas Journal, and other public and private sources. (CIA world factbook, 2010)

Economic equality:

To measure socio economic equality, we used the Gini index for economic inequality. The Gini coefficient is a ratio derived from the Lorenz curve. The Lorenz curve follows the cumulative income share on the vertical axis and cumulative population contribution to national income on the horizontal axis (see fig.1). For example, if the poorest 40% contribute to 20% of the national income and the poorest 60% contribute to 40% of the total national income, the Lorenz curve will pass through all these points until the 100% mark. The Lorenz curve would be a diagonal line (called the Line of Equality) passing through the origin at 45 degrees to both axes if there were perfect equality in the economy, that is, if 10% of the population contributed to 10% of the national income and so on. The Gini coefficient is a ratio between the areas above the Lorenz curve to the entire triangular area under the Line of Equality (World Bank, 2010). It is a widely used and reliable index for measuring economic inequality between countries (Gastwirth,1972 ; Yitzhaki, 1983 ; Ogwang, 2000). This variable too was obtained from the CIA world factbook (2010) (see table 4).

Data cleaning:

Prior to analysis, the responses coded "*Don't know*" and "*Not answered*" were deleted. Countries in which neither the religiosity questionnaire nor with PVQ were asked (11 countries) were eliminated from analysis. Thus, only 42 countries were used in the analysis for value consensus, religiosity, and religious homogeneity. Furthermore, since data were available only for 40 of the countries for economic equality and 31 of them for socio economic development in the world factbook and world development indicators, only those number of countries were used to correlate those variables (see

table 4). To correlate religiosity and mean value importance at the individual level, data of participants from all countries who did not answer one of 10 PVQ questions were deleted.

<center>Results</center>

Relation to prior studies

Since publicly available data have been used, findings from a meta analysis on religiosity and value importance (Saroglou , Delpierre & Dernelle, 2003) were compared to those obtained from the current dataset to examine its similarity to the datasets previously used. Saroglou et al (2003) found that the values of Tradition, Conformity, Self direction, Stimulation and Hedonism were significantly correlated with religiosity. These correlation coefficients were compared to the coefficients obtained by correlating the same variables at the individual and country level using the data from the WVS. It was found that the country level correlation coefficients from the WVS and those of Saroglou et al (2003) were not significantly different from each other, but the individual level coefficients differed significantly from those of Saroglou et al (2003) (see table 5).

The correlations of the individual level data were found to be much smaller than the country level data because much of the random measurement error normally found in survey data cancels out in country level analysis (Inglehart & Baker, 2000).The individual level correlation coefficients may be significantly different from Saroglou et al (2003) because the total number of participants in each country in the WVS was not equal. For example, there were 3052 participants in Egypt, but only 1001 in Poland, Argentina and most other countries. Therefore, some countries had more weightage in the correlations than others. Secondly, the average number of participants from each country

in Saroglou et al. was 446, whereas the lowest number of respondents in any country for the WVS was 1000. Moreover, there were only 5 countries in common between those used in the meta analysis of Saroglou et al (2003) and those used in the WVS. While countries from the WVS spanned all 5 habited continents, countries used in the meta analysis were all from the western hemisphere.

Relation between socio economic development and economic equality

Next, a polynomial regression was performed to ascertain if the relationship between socio economic development and economic equality is curvilinear even with the data used in this study. Analysis indicated that the polynomial regression was not significant (p=0.11) which means that socio economic development and economic equality do not share a curvilinear relationship. However, the results of a linear regression revealed a significant positive correlation (r= 0.41; p< 0.05). The 31 countries used for this analysis may not equally represent the different stages of economic development. This could contribute to why a curvilinear relationship was not observed between economic equality and socio economic development.

A graphical representation of this relationship can be seen in fig. 2. There are three outliers in this graph, namely South Africa with a Gini index of 65, Brazil with a Gini index of 56.7 and U.S.A with a socio economic development (SED) index of 287.93 and a Gini index of 45. South Africa has an exceptionally high Gini index due to massive unemployment and sectional inequalities in income (Kingdon & Knight 2004; May, 2004). Brazil is an outlier on account of rapid industrialization in the past 30 years, export of low value added goods, power of the economically elite to influence government policies in their favor and neglect of education. (Skidmore, 2004). The

U.S.A goes against the trend and has a high Gini index in spite of a high SED index due to an emphasis on capitalism and high degree of industrialization (Deininger & Squire, 1996; Piketty & Saez, 2003).

Religiosity and Value Consensus

A Pearson correlation was performed between mean religiosity and the value consensus index per country. Based on prior research, the hypothesis was that religiosity would be positively correlated with value consensus. Statistical analysis indicated that there was no significant correlation (r=0.13).

Religious homogeneity and Value consensus

A Pearson correlation was performed between mean religious homogeneity and the value consensus index. I predicted that religious homogeneity would be positively correlated with value consensus, but results indicated that they were not significantly correlated(r=-0.22). *Economic equality and Value Consensus*

Here again, a Pearson correlation was performed for the national economic equality index and value consensus index. The hypothesis here was that economic equality is positively correlated with value consensus. Statistical analysis revealed no significant correlation between variables (r= 0.09).

General Discussion

Value consensus is the cornerstone of most major social institutions and is associated with numerous positive outcomes such as conflict reduction and co-operation (Parsons, as cited in Partridge, 1971). In this study, we sought to investigate the social correlates of value consensus, namely religiosity, religious homogeneity and economic equality. Based on evidence from prior studies, the hypotheses were that value consensus

will be positively correlated with all three of these variables. Analyses demonstrated that value consensus was not significantly correlated with any of them.

The finding that economic equality is not correlated with value consensus contradicts the hypotheses put forth by Schwartz & Sagie (2000), since they suggested that the equality resulting from socio economic development is related to value consensus. The findings from the present study indicate that economic factors are not related to value consensus and cultural factors are more strongly related to the value consensus of individuals within a society.

The above contradiction in findings effectively illustrates the views of two opposing schools of economic developmental theories. The *convergent* school predicts the decline of traditional values and their replacement with "modern" values with rising economic development. This is the founding principle of modernization theory which posits that economic development is linked with changes in culture and social and political life (Bell, 1973; Bernstein, 1971; Scott, 1995; Tipps, 1973). The other school of thought emphasizes the *persistence* of traditional values despite economic and political changes. It assumes that values are relatively independent of economic conditions (DiMaggio, 1994). Consequently, it predicts that convergence around some set of "modern" values is unlikely and that traditional values will continue to exert an independent influence on the cultural changes caused by economic development.

Thus, the findings from present study further the persistence school of economic developmental theories. The agreement on important values does not change significantly with increasing socio economic development or equality. This indicates that there are other factors such as historic religious background (Inglehart & Baker, 2000) age

structure, colonial domination, political situation that are more strongly related to value consensus in a nation than socio economic development. Furthermore, the present finding could also be indicative of the fact that Schwartz & Sagie's (2000) use of matched samples of school teachers in measuring value consensus could have compromised the validity of their results. Even Schwartz & Sagie (2000, p. 492) mention that "It is essential to replicate the study with data from a large group of representative samples or from other types of matched samples. Until this is done, our findings remain tentative." This study was a replication of theirs using a large representative sample, but their findings were not replicated.

It was also found that religiosity was not significantly correlated with value consensus. This indicates that it is not extent of religious commitment but other cultural factors that are related to value consensus. Analyses also revealed that religious homogeneity was not significantly correlated with value consensus. These two findings indicate that it is national culture based on historical cultural or religious foundations and not level of religiosity or current level of religious homogeneity that were related to the values of individuals. Inglehart & Baker (2000) also found that the basic values of German Catholics resemble those of German Protestants more than they resemble Catholics of other countries. This was true even of Hindus and Muslims in India, between Christians and Muslims in Nigeria and other religiously diverse countries. Thus, Inglehart & Baker (2000) concluded that religious traditions have historically shaped the national culture of a given society and that their impact is transmitted mainly through nationwide institutions, to the population of the society as a whole, even to those who have little to no contact with religious institutions.

Among the individual components of the socio economic development index, literacy was found to be marginally positively correlated with value consensus (r=-0.24; p= 0.07)*. None of the other correlations with individual indicators of socio economic development were significant (GNI/capita = -0.06, percentage of internet users= -0.18, percentage not engaged in agriculture= -0.12). This provides further evidence for the above point that important values within a national culture are transmitted through national public institutions such as schools, colleges and universities.

Value consensus is associated with positive social outcomes such as conflict reduction and co-operation. Results from this study will inform practical research that seeks to further the aforementioned social goals. Furthermore, there is a significant amount of dissensus in values within some national cultures (Schwartz & Sagie, 2000). This dissensus must be taken into account while making generalizations about them. Studies such as these will help us obtain more information about value consensus within particular cultures, characterizing national cultures in terms of its homogeneity or heterogeneity in values. Thus, this study also provides findings which can be utilized by researchers who wish to make generalizations about national cultures.

However, the study also has some limitations. There is only one item per value, which compromises the validity of the survey. The interval points *Somewhat like me* and *A little like me* seem semantically confusing and thus may be a threat to the reliability and validity of the responses.

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*The sign for the correlation is negative, since standard deviation was used in the analysis, which is the reciprocal of value consensus.

There are shortcomings that stem from the value framework itself. Since the 56 root values that the theory was developed with were an extension of the Rokeach value framework (Schwartz, 1992) there could be values that are salient in the value systems of individuals (like trust) that have not been considered in the Schwartz value framework. Furthermore, there were cultures where the 10 values of Schwartz value framework did not typify the important values in the culture. (Schwartz, 1992 p. 27) hence the framework may not be ideal for measuring values in all countries.

There may be mediating variables such as education, age structure of the population, colonial domination, or wars that could be affecting the relationship between the variables under study which have not been considered. This is a worthwhile direction for future studies in this area. Future research can also examine value consensus by using the Hofstede value framework to verify if value consensus is related to economic factors, as seen through these values.

Hofstede (1980;1984;1991;2001) positioned cultures based on four independent value dimensions 1) High vs. low power distance, or the presence of a social hierarchy in a culture 2) High vs. low uncertainty avoidance, or the extent to which individuals enjoy uncertainty or desire certainty 3) Individualism vs. collectivism, or the degree to which individuals define themselves as independent entities or as a member of a group and 4) Masculinity vs. femininity, or the presence of either masculine or feminine values within a culture. He later extended his framework to also include long vs. short term orientation. Inglehart, (1995; 1997; 2006) divided all national cultures between two of four categories: traditional vs. secular rational values and survival vs. self expression values. Neither of these frameworks is exhaustive of all values, and there are certain nuances of

values captured in one framework, that are not addressed in the others (Morinaga

Shearman, 2007). Thus, it would be worthwhile to study value consensus using the other

value frameworks to see if it leads to different results.

Appendix

Schwartz value survey

(Show card L)

Now I will briefly describe some people. Using this card, would you please indicate for each description whether that person is very much like you, like you, somewhat like you, a little like you, not like you or not like you at all.

V80. It is important for this person to think up new ideas and to be creative; to do things one's own way

Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
1	2	3	4	5	6

V81. It is important to this person to be rich; to have a lot of money and expensive things

Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
1	2	3	4	5	6

V82. Living in secure surroundings is important to this person; to avoid anything that is dangerous

Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
1	2	3	4	5	6

V83. It is important to this person to have a good time; to spoil oneself

Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
1	2	3	4	5	6

V84. It is important to this person to help the people nearby; to care for their well being

Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
1	2	3	4	5	6

V85. Being very successful is important to this person; to have people recognize their achievements

Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
1	2	3	4	5	6

V86. Adventure and taking risks are important to this person; to have an exciting life

Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
1	2	3	4	5	6

V87. It is important to this person to always behave properly; to avoid doing anything that people would say is wrong

Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
1	2	3	4	5	6

V88. Looking after the environment is important to this person; to care for nature

Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
1	2	3	4	5	6

V89. Tradition is important to this person; to follow the customs handed down by one's religion or family

Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
1	2	3	4	5	6

Religiosity scale (Campbell, 1964)

(Show Card X)

V186. Apart from weddings and funerals, about how often do you attend religious services these days? (Code one answer):

1 More than once a week
2 Once a week
3 Once a month
4 Only on special holy days
5 Once a year
6 Less often
7 Never, practically never
    (NOTE: In Islamic societies, ask how frequently the respondent prays!)

V187. Independently of whether you attend religious services or not, would you say you are (read out and code one answer):

1 A religious person
2 Not a religious person
3 An atheist

V189.Generally speaking, do you think that the [churches]* in your country are giving adequate answers to (read out and code one answer for each):

	Yes	No
V188. The moral problems and needs of the individual	1	2
V189. The problems of family life	1	2
V190. People's spiritual needs	1	2
V191. The social problems facing our society.	1	2

Table 1. Definitions of values in terms of their goals and the values that represent them.

(Schwartz & Sagie, 2000)

Type	Definition	Values
Self direction	Independent thought and action (choosing, creating, exploring)	Creativity, freedom, independent, choosing own goals
Stimulation	Excitement, novelty, and challenge in life	Daring, a varied life, an exciting Life
Hedonism	Pleasure and sensuous gratification for oneself	Pleasure, enjoying life
Achievement	Achievement, personal success through demonstrating competence according to social standards	Successful, capable, ambitious, influential
Power	Social status and prestige, control or dominance over people and resources	Social power, authority, wealth
Security	Safety, harmony, and stability of society, relationships, and self	Family security, national security, social order, clean, reciprocation of favors
Conformity	Restraint of actions, inclinations, likely to upset others and violate social expectations or norms	Self-discipline, obedient, politeness and impulses or honoring parents and elders
Tradition	Respect, commitment, and acceptance of the customs and ideas that traditional culture or religion provide	Accepting one's portion in life, humble, devout, respect for tradition, moderate
Benevolence	Preservation and enhancement of the welfare of people with whom one is in frequent personal contact	Helpful, honest, forgiving, loyal, responsible
Universalism	Understanding, appreciation, tolerance, and protection for the welfare of all people and nature	Broadminded, wisdom, social justice, equality, a world at peace, for a world of beauty, unity with nature, protecting the environment

Fig 1. Lorenz curve and Gini index
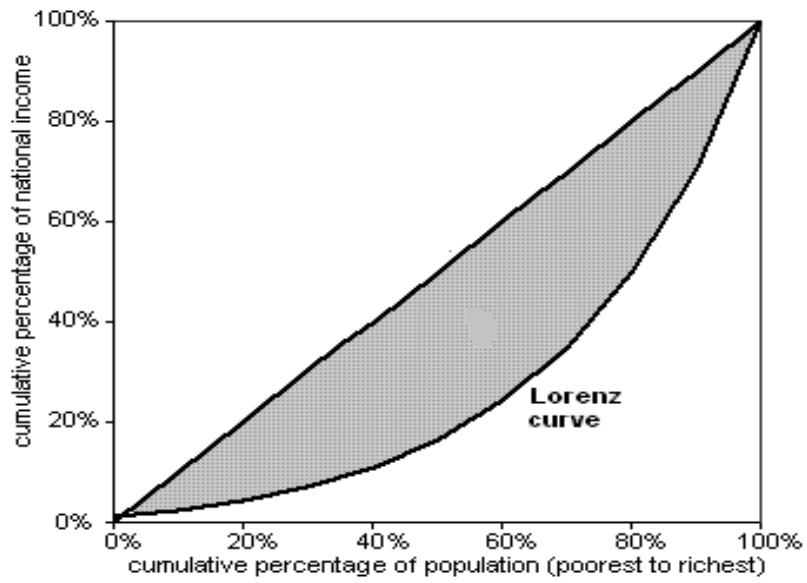
(Quickstep knowledge database, (2010)

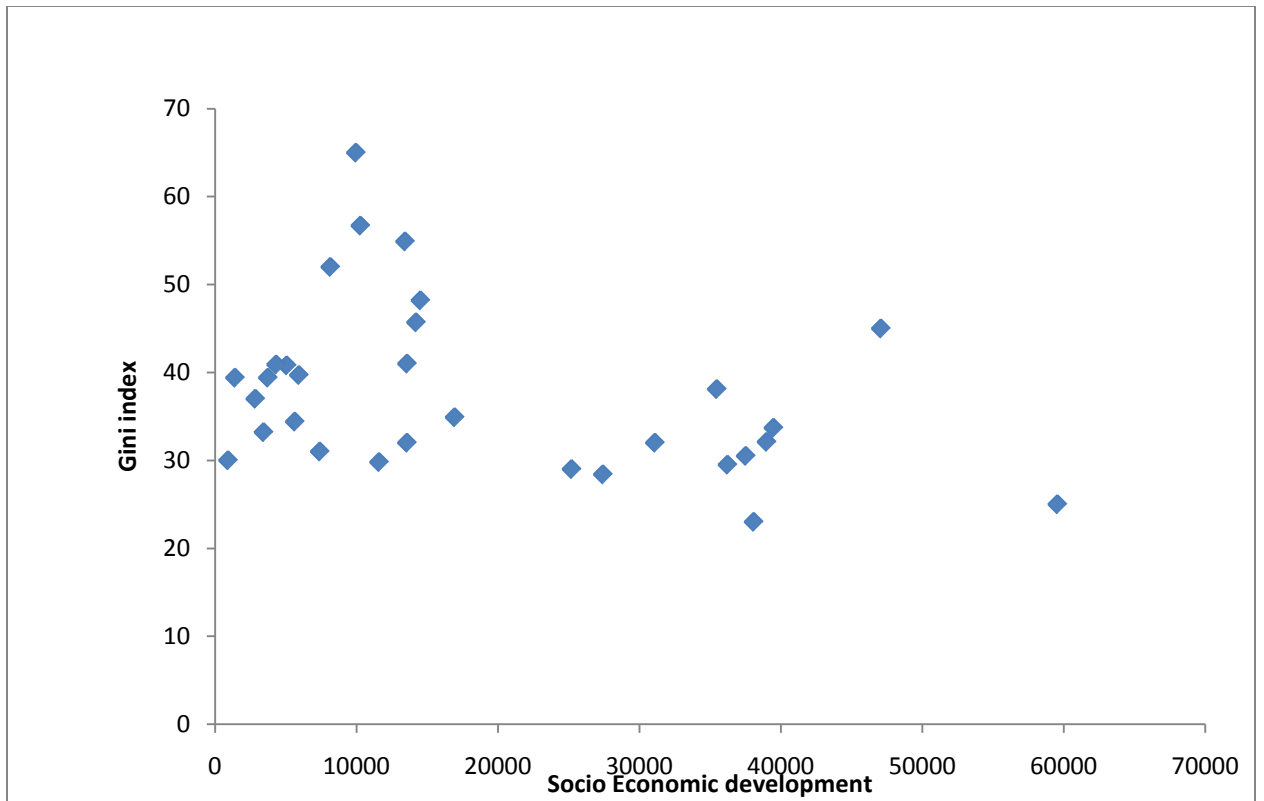Fig 2. Relationship between socio economic development and economic inequality

Table 2. Mean Value Consensus per country

Country	Standard deviation
Spain	1.12
United States	1.28
Canada	1.30
Japan	1.13
Mexico	1.45
South Africa	1.22
Australia	1.30
Norway	1.22
Sweden	1.24
Argentina	1.33
Finland	1.23
Poland	1.18
Switzerland	1.26
Brazil	1.22
Chile	1.47
India	1.42
Germany	1.28
Slovenia	1.31
Bulgaria	1.33
Romania	1.23
Turkey	1.23
Ukraine	1.35
Peru	1.35
Uruguay	1.38
Ghana	1.16
Moldova	1.31
Georgia	1.21
Thailand	1.09
Indonesia	1.22
Vietnam	1.14
Serbia	1.32
Egypt	1.32
Morocco	1.34
Jordan	0.97
Cyprus	1.34
Malaysia	1.22
Burkina Faso	1.41
Ethiopia	1.42
Mali	1.37
Rwanda	1.36
Zambia	1.43
Iran	1.24

Value consensus is the reciprocal of standard deviation

Table 3. Mean religiosity and religious homogeneity per country

Country	Mean Religiosity	SD	Religious homogeneity
Spain	1.36	0.1	94
United States	1.6	0.13	51.3
Canada	1.55	0.16	42.6
Japan	1.22	0.11	83.9
Mexico	1.64	0.12	76.5
South Africa	1.75	0.11	11.1
Australia	1.43	0.12	25.8
Norway	1.29	0.16	85.7
Sweden	1.34	0.17	87
Argentina	1.5	0.17	92
Finland	1.55	0.14	82.5
Poland	1.38	0.21	89.8
Switzerland	1.49	0.12	41.8
Brazil	1.31	0.15	73.6
Chile	1.56	0.09	70
India	1.47	0.18	80.5
Germany	1.33	0.06	34
Slovenia	1.51	0.19	57.8
Bulgaria	1.4	0.17	82.6
Romania	1.75	0.19	86.8
Turkey	1.66	0.15	99.8
Ukraine	1.66	0.18	50.4
Peru	1.67	0.12	81.3
Uruguay	1.46	0.13	47.1
Ghana	1.81	0.08	68.8
Moldova	1.64	0.26	98
Georgia	1.84	0.16	83.9
Thailand	1.67	0.19	94.6
Indonesia	1.21	0.1	86.1
Vietnam	1.51	0.23	80.8
Serbia	1.64	0.19	85
Egypt	1.71	0.13	90
Morocco	1.92	0.02	98.7
Jordan	1.73	0.1	92
Cyprus	1.42	0.11	78
Malaysia	1.75	0.09	60.4
Burkina Faso	1.74	0.14	50
Ethiopia	1.77	0.03	50.6
Mali	1.85	0.07	90
Rwanda	1.55	0.3	56.5
Zambia	1.74	0.13	63

Table 4. Indicators of socio economic development

Country	% enrolled in secondary education	GNP/ capita	% internet users	% not engaged in agriculture	SED Index	Gini index
Spain	96.66	30830	62.2	95.7	31085	32
United States	89.34	46790	75.1	99.4	47054	45
Canada	94.11	38710	74.89	98	38977	32.1
Japan	99.9	35190	71.5	96	35457	38.1
Mexico	63.78	14340	20.9	86.3	14511	48.2
South Africa	61.66	9790	8.5	91	9951	65
Australia	85.49	37250	71.3	96.4	37503	30.5
Norway	96.34	59250	84.3	97.1	59528	25
Sweden	98.4	37780	89.5	98.9	38067	23
Argentina	79.07	14000	27.3	95	14201	45.7
Finland	93.98	35940	83.4	95.5	36213	29.5
Poland	90.01	16710	48.5	82.6	16931	34.9
Switzerland	83.1	39210	75.3	96.1	39465	33.7
Brazil	75.67	10080	32.6	80	10268	56.7
Chile	55.37	13250	32.8	86.8	13425	54.9
Slovenia	94.7	27160	56.5	97.5	27409	28.4
Bulgaria	88.48	11370	36.6	92.5	11588	29.8
Romania	80.8	13380	27.6	70.3	13559	32
Turkey	41.99	13420	31.8	70.5	13564	41
Ukraine	79.47	7210	22.6	84.2	7396	31
Peru	68.85	7950	24.12	99.3	8142	52
Ghana	37.04	1320	4.1	44	1405	39.4
Moldova	75.84	3270	19.6	59.4	3245	33.2
Georgia	71.94	4920	22.1	44.4	5058	40.8
Indonesia	56.89	3600	12.4	57.9	3727	39.4
Vietnam	69.32	2700	23.5	49.2	2842	37
Egypt	79.08	5470	14.4	68	5631	34.4
Morocco	35.15	4190	32.9	55.4	4313	40.9
Jordan	81.11	5720	23.9	97.3	5922	39.7
Cyprus	93.01	24980	30.2	91.5	25195	29
Ethiopia	27.87	870	0.4	15	913	30

Table 5. Correlations between mean religiosity and value importance

IV	DV	r from previous study N=8,551	r from present study (country level) N=42	r from present study (individual level) N=59,184	Z score (country level)[b]	Z score (individual level) [c]
Religiosity	Tradition	0.45	0.51	0.24	-0.48	20.74**
Religiosity	Conformity	0.23	0.46	0.15	-1.62	7.18**
Religiosity	Self direction	-0.24	-0.28	-0.03	0.26	-18.56**
Religiosity	Stimulation	-0.26	-0.27	-0.004	0.07	-22.65**
Religiosity	Hedonism	-0.3	-0.05	-0.02	-1.6	-25.02**
Socio economic development	Value Consensus	0.34[a]	0.19	-	0.71	-

[a] n = 42

[b] column 3 compared with column 4

[c] column 3 compared to column 5

** p< 0.01

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