CONTENT, CONSTRUCT AND CONCURRENT VALIDITY OF GLOBE CULTURE VALUE SCALES: AN OUTCROPPING MEASURE APPROACH

Vipin Gupta*

Abstract

A major expectation in developing a cultural construct is one of insightful outcroppings – relationships and correlates that go beyond the meanings directly attributed to the construct. In this article, we use a set of outcroppings for the nine cultural dimensions of the GLOBE project, and examine their content, construct and concurrent validity.

Key words: Cross-culture studies, Construct Validation, Outcropping Measures, Project GLOBE

INTRODUCTION

Theories generate multiple predictive-type outcroppings, or hypotheses (Hunt, 1991). A theory may be tested only at available outcroppings, those points where theoretical predictions conjoin with accessible instrumentation and data (Lee, 2000). We may codify these into "outcropping measures" related to the operational definitions of the theoretical constructs. By examining the relationship with the predicted outcropping

measures, one could corroborate, qualify, and refine the content of the operational definition, so that it may be used more confidently and conscientiously in further research (American Psychological Association, 1974). Here "Validity refers to the degree to which evidence and theory support the interpretations of test scores entailed by proposed uses of tests" (American Psychological Association, 1999: 9).

A construct implies hypotheses of two types: convergent and discriminant (Rossi, Wright & Anderson, 1983). Convergent hypothesis is that specific operational definitions of the theoretical constructs and their outcropping measures

* Ros Jaffe Chair Professor of Strategy, Simmons College, 75 Swift Road, Framingham, MA 02446, USA
Gupta05@gmail.com   Tel: 1-508-872-0533

correlate together. Discriminant hypothesis says outcropping measures of one domain correlate with those from another only because the constructs themselves are correlated (Rossi, Wright & Anderson, 1983: 100-101).

In this paper, we rely on the operational definitions of the societal cultural value constructs taken from the Project GLOBE – Global Leadership and Organizational Behavior Effectiveness (House, Hanges, Javidan, Dorfman, & Gupta, 2004). Project GLOBE surveyed about 17,000 middle-level managers to develop nine societal cultural value dimensions for 62 societies (House et al, 2004). The nine GLOBE dimensions are: (1) Performance orientation, (2) Assertiveness, (3) Future orientation, (4) Humane orientation, (5) Institutional collectivism, (6) Family & group collectivism, (7) Gender egalitarianism, (8) Power Distance, and (9) Uncertainty Avoidance.

Next we examine content validity of GLOBE cultural constructs using outcropping measures, derived from the World Values Survey (Inglehart, Basanez & Moreno, 1998). The World Values Surveys include responses across societies covering a range of economic, political, and cultural issues, from approximately 350 questions of human values. The findings will help in more refined knowledge of the wider domain of meaning of the GLOBE constructs.

Content Validity: Reviewing Literature to Identify Outcropping Measures

We present the theoretical basis for hypothesized relationships between the GLOBE constructs and Outcropping Measures.

Performance Orientation Values and Capacity to Work

The performance orientation dimension reflects the extent to which a society encourages and rewards improved performance, goal-oriented behavior, and innovation. The work of McClelland (1985) suggests that the achievement motive reflects a desire to perform to a standard of excellence or to be successful in competitive situations. In performance oriented societies, people are careful to select tasks of moderate difficulty that are achievable using their current knowledge and competence in a given domain, and prefer tasks that provide prompt, exact feedback. Once they select a performance goal, they are willing to exert their maximum effort if they perceive a gap in realizing the goal (Atkinson, 1957).

Achievement needs are manifest in behavior through two primary means: the hope for success (approach) and the fear of failure (avoidance). While performance oriented people are willing to work hard to accomplish the tasks to which they have committed, they tend to avoid situations that they anticipate may demand arduous effort (Dweck & Leggett, 1988). Further, in the face of continued obstacles, performance oriented people tend to evoke a 'helplessness' response, characterized by avoidance of challenge and a deterioration of performance (Diener and Dweck, 1980). Performance orientation reflects an extrinsic interest and competence in one's work — the desire and the capacity to use one's work to achieve valued external ends.

In contrast to learning- or mastery-oriented people, performance oriented people are more focused on task performance and peer comparisons (Dweck, 1986). They focus their efforts on maintaining their performance in areas they had already proved effective (Dweck and Leggett, 1988). In performance oriented cultures, people see themselves as more capable of handling situations than others are; and they like the responsibility of making their own decisions (Burger, 1992). People seek to be in control, using their experience and skills to navigate towards their goal (Vaill, 1991). When faced with obstacles, they rely on a diligent use of analytical perspectives, such as brainstorming, weighing the options, and

plotting the course. On the whole, performance oriented cultures focus on drive for challenge and exhibiting initiative, instead of emphasizing ascribed value characteristics such as age, education, family, and profession (Parsons & Shils, 1951). Thus, we propose High Capacity to Work as an Outcropping measure for performance orientation:

Hypothesis 1: *The cultural value of performance orientation is associated with a high capacity to work.*

Assertiveness Orientation Values and Political Effectiveness

The dimension of Assertiveness Orientation is associated with a strong consciousness, expression, articulation, and communication of one's thoughts, feelings, beliefs, and rights; in public, political and social forums, and is related to physical and psychological aggressiveness and confrontation. Assertiveness reflects active encounters with the environment, involving the protection of people's rights and the pursuit of their goals, creating and/or taking advantage of opportunities, and exhibiting a willingness to change their situation (Betz & Hackett, 1983). Assertiveness oriented people stand up for the individual or collective rights, and demonstrate stronger interpersonal competence (Lange & Jakubowski, 1976). They tend to be adventurous, confident, and willing or even eager to accept changes in their environment (Miyahara, 2000).

The assertiveness orientation values are associated with an action-centered focus, founded on a confident decision-making behavior (Sarros & Woodman, 1993). Decision-making in assertive cultures encourages participation and commits the system to plans and strategies that result from the decision-making process. It relies on quick but sound decisions, which effectively adapt to a world of unpredictable and complex political and market forces. This type of decision-making takes

initiative, conviction, and determination: effective leaders in assertive societies must be comfortable in being assertive and "going for it" (Sarros & Woodman, 1993).

Assertive societies emphasize social skills and communication, direct personal influence and expression, and overall inter-personal effectiveness (Crawford, 1995). Here, people are willing to ask for what they want, deny what is not in their interest, and articulate positive and negative messages to others in an open and non-passive manner (Booream & Flowers, 1978). People constantly question the establishment and its traditional wisdom, as well as universal value absolutes (Rakos, 1991). In assertive cultures, the groups at the bottom of the socio-economic ladder organize or find other ways of voicing their concerns. The fair treatment for the disadvantaged becomes more likely, with representation of women and minority groups in the political system (Inderfurth, 1999).

In assertive cultures, emphasis is on the development of personal influencing skills, such as communication, dealing with conflict, persuading, and developing others. Astute people seek "a process of translating a personal vision" of what the society might be into an explicit strategy that can be put into practice (Bower & Weinberg, 1988: 50). As such, assertive cultures are better equipped to navigate the difficult and dynamic socio-political reality (Harvey & Butcher, 1998). Therefore, we advance High Political Effectiveness as an Outcropping measure for Assertiveness:

Hypothesis 2: *The cultural value of assertiveness is associated with greater political effectiveness.*

Future Orientation Values and Spiritual Orientation

The dimension of Future Orientation is reflected in behaviors such as planning, preparing and investing for the future. At a much deeper level, it is associated with the distinction between

materialistic vs. spiritual orientation (Cervantes & Ramirez, 1992). Future oriented cultures emphasize long-term considerations of education for self-development, and inner ability to persist in the face of obstacles for self-actualization. These cultures encourage planning, sacrifice and frugality, while lack of future orientation encourages consumption, spending, and materialistic display of income and wealth (Hofstede, 2001). Such societies foster search for the opportunities consistent with the desired future states (Seginer & Schlesinger, 1998).

Cerventes and Ramirez (1992) characterize spiritual orientation as a sense of wholeness, inner peace, interconnection and reverence for life. Spiritual orientation refers to the power of human spirit, a sense of purpose and being, a sense of future, a sense of higher power guiding and shaping our existence (Cross, 2001). There is a positive correlation between the strength of a society's religious values and the economic enhancement (Glahe & Vorhies, 1989), and between spirituality, and mental health (Westgate, 1996), physical health (Larson & Larson, 1991), and wellness (Maher & Hunt, 1993). In short-term oriented cultures, the material and the spiritual are separate; these are rarely integrated (Hofstede, 2001).

While spiritual orientation is related to the concept of religiosity (Weaver & Agle, 2002), it is not practice of religious doctrines. Spirituality represents personal beliefs and values, while religiosity refers to institutional beliefs and behaviors (Ingersoll, 1994). Religiosity is often expressed in collective religious participation, whereas spirituality may or may not be expressed publicly (Hinterkopf, 1994). Mitroff and Denton (2001) reported that the managers strongly endorse the importance of finding lasting meaning and purpose in life through a spiritual quest in business life. However, they rejected the relevance of religious doctrines for business life, citing them as dogmatic, intolerant,

and divisive. Spiritual orientation enables reframing of human experience to gain a sense of mastery over the debilitating events (Cross, 2001). Thus, we advance Spiritual Orientation as an Outcropping measure of Future Orientation:

Hypothesis 3: *The cultural value of future orientation is associated with a strong spiritual orientation.*

Humane Orientation Values and Public Morality

The Humane Orientation values construct is concerned with generosity, compassion, and empathy for others. The concept of humane orientation is rooted in the moral values arising from the situational and spontaneous demands of the human experience. Humane oriented societies focus on striving for a good life in this world (Solzhenitsyn, 1976), not on focus on salvation in the other world (Huxley, 1961).

To this end, humane oriented societies seek to control human the dispositions of greed, envy, hatred, and cheating. Societies valuing humane orientation show constant striving for the betterment of the human experience, relying upon the application of reason, the lessons of history, and personal experience to form an ethical/moral foundation and meaning in life (Kurtz, 2001). In societies that are concerned with the welfare of others, there is a limited emphasis on hedonic pleasure, personal comfort, and material success (Schwartz & Bilsky, 1987).

Several value characteristics of humane oriented societies have been identified (Kurtz, 2001). First, humane oriented societies emphasize individual and social pursuit of happiness. Secondly, humane societies recognize equality and dignity of each person. Third, humane societies emphasize moral freedom and the development of post-modern values of high intellect. These societies focus on morality and aesthetics, encouraging individuals to freely express themselves. Fourth, humane societies

instill tolerance for diversity of values and norms in individuals and groups, and facilitate diversity without forcing dogmatic similarity. Thus, these societies are founded on moral and civil virtues, such as honesty, uprightness, truth, sincerity, integrity, fairness and empathy. Therefore, we advance Sense of Public Morality as an Outcropping Measure for Humane Orientation.

Hypothesis 4: *The cultural value of humane orientation is associated with a sense of public morality.*

Institutional Collectivism Values and Social Respect

The Institutional Collectivism value construct reflects inducements and rewards for collective behavior and norms, rather than incentives and rewards for individual freedom and autonomy. Such collectivism is exhibited in preferences for closer work relations and higher involvement with one's social unit. Personal independence, referring to the ability to enact environments suitable to one's psychic conditions, has low priority (Ryff, 1989). Concomitantly, the notion of an autonomous, abstract individual, living free of society while living in that society is not illustrative of such cultures (Shweder & Bourne, 1984). In the institutionally collectivistic Japanese society, for instance, social connections are an essential part of the culture (Nakamura, 1964). In the Japanese language, the actual word for self, *jibun*, connotes that self is not an essence apart from the social domain (Rosenberger, 1992). Fieldwork in New Guinea showed that the refusal of institutionally collective societies to separate the individual from the social setting was of importance (Read, 1955). While autonomy is rejected, self-development for a place in the society is emphasized: "individuals are like the poles of a tipi - each has his own attitude and appearance but all look to the same center [heart] and support the same cover" (Strauss, 1982: 125).

People act with modesty, and demonstrate self-effacing and self-abnegating tendencies (Bond, 1986). The self is largely construed interdependently, whereby worth and acceptability are diffused throughout the institutional fabric of the society and are not focused on the individual alone (Johnson, 1985). People are encouraged to seek self-critical and self-improving orientations as means to pursue the cultural goals associated with trust and interdependence (Doi, 1973). In this manner, institutional collectivism emphasizes shared objectives, interchangeable interests, and respect based on socially legitimated and institutionalized criteria (Chatman, Polzer, Barsade & Neale, 1998).

In contrast, the lack of institutional collectivism tends to be associated with a preoccupation with self-esteem and independent personality (Bellah, Madsen, Sullivan, Swindler & Tipton, 1985). People remember their past performance much better than it actually was (Crary, 1966), claim more responsibility than their spouses give them credit for in household tasks (Ross & Sicoly, 1979) and judge positive personality attributes to be more appropriate in describing themselves than in describing others (Alicke, 1985). Therefore, we advance Priority on Social Respect as an Outcropping measure for Institutional Collectivism:

Hypothesis 5: *The cultural value of institutional collectivism is associated with a high priority on social respect.*

Family Collectivism Values and Pride in Family & Nation

The Family Collectivism value construct demonstrates how individuals relate to their family as an autonomous identity, or alternatively as conscious of responsibilities towards their family. It is associated with pride in affiliation and a general affective

commitment towards family, group, community, and nation (Triandis, Bontempto, Villareal, Asai, & Lucca, 1988). In strong family collective cultures, people are incorporated into resilient, unified in-groups, which protect them in exchange for unconditional loyalty throughout their lifetime (Hofstede, 2001). There is an emphasis on collaboration, cohesiveness and harmony, as well as an effort by people to apply skills for the benefit of their family or in-group. Put differently, family collectivism represents a strong sense of 'family integrity' (Triandis et al., 1988).

The role of rationality is often diminished and enacting divisive goals and behaviors is discouraged, as these actions may destabilize harmony (Schwartz, 1994). Responsibility and identity begins with the immediate group, and then gradually extends externally. The family serves three basic needs to affiliate: need for affiliation, involvement, inclusion and belongingness; need for intimacy, affection, and a sense of identity; and need for feeling social security, support, control, and power (Schutz, 1958). Need for affiliation reflects the desire to be part of, and accepted by, a group (McClelland, 1985). The desire to experience warm, positive, and communicative relationships with others manifests a need for intimacy (Schutz, 1958). Organizing and maintaining the group processes to address the need to feel socially secure enact support, control and power (Schutz, 1958). Taken together, the three needs generate 'affective commitment' and a general identification, defined as 'pride in affiliation' with the family and group (O'Reilly & Chatman, 1986). Affective commitment represents emotional attachment and personal involvement of people in the larger group (Allen & Meyer, 1990). Therefore, we advance Pride in Family and Nation as an Outcropping measure for Family Collectivism:

Hypothesis 6: *The cultural value of Family Collectivism is associated with a sense of pride in family and nation.*

Gender Egalitarianism Values and Gender Parity

The Gender Egalitarianism value construct reflects the absence of gender-dependent division of roles, expectations, evaluations, and power in a society. In gender egalitarianism societies, there are fewer gender stereotypes that characterize women as passive, weak and deferential and primarily domestically oriented. Gender egalitarianism affects role differences between men and women, as well as the common values of men and women. In less gender egalitarian societies, orthodox roles for women, as well as an orthodox worldview of both men and women are common. In greater gender egalitarian societies, gender discrimination is mitigated, allowing both men and women to effectively participate in the labor force and contribute to their families on an equal basis. Men actively participate in child rearing and family maintenance activities. This enables women to engage fully in both the public and the community domains (Coltrane, 1988).

In most societies of the world where women are not sufficiently reward for their labor, women often work part-time in "feminine" jobs for the purposes of supplementing the incomes of men. Feminine jobs largely involve family maintenance activities, nurturance, and relationships with others in a service capacity. In less gender egalitarian societies, economic development further reinforces both men and women within their traditional gender domains, while keeping the roles of men and women apart. In more gender egalitarianism societies, there is increased male-female societal equality with a higher share of women engaged in earned income rather than domestic activities. More than economic modernization, gender egalitarianism reflects an inherent understanding between men and women, enhancing their ability to work together in social and economic spheres. Therefore, we advance Gender Parity as Outcropping measures for Gender Egalitarianism:

Hypothesis 7: *The cultural value of gender egalitarianism is associated with a stronger sense of gender parity.*

Power Distance Values and Monopolistic Orientation

The Power Distance value construct reflects the extent to which members of a cultural group expect and agree that power should be shared unequally. In high power distance societies, there is often a strong endorsement for leaders and their power. Leaders in high power distance societies tend to practice paternalistic benevolence with those who support them, but levy autocratic suppression with those who try to revolt.

The micro roots of the value of power distance lay in the individual need for power. The people with high need for power seek to have an impact on other people – convincing others of their perspective or empowering others around them, and finding ways to connect with and influence powerful people and to beat competitors (McClelland, 1985). Since high need for power is associated with social influence behaviors, it is an important element of leadership effectiveness (House, 1977). People with a high need for power tend to take an activist role and therefore attempt to shape important decisions toward the accomplishment of valid and accepted organizational and social goals (McClelland, 1985). People with high need for power want to organize the efforts of others to further the goals of the society. They tend to "influence or direct other people; express opinions forcefully; enjoy the role of leader and may assume it spontaneously" (Steers & Black, 1994: 148). However, unless constrained, need for power also motivates exercise of power in an aggressive manner for self-aggrandizing purposes, to the detriment of the society (McCelland, 1965).

The macro links of the value of power distance can be identified in the trade-off between social equity and economic growth (Kuznets, 1955). The positive relationship between economic growth and inequity arises from competing claims on and uses of property, such as between management and labor (Campbell, 1996). In societies where power distance is valued, the workforce tends to be obedient and loyal to the bosses, and is less prone to strikes and industrial strife (Hofstede, 2001). Consequently, the society can give priority to economic growth, and allow monopolistic rights on private property and intellectual properties (Morishima, 1984). The economic concept of monopolistic orientation captures this belief in differentiated advantage, endorsing differentials in the performance of various groups based on their accumulation of the private and intellectual properties. Therefore, we advance Monopolistic orientation as an Outcropping measure for Power Distance:

Hypothesis 8: *The cultural value of power distance is associated with monopolistic orientation.*

Uncertainty Avoidance Values and Socio-Technical Conservatism

The Uncertainty Avoidance value construct focuses on the extent to which people seek orderliness, consistency, structure, formalized procedures, and laws to deal with naturally occurring uncertain as well as important events in their daily lives. It is linked to the use of procedures, such as standardized decision rules, which can minimize the need to predict uncertain events in the future (Cyert & March, 1963). Uncertainty avoidance is also associated with the social reliance on experts, technology, material possessions, social organization, legislation, and governance. More liquidity in form of money can, for instance, help in managing uncertainty by acting as a reserve. Similarly, material accumulation and technological advancements help in dealing with the uncertain changes in the environment.

The concept of uncertainty avoidance is rooted in the emotional and psychological 'need for security' (Hofstede, 2001). People socialized to have a high need for security are likely to resist change because it threatens their feelings of safety. The need for security is related more to the social forms of knowledge, as opposed to the personal forms of knowledge. Reliance on social knowledge helps to pool the effort and competence. Concomitantly, uncertainty avoidance is also related to a preference for social action and social democracy. In higher uncertainty avoidance societies, greater priority is given to the training of experts rather than lay people for particular tasks (Hofstede, 2001). As such, members of a society both acknowledge and favor a level of dependence on government. (Hofstede, 2001). Uncertainty avoidance is also associated with "tight" societies, where social solidarity and stability is emphasized (Hofstede, 2001). Thus, uncertainty avoidance is related to the values of personal conformity, resistance to social change, interest in national rather than international affairs, and a call for national leadership (Eckhardt, 1971). On the other hand, the "loose" societies tend to be less uncertainty avoiding – here the values of group organization, formality, and durability are undeveloped, and deviant behavior is tolerated (Pelto, 1968).

While low uncertainty avoidance societies are more likely to take decisions for making exploratory investments in new product and technology development, exploitation of proven technologies tends to be greater under high uncertainty avoidance (Nakata & Sivakumar, 1996). Thus, for instance, uncertainty avoidance customs foster mass availability of information technologies, as measured by information processing technologies such as fax machines, internet connections, computers, telephones, and televisions, for reducing uncertainty (Gupta, Sully & House, 2003). People in high uncertainty avoidance cultures have a heightened sense of concern with the need for effective communication and coordination. Therefore, they are more willing to invest in reliable technological support systems, to help them effectively access social information and support. Technological support systems incorporate the collective social knowledge about the solutions to their societal problems. In uncertainty avoiding societies, the positive outcomes tend to be less attributed to people's abilities, and more to technology and investments into security and social organization (Yan & Gaier, 1994). Therefore, we advance Socio-technical Conservatism as an Outcropping measure for Uncertainty Avoidance:

Hypothesis 9: *The cultural value of uncertainty avoidance is associated with socio-technical conservatism.*

Data and Operational Scales

We relied on the GLOBE data for measuring the cultural value constructs (House et al, 2004), and on the World Values Survey database for measuring the Outcropping measures. Below we describe GLOBE and World Values Survey methodology and data.

GLOBE vs. World Values Survey Methodology

The World Values Surveys methodology for measuring values differs substantively from that of GLOBE. First, the sampling universe of the World Values Surveys consisted of all adult citizens, ages 18 and older. Representative samples were used in most cases: first a random selection of locations was made in each society, and then individuals were sampled in each location. GLOBE has a more focused sample - only middle level managers are included as respondents, and only managers from three industries (food processing, financial services, and telecom) participated in the survey.

Secondly, the data collection method varied from that of Project GLOBE. The World Values

Surveys were carried out through face-to-face interviews. GLOBE surveys were given to the respondents to complete. GLOBE data were collected from 1995 to 1997. The World Values Survey data were collected over four main cycles: in the early 1980s, in the early 1990s, in the late 1990s, and in the early 2000s. We used the combined data from the two 1990s cycles.

Unlike the survey instrument used for data collection in Project GLOBE, the World Values Survey instrument contains items in a variety of non-standardized formats. Some questions have yes-no answers, while others questions have a 3-point, 5-point, 7-point, or 10-point scale. In some questions, the respondent had to choose a first and second preference, out of a group of four items. We assigned a score of 2 to the first preference, a score of 1 to the second preference, and a score of 0 to the remaining items, for each respondent. We standardized all the items to a mean of 0 and a standard deviation of 1, so that an equal weight is given to all items. The GLOBE instrument contained items in a standard 7-point format.

The World Values Surveys were intended to test the inter-generation differences in the social, political and economic values, arising as a result of the processes of post-materialism and post-modernization. GLOBE surveys were designed specifically for developing and measuring societal cultural values, and other related cultural and leadership constructs.

Given the substantive differences of these sources, the World Values Surveys data could be use as a source to establish Outcropping Measures of GLOBE's societal value scales.

Operational measures

The World Value Surveys are intended to measure culture as a system of attitudes, "beliefs, values, knowledge, and skills that have been internalized by the people of a given society." (Inglehart, 1997: 15) Guided by a

working sketch of the above hypotheses, the items in the World Values Surveys were Q-sorted into ten categories: one each for the nine Outcropping Measures, and a not-applicable category.

We excluded the items whose meaning and intent could not be unambiguously resolved. For instance, the World Values Surveys included an item if "seeing people have more say in how things are done at their jobs and in their communities" is an important goal for the respondents. This item could be coded as political effectiveness (a correlate of Assertiveness) as well as social-technical governance (a correlate of Uncertainty Avoidance), and was therefore excluded.

We focused on the underlying intent, as opposed to looking at the semantics of the questions alone. For instance, the item "The political system as it is today is going on very well" was picked as a measure of Assertiveness values reflecting a well-functioning political system. However the items such as a "high importance of politics in people's life" and a "high interest of people in politics" were not, because the underlying value reflected in these is low Institutional Collectivism with people seeking to develop personal evaluations of the system, without taking the system for granted. Similarly, the items that related to the views of respondents on the effectiveness of a democratic system were excluded, because such views did not necessarily have any direct relevance for the political effectiveness in the society.

The logic underlying the hypothesis was also kept in focus while Q-sorting the World Values Survey items into the hypothesized constructs. For instance, a distinction was made between the institutionalized behaviors such as maintaining affiliation with the religious institutions and church (which are not relevant for future orientation) versus deriving an inner strength through the practice of religion and

spiritual beliefs (which is relevant for future orientation). While the latter were included as indicators of Spiritual Orientation, the former were excluded. Other items such as the importance of "A safe job with no risk of closing down or unemployment" while looking for a job were identified as positively related manifestations of the value of future orientation, but excluded because they did not reflect the validation measure hypothesized to be related with the construct of Future Orientation values.

The author and a Post-doc independently selected the items for each outcropping measure. The inter-rater agreement for item selection ranged from 0.75 to 1.00, with an average inter-rater agreement of 0.82. The final selection included the items that were common to both selections. Table 1 provides the items for the ten Outcropping Measure scales. The Cronbach alpha reliability coefficient of all the scales exceeds the standard of 0.70.

Table 1: Operational Scales for the Outcropping Measures

1. Capacity to Work (alpha=0.76)

V66. Feel much freedom of choice and control over the way life turns out	0.81
V124. Our present society must be valiantly defended against all subversive forces	0.82
V172. Disagree: In this country, people in need are poor because of laziness and lack of will power	-0.84

2. Political Effectiveness (alpha = 0.90)

V152. The political system as it is today is going on very well	0.90
V165. Dissatisfied with the way the people now in national office are handling the country's affairs	-0.94
V166. Generally speaking, this country is run for the benefit of all the people, as opposed to a few big interests looking out for themselves	0.90

3. Spiritual Orientation (alpha=0.95)

V9. Low importance of religion in life	-0.93
V22. Religious faith is not an especially important quality for children to learn at home	-0.88
V180. Not brought up religiously at home	-0.78
V182. Not religious	-0.90
V183. Don't believe in god	-0.94
V184. Don't believe in Life after death	-0.85
V191. Don't find comfort and strength from religion	-0.85

4. Public Morality (alpha = 0.81)

V192. Claiming government benefits to which one is not entitled is generally justifiable	-0.85
V193. Avoiding a fare on public transport is generally justifiable	-0.90
V194. Cheating on taxes if one has a chance is generally justifiable	-0.87

5. Social Respect (alpha = 1.00)

V78. In general, it is not important to have a job that is respected by people	-1.00

6. Pride in Family and Nation (alpha=0.76)

V4. Family is not very important in life	-0.81
V13. Parents have a life of their own and should not be asked to sacrifice their own well-being for the sake of their children	-0.79
V205. Not at all proud of my nationality	-0.88

7. Gender Parity (alpha=0.92)

V61. Disagree: When jobs are scarce, men should have more rights to a job than women	0.92
V101. Strongly Disagree: on the whole, men make better political leaders than women do	0.95
V103. A university education is more important for a boy than for a girl	0.92

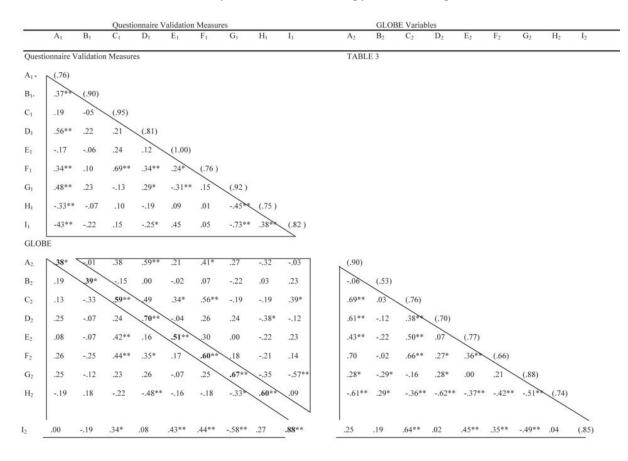8. Monopolistic Orientation (alpha =0.75)

V104105a. The goal of a high level of economic growth should be given top priority over the next ten years in this nation	0.81
V108109b. Progress toward a less impersonal and more humane society should be given top priority in this nation	-0.86
V125. We need larger income differences as incentives for individual effort	0.63
V128. Competition is harmful and brings out the worst in people, as opposed to stimulating people to work hard and develop new ideas	-0.72

9. Socio-technical Conservatism (alpha =0.82)

V63. Even when jobs are scarce, employers should not give more priority to home nationals over immigrants	-0.67
V73/74-1. "A good income so that there are no worries about money" is an important factor for people looking for job	0.72
V113. Against a change in the way of life to more emphasis on the development of technology	-0.83
V126. Government ownership of business and industry should be increased, as opposed to private ownership	0.70
V127. People should take more responsibility of providing for themselves, rather than having the government provide for everyone	-0.73
V131. One should not be cautious about making major changes, since you never achieve much in life unless you act boldly	-0.72

Construct Validity: Multidimension-Multisource matrix

The test of construct validity can be done using the multidimension-multisource matrix (Campbell & Fiske, 1959). The nine cultural constructs represent multidimension. The two sources of measurement: GLOBE variables and Outcropping Measures represent multisource. Table 2 provides the multidimension-multisource matrix. The correlations between constructs measured by a single method are termed as the heterodimension-monosource triangles. There are two of them: first for the Outcropping Measures, and the second for the GLOBE variables. In addition, a heterosource block comprises of validity diagonal (bold values in the table), and two heterodimension-heterosource triangles.

	A$_1$	B$_1$	C$_1$	D$_1$	E$_1$	F$_1$	G$_1$	H$_1$	I$_1$	A$_2$	B$_2$	C$_2$	D$_2$	E$_2$	F$_2$	G$_2$	H$_2$	I$_2$
Questionnaire Validation Measures										**TABLE 3**								
A$_1$	(.76)																	
B$_1$	.37**	(.90)																
C$_1$	.19	-05	(.95)															
D$_1$	.56**	.22	.21	(.81)														
E$_1$	-.17	-.06	.24	.12	(1.00)													
F$_1$	.34**	.10	.69**	.34**	.24*	(.76)												
G$_1$	.48**	.23	-.13	.29*	-.31**	.15	(.92)											
H$_1$	-.33**	-.07	.10	-.19	.09	.01	-.45**	(.75)										
I$_1$	-43**	-.22	.15	-.25*	.45	.05	-.73**	.38**	(.82)									
GLOBE																		
A$_2$	.38*	-.01	.38	.59**	.21	.41*	.27	-.32	-.03	(.90)								
B$_2$	.19	.39*	-.15	.00	-.02	.07	-.22	.03	.23	-.06	(.53)							
C$_2$	.13	-.33	.59**	.49	.34*	.56**	-.19	-.19	.39*	.69**	.03	(.76)						
D$_2$	.25	-.07	.24	.70**	-.04	.26	.24	-.38*	-.12	.61**	-.12	.38**	(.70)					
E$_2$	.08	-.07	.42**	.16	.51**	.30	.00	-.22	.23	.43**	-.22	.50**	.07	(.77)				
F$_2$	.26	-.25	.44**	.35*	.17	.60**	.18	-.21	.14	.70	-.02	.66**	.27*	.36**	(.66)			
G$_2$	.25	-.12	.23	.26	-.07	.25	.67**	-.35	-.57**	.28*	-.29*	-.16	.28*	.00	.21	(.88)		
H$_2$	-.19	.18	-.22	-.48**	-.16	-.18	-.33	.60**	.09	-.61**	.29*	-.36**	-.62**	-.37**	-.42**	-.51**	(.74)	
I$_2$	.00	-.19	.34*	.08	.43**	.44**	-.58**	.27	.88**	.25	.19	.64**	.02	.45**	.35**	-.49**	.04	(.85)

Note. Letters A, B, C, D, E, F, G, H, I refer to the dimensions of culture, subscripts 1, 2, to refer to the 2 methods used in this study. Method 1 refers to the Outcropping Measures and method 2 refers to the GLOBE items. Validity coefficients are the diagonal set of boldface numbers; reliability coefficients are the numbers in parentheses along principal diagonal. For criteria variable, N=73; For GLOBE, N=62; For multidimension-multimethod, N=39.

*	A = Performance Orientation
	B = Assertiveness Orientation
	C = Future Orientation
	D = Humane Orientation
	E = Societal Collectivism
	F = Family Collectivism
	G = Gender Egalitarianism
	H = Power Distance
	I = Uncertainty Avoidance

Convergent validity exists when the validity diagonals are high and statistically significant (Campbell & Fiske, 1959). The coefficients in the validity diagonal represent correlation between each GLOBE variable and the corresponding Outcropping Measure. The correlation between hypothesized pairs ranges from 0.38 to 0.88, and is statistically significant at p<0.05 for each of the nine validity diagonal coefficients.

Discriminant validity exists when (1) the coefficients in the heterodimension-heterosource triangles are not as high as those in the validity diagonal. (2) the coefficients in the heterodimension-monosource triangles are also not very high, and (3) the reliability of the measures exceeds the coefficients in the

heterodimension-monosource triangles. (Campbell & Fiske, 1959).

Using heterodimensio-heterosource triangles, one may compute the average absolute correlation of each Outcropping Measure (W) with the eight GLOBE variables (G), excluding the one with which it is hypothesized as related. This average is termed as discriminant coefficient (W,G). Similarly, one can compute the average absolute correlation of each GLOBE variable (G) with the eight Outcropping Measures (W), excluding the one with which it is hypothesized as related. This average is termed as discriminant coefficient (G,W). Table 3 shows that for each of the nine variables, both types of discriminant coefficients are smaller than the validity diagonal coefficients. The overall average discriminant coefficient is 0.24, which is significantly less than

Table 3: Multidimension-Multimethod Matrix Summary for Societal Value Measures

	1 Convergent coefficients (G,W)	2a Discriminant coefficients (G,W)	2b Discriminant coefficients (W,G)	3 Discriminant coefficients (W)	4 Discriminant coefficients (G)	5 Reliability coefficients (W)	6 Reliability coefficients (G)
Performance Orientation	0.38	0.28	0.17	0.36	0.45	0.76	0.90
Assertiveness	0.39	0.11	0.15	0.17	0.15	0.90	0.53
Future Orientation	0.59	0.33	0.30	0.22	0.43	0.95	0.76
Humane Orientation	0.70	0.20	0.30	0.27	0.30	0.81	0.70
Institutional collectivism	0.51	0.19	0.18	0.21	0.30	1.00	0.77
Family & group collectivism	0.60	0.25	0.31	0.24	0.37	0.76	0.66
Gender egalitarianism	0.67	0.26	0.25	0.35	0.28	0.92	0.88
Power Distance	0.60	0.23	0.25	0.20	0.40	0.75	0.74
Uncertainty Avoidance	0.88	0.29	0.23	0.33	0.30	0.82	0.85
Average	**0.59**	**0.24**	**0.24**	**0.26**	**0.33**	**0.85**	**0.75**

Note: Summary Conditions for Construct Validity: 1>2(a), 2(b), 3, & 4; 5>3; 6>4

the average convergent coefficient (i.e. diagonal coefficient) of 0.59.

Similarly, using heterodimension-monosource triangles, one can compute a discriminant coefficient (G) as the average correlation of each GLOBE measure with the other eight GLOBE measures; and a discriminant coefficient (W) as the average correlation of each Outcropping Measure with the other eight Outcropping Measures. The overall average discriminant coefficient (G) is 0.33, and overall average criteria discriminant coefficient (W) is 0.26, both of which are also significantly less than the average convergent coefficient.

Finally, the reliability of both GLOBE measures and Outcropping Measures exceeds the discriminant coefficient computed from heterodimension-monosource triangles.

Thus, we may conclude that the GLOBE cultural value constructs have convergent as well as discriminant validity.

Concurrent Validity: Relationship with Hofstede's Measure

Another application of the Outcropping Measures is to gain a deeper insight into the evidence on the concurrent validity of the focal constructs. Hofstede's (2001) cultural value scales are widely used by social scientists to operationalize cultural constructs that overlap with the GLOBE cultural constructs. Table 4 reports the findings on the concurrent validity of the GLOBE cultural value constructs and Outcropping Measures, in reference to relevant Hofstede's (1980; 2001) scales.

Table 4: Concurrent Validity between GLOBE Scales and Hofstede's Scales

Hofstede Scales	**GLOBE Scales**	**Outcropping Measures**
	Power Distance Values	Monopolistic Orientation
Power Distance	-0.03	.38**
	Uncertainty Avoidance Values	Socio-technical Conservatism
Uncertainty Avoidance	0.32**	0.42**
	Institutional Collectivism Values	Social Respect
Individualism	-0.55**	-0.58**
	Family Collectivism Values	Pride in family and nation
Individualism	-0.20	-0.20
	Gender Egalitarianism Values	Gender Parity
Masculinity	0.11	-0.44**
	Assertiveness Values	Political Effectiveness
Masculinity	-0.12	-0.09

NOTE: ** = p < .01; * = p<0.05; N=48

GLOBE Power Distance Values are not correlated with Hofstede's Power Distance Index; but Monopolistic Orientation (outcropping measure for the Power Distance values) is significantly and positively correlated.

GLOBE Uncertainty Avoidance Values are positively and significantly correlated with Hofstede's Uncertainty Avoidance Index; and so is Socio-technical Conservatism (outcropping measure for the Uncertainty Avoidance values).

GLOBE Institutional Collectivism Values are negatively and significantly related with Hofstede's Individualism Index, and so is Social Respect (outcropping measure for the Institutional collectivism values). GLOBE Family Collectivism Values are also negatively but not significantly correlated with Hofstede's Individualism Index; and so is Pride in Family and Nation (outcropping measure for Family Collectivism values).

Finally, GLOBE Gender Egalitarianism Values are not correlated with Hofstede's Masculinity Index; but Gender Parity (outcropping measure for Gender Egalitarianism values) has a significant expected negative correlation. However, GLOBE Assertiveness Values are not correlated with Hofstede's Masculinity Index, and so is Political Effectiveness (outcropping measure for Assertiveness values).

On the whole, Outcropping Measures show stronger and predictable correlation with all four of Hofstede's scales. GLOBE scales also have predictable correlation with two of the Hofstede's scales: Uncertainty Avoidance and Individualism Index. Both Outcropping measures and GLOBE scales concur in showing that Hofstede's Individualism Index does not capture the concept of family oriented values, and that Hofstede's Masculinity Index does not capture the concept of assertiveness values.

Conclusions

In this article, we reviewed literature to develop hypotheses to clarify the domain of meaning underlying the nine GLOBE societal value constructs, and to predict their relationship with the Outcropping measures. We used the World Values Surveys data to develop and test these hypotheses.

As a limitation, we note that these measures capture only a part of the overall domain of meaning intended by the respective value constructs. For instance, the value of uncertainty avoidance would be related to a range of indicators associated with the need for security, as well as other indicators that might help resolve the uncertainty about unknown, or help insure the costs of unexpected change. Socio-technical Conservatism is one way in which uncertainty can be managed collectively by a society. There may exist other approaches for managing uncertainty.

In future, data from other independent cross-cultural studies may also be used for further validation, and for refining the domain of meaning of the GLOBE societal value constructs.

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