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**Leadership, Charisma, Holistic & Analytic Cognition and Potential Fallacies of Dimension Theories**

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**INTRODUCTION**

This study evolved from an initial aim of comparing the results from the Global Preferred Leader Behaviour and Values Across Cultures project with those of the Global Leadership and Organisational Behaviour Development (GLOBE) project, searching for corresponding charisma dimensions. As analyses progressed the direction changed due to emerging evidence of influences of Holistic vs. Analytic thinking and cognition on perception of leader behaviour dimensions in the societies studied.

In 1997 the Global Preferred Leader Behaviour and Values Across Cultures project was initiated, first in China, now with large samples of data from China (several regions), South Korea, Japan, Turkey, Uganda, Ghana, Kenya, Zambia, the Republic of South Africa, Mexico, Chile, and New Zealand, and smaller, exploratory samples from the USA, England, Germany, and Romania, and work underway in other countries[[1]](#footnote-1). The project contributes to the empirical field survey research study of societal cultural effects on explicit preferred leader behaviour of businesspeople, and in some cases university students. The findings indicate that societal cultural differences moderate variability in preferences for leader behaviour associated with leadership effectiveness. There are many researchers in the project, some noted in the acknowledgement. One of the major thrusts is to identify and verify the existence of general or unique leader behaviour dimensions across and within national cultures. We have been focussing to date on countries underrepresented in leadership research, and will be expanding the work starting in 2012.

 In my initial and continuing research literature reviews for the project I obtained a copy of the Global Leadership and Organisational Behaviour Effectiveness (GLOBE) project surveys for defining culture and explicit leadership dimensions. House et al. (2004) and Stogdill (1963, 1974) report the following definitions of dimensions.

*INSERT TABLE 1 ABOUT HERE*

**COMPARING CHARISMA ITEMS**

The studies in our project employ the Ideal Leader assessment version of the LBDQXII, where participants indicate how frequently the Ideal Leader should engage in behaviours specified by the survey items. In Table 2 we see corresponding items in the GLOBE project leadership and LBDQXII preferred leader behaviour dimensions. As my first investigation I employed confirmatory factor analysis of LBDQXII data, specifying three factors to attempt to identify dimensions similar to the GLOBE project dimensions.

Our analyses reported here represent a multi-dimensional set of leadership traits relating to charisma (House et al., 2004). Though the instrument selected for our project, the Leader Behavior Description Questionnaire XII (Stogdill, 1963, 1974; Littrell, 2002) does not include a specific dimension originally identified as “charisma”, as it was not yet the flavour of the decade in the 1960’s, a 1990 study by Ehrlich, Meindl & Viellieu proposed that several of the dimensions and items defined charismatic behaviours. Our investigation of the GLOBE project surveys produced the comparison depicted in Table 2.

*INSERT TABLE 2 ABOUT HERE*

Many of the items have near identical meaning. We are not convinced of the item-to-scale reliability of GLOBE’s *Charisma 3: Self-Sacrifice* across cultures, and encourage further study of this dimension.

**CULTURAL DIFFERENCES IN THE STRUCTURE AND NUMBER OF LEADER BEHAVIOUR DIMENSIONS**

In the research processes of the Preferred Leader Behaviour and Values Across Cultures project, as we collected data from an increasingly broad selection of countries, one objective has been to test the invariance of the twelve-factor model of the LBDQXII across samples. We have found through Cronbach-alpha-based reliability analysis and item-to-scale correlational analyses, along with goodness-of-fit tests using Structural Equations Modelling (SEM), that a set of twelve identifiable factors with at least 2 or 3 items consistently corresponding to the LBDQXII factors to appear in analyses from all regions other than Sub-Saharan Africa countries north of the Republic of South Africa and Namibia. That region requires further investigation. There is some problematic item phraseology, and the reverse-scored items are generally unreliable within and across cultures. We have embarked on a project to build a more valid and reliable cross-cultural version of the LBDQ, eliminating reversed items and ambiguous and idiomatic phraseology.

After investigating the fit of the data to the model, we run exploratory factor analyses using Varimax, Direct Oblique, and Promax oblique rotations on the samples in order to search for the existence of alternative leader behaviour dimensional models amongst our cross-national and intra-national samples. In these exploratory analyses we observe that some samples, primarily in Varimax and Promax rotations, produce a first factor consisting of a general set of items with high factor loadings for multiple items from many, most, or all of the hypothesised twelve LBDQXII factors. In our literature search investigating explanations for this outcome we found Ensari & Murphy’s (2003) study comparing perceptions of charismatic leadership in the USA and Turkey, with implications that the perceptions appear to be strongly influenced by Holistic vs. Analytic thinking and cognitive processes. We investigated further.

**Holistic Theory**

Reading and reflecting on Stiggins (1987) discussion of design and development of performance assessments we can gain insight into a nearly unidimensional response to the idea of charisma observed in many of our samples. When an individual takes an Analytic thinking approach to evaluating a dimension of behaviour, various cognitive and emotional criteria are applied to various behaviours and, for example, the individual is able to indicate that a leader is able to persuade others to accept or adopt the leader’s points of view through logic and argument. However, the leader may or may not be inspirational. Another leader might convince through inspirational speaking skills, but be somewhat deficient in logic. One or the other might be able to accurately set visionary goals and forecast future events. We encounter societal cultures that appear to approach evaluation in this manner. Our subjects might find several distinct leadership traits related to charisma or a single trait with many items. Some criteria may be given more weight than others in this process, depending on the contribution of each to the quality of the ideal leader’s performance in the evaluator’s opinion.

In analytic scoring, each criterion is evaluated individually and is assigned a score after the survey participant consciously or unconsciously parses the set of items into sub-sets of dimensions. Other societal cultures might approach the evaluation of charisma in a holistic manner. All criteria are considered simultaneously when assessing the charisma of a leader. Holistic theory addresses the idea that the parts of any whole cannot exist and cannot be understood other than by their relation to the whole. Deresky & Christopher (2008, p. 168) discuss this issue in the context of business negotiations. The tendency amongst Chinese negotiators is to progress through the negotiation process and decide upon the final deal at the end. However, negotiators from the U.S. tend to progress through the resolving of contentious points of a deal in a sequential fashion during the negotiation. Problems can arise at the end, when the Chinese side, viewing the process as a unified whole, knowable only after all the parts and their relationships are evident, begins to renegotiate issues at the end that the U.S. side believes were settled earlier.

In their study of charismatic leadership perceptions in Turkey and the USA, Ensari & Murphy (2003) found that individualistic participants processed the information in making judgements concerning leadership that were unaffected by the context in which it appeared, an Analytic, context-independent mode of thinking, and exhibited a tendency to focus more on individual-based explanations, whereas collectivistic participants processed the information while attending to its relations to the social context, a Holistic context-bound mode of thinking. Conger & Kanungo (1987) found attributions of charisma are influenced by leader or organizational performance (also Shamir, 1992), and by specific behaviours that the leader exhibits. Charisma researchers acknowledge the importance of perceptual processes involved in making attributions of charisma, but we have been unable to locate investigations of the processes by which attributions are affected. Calling for yet another set of studies.

In further investigation, we find recent studies of Holistic vs. Analytic styles of thought by Nisbett and colleagues (Nisbett, Peng, Choi & Norenzayan, 2001; Nisbett, 2003; Nisbett and Masuda, 2003; Miyamoto, Nisbett & Masuda, 2006) initially proposing that East Asians are inclined to reason and perceive in a holistic fashion, that is to say, to emphasize relationships and similarities among objects and events in the broad perceptual and conceptual field. “Westerners” (we acknowledge the gross ambiguity of this widely-used term) instead tend to reason more analytically, that is, to focus on a central object (or person) and its attributes, and to reason about it using categories and rules. In a study ofJapanese and Americans (U.S. residents), Miyamoto, Nisbett & Masuda (2006) found intra-country variations in the USA related to size of city of residence, with residents of New York City attending more to contextual cues than those residing in small cities. Miyamoto et al. (2006) suggest a dynamic and synergistic process through which cognitive attention can be shaped and sustained by the perceptual environment, and that such perceptual environments have been historically constructed and maintained by people repeatedly exposed to a culturally specific perceptual environment, indicating the possible existence of processes of mutual, interactive constitution of cognitive processes and sociocultural environments. Other work by Nisbett and colleagues speculate that the origin of these differences is traceable to markedly different social systems, and that it seems reasonable to assume that people attribute causality to the events they attend to. If Westerners attend to the object, we would expect them to attribute causality to the object. If East Asians attend to the field and the object's relations with the field, it seems likely that they would be more inclined to attribute causality to context and situations. Nisbett & Miyamoto (2005) also present evidence that differences in social structure and social practice underlie differences in perception. If one lives in a complex, interdependent social world with many role prescriptions, one needs to attend to relationships and to the context. On the other hand, if one lives in relatively independent, individualistic social circumstances, one might attend primarily to objects, and one's goals with respect to those objects, without being overly constrained by other people's demands and needs.

Questioning the idea that tendencies for holistic thinking would be specific to “Asian” cultures (see, for example, Littrell, forthcoming 2012 concerning problems with defining cultural clusters). Project members reviewed work on Holistic vs. Analytical thinking and culture from Witkin (1950), Chiu (1972), Witkin, Dyk, Faterson, Goodenough & Karp (1974) and Witkin & Berry (1975). Witkin and colleagues, and a review by Varnum, Grossmann, Kitayama & Nisbett discuss ecological influences on thinking styles, including the effects of societal culture, irrespective of geographic location. Nesbitt & Miyamoto (2005) and Knight & Nesbitt (2007) report research indicating eastern Europeans showed more context-dependent attentional patterns than did western Europeans and that southern Italians and working-class Italians showed more context-dependent reasoning styles than did northern Italians and all middle-class Italians. Social structures and relationships have historically been more close-knit, role-prescribed and interdependent in eastern Europe than in western Europe, in southern Italy than in northern Italy, and amongst the working-class than the middle-class. These findings further support that societal differences in perception might well be rooted in social structure and social practice differences in other societies outside Asia.

Witkin, Dyk, Faterson, Goodenough & Karp (1974) and Varnum, Grossmann, Katunar, Nisbett & Kitayama (2008) report findings, at different levels of analysis, supporting an argument based upon history of societies that Holistic or Analytic cognition originated in Collectivist and Individualistic orientations. Additionally, Knight & Nisbett (2007) in Italy, Norenzayan & Nisbett (2000) in the USA, and Uskul, Kitayama & Nisbett (2008) in Turkey find that the method of earning a livelihood fosters Holistic vs. Analytic cognition, that is, a tendency to attend to the broad perceptual and cognitive field, rather than to a focal object and its properties, and a tendency to reason in terms of relationships and similarities, rather than rules and categories. Uskul et al. (2008) examined holistic cognitive tendencies in attention, categorization, and reasoning in three types of communities in the Black Sea region of Turkey, belonging to the same national, geographic, ethnic, and linguistic region and but varying in their degree of social interdependence: farming, fishing, and herding communities. Members of farming and fishing communities, which emphasize harmonious social interdependence, exhibited greater Holistic thinking tendencies than members of herding communities, which emphasise individual decision making and foster social independence.

Ji, Peng & Nisbett (2000) in a study comparing U.S. students with Chinese, Japanese, and Korean students found evidence that the same social factors that lie behind the cultural differences in attention to the environment also affect the meaning and importance of control of the environment. They conclude that East Asians students appreciate control less than Americans would tend to assume, and Americans may resent lack of control more than Asians would guess. What are often presented and treated as superficial differences in customs may sometimes be produced by rather deep and fundamental differences in orientations toward the world.

Ecocultural factors may have lasting consequences on important aspects of cognition. Varnum, Grossmann, Kitayama & Nisbett (2010) have developed the relationships amongst cognitive and social orientations in Table 3, depicting cognitive patterns and social orientations, if they do in fact exist consistently, in Holistic/Collectivistic vs. Analytic/Individualistic societies.

*INSERT TABLE 3 ABOUT HERE.*

Implications of studies of Holistic vs. Analytic cognition and behaviour give rise to a necessity to investigate the research processes directed toward attempts to identify and define implicit and explicit leader trait and behaviour dimensions that may or may not exist across cultures, *and in fact whether a theory based upon discrete dimensions is applicable across cultures*.

Conclusions from my investigation of the literature are that we should expect to see different value *structures* for preferred leader behaviour dimensions in factor analyses due to proposed effects from Holistic/Collectivistic and Analytic/Individualist societies in both analyses searching for charisma dimensions and analyses testing the existence of particular dimensions of leadership preferences across cultures. My hypotheses:

*Hypothesis: Holistic vs. Analytic Structure for Charismatic Behaviour: A consistent three-factor preferred charismatic leader behaviour will be observed across factor analyses for all societies studied.*

*Hypothesis: Holistic vs. Analytic Structure for Preferred Leader Dimensions: A consistent twelve-factor model of leader behaviour will be observed across factor analyses for all societies studied.*

**METHOD**

 The Leader Behaviour Description Questionnaire XII was translated from English to local languages by an at least two-person, double blind English-Local-English procedure, and pilot tests were run in China, Ghana, and Romania to identify and resolve item interpretation problems. Using systematic random sampling (Tashakkori and Teddlie, 2003) local collaborators attempted to obtain at least a sample size of three hundred employed businesspeople at all job levels. In some samples the final size was less than 300 after data cleaning and response problem analyses. We obtained samples of sufficient size in

Chile, China (Guangzhou City, Hangzhou City, Macau, and Zhengzhou City), Ghana, Japan, Kenya, South Africa, South Korea, Mexico, Turkey (Istanbul and Izmir), Uganda, New Zealand, and Zambia. One thrust of the global research project has been to work in under-represented regions, which has led to a majority of samples being from Holistic/Collectivist societies, with the exception of New Zealand.

**ANALYSIS AND RESULTS**

 A problem in this venture into a new area of leader behavioural and culture relationships is that the large majority of the research on Holistic vs. Analytic thinking has been interpretive, with relatively small samples of subjects being interviewed as to responses to a figure-ground presentation of some sort. No valid, reliable, widely used field survey research instrument has been developed. We have some options, based upon the 100-item, 12-dimension model of preferred leader behaviour of the LBDQXII. The LBDQXII model hypothesises that the twelve-factor solution with sets or sub-sets of the items defining the dimensions will replicate across samples.

 From various studies employing and analysing the LBDQXII (e.g., Littrell, 2010), researchers have noted that: (1) Reverse scored items are generally unreliable members of those defining the preferred leader dimensions. (2) Very often most reverse scored items are included in a single factor in the societies studied so far. (3) More than likely due to inattention on the part of participants when completing the survey, they tend to have a different score distribution than positively stated items, which can lead to negative factor loadings in the dimensions they are included in per the model.

 From our literature review and hypotheses:

1. We expect Holistic-thinking/Collectivist societies to produce from factor analysis a general factor with a large number of items, perhaps the number of items could be an indicator of relative Holistic vs. Analytic thinking practices for the society or sample. Analytic thinking societies will generate a relatively large number of orthogonal factors, generally fitting the 12-factor LBDQ, Holistic thinking societies will tend to generate a many-item general factor with few other dimensions.
2. For the 15-item 3-factor test of charisma dimensions, we expect the degree of presence or absence of many items loading on multiple factors could be an indicator of the Holistic or Analytic thinking tendencies of the societies sampled.

 As this is an exploratory analysis of relationships of preferred leader behaviour and Holistic vs. Analytic thinking, we propose these two measures as defining estimates. Including matrices of all the factor analysis results is beyond the size restrictions of this conference paper, so two exemplary societies, New Zealand as Analytic/Individualistic, and China-Guangzhou as Holistic/Collectivist, will be examined and discussed. Raw data from the global samples is available from the author.

Table 4 lists the Varimax rotated factor loading matrices for exploratory factor analyses of the 100 items from the LBDQXII for the New Zealand and Guangzhou samples. There are distinct differences in the matrices, with the responses from New Zealand characteristic of and Analytic thinking society and the responses from Guangzhou of a Holistic thinking society. This pattern continues for the societies that have been indicated as high Collectivism in various studies, depicted in Table 5, with three estimates of Collectivism: In-group/Family Collectivism from the GLOBE project (House et al., 2004), Minkov’ Exclusivism (2007, 2011), and Hofstede, Hofstede & Minkov’s (2010) Individualism. The volume of detailed results is prohibitive for inclusion in this paper; factor matrices available via email from author. In Table 5 I have listed the Collectivism scores[[2]](#footnote-2) along with a brief description of the outcomes of exploratory factor analyses for the larger samples and the restricted 3-factor solution for Charisma dimensions. From Tables 4 and 5, societies with higher Collectivism means tended to have a first factor component with multiple items from the hypothesised dimensions, and charisma factors with multiple high item loadings on multiple factors. This follows the expectations of Holistic thinking societies.

*INSERT TABLE 4 ABOUT HERE*

*INSERT TABLE 5 ABOUT HERE*

 Preliminary analyses of the fifteen items related to charismatic leader behaviour using varimax factor analyses with no restriction on the number of factors generated indicates that analyses of responses from more Collectivist societies tend to yield fewer than three factors. Future analyses and publications are planned investigating this situation.

From these results I see strong indications that theories and models of leadership and leader behaviour attempting to derive unique, orthogonal dimensions, or even oblique, correlate dimensions, may not be applicable in societal cultures that demonstrate significant propensities for Holistic thinking and cognition, possibly with high Collectivism as an indicator or antecedent condition. Results indicate support for both hypotheses.

DISCUSSION

With the myriad statistical analysis techniques available to us today, we can almost always find ones that can produce and replicate leader behaviour dimensions, and also cultural value dimensions, that appear to be well defined. However, we may be generating artefacts that do not truly represent the opinions, attitudes, beliefs, behaviours, and cognitive functioning of the societies we are studying. Starting with a blank slate in designing theories, models, and measures of preferred leader behaviour and cultural value dimensions in societies that have strong propensities for Holistic cognition could produce very different structures than those generated by researchers from Analytic-cognition societies. It may well be that Analytic thinkers could have difficulties perceiving the structure of leadership in Holistic societies, much less designing theories and surveys. All societies, Holistic or Analytic, generally produce experienced academics and members of the general public who are able to think analytically and understand and respond to discussions and survey items that parse a Holistic view into discrete responses to discrete items or questions. Similar items and questions can produce similar or at least interpretable responses that are statistically correlated, no matter what the cognitive style of the respondent to a survey or study. We cannot be sure that such responses represent a typical way of thinking about, engaging in, and responding to leadership, or are merely responses to a puzzle or an intellectual challenge.

We are far along the road of creating dimension-based models of social and individual behavioural phenomena. It is time to stop and take a look to see if there were forks in the road that many of us did not see due to our Analytic thinking blinders.

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**TABLE 1.**

**GLOBE Project First and Second Order Dimensions and LBDQII Dimensions**

|  |  |
| --- | --- |
| **Globe Leadership Dimensions**  | **LBDQXII Leadership Dimensions** |
| **CHARISMATIC / VALUE-BASED** * Charisma1:visionary
* Charismatic2:inspirational
* Charisma3:Self-sacrifice
* Integrity
* Decisive
* Performance-oriented
 | **Factor 1: Representation** measures to what degree the manager speaks as the representative of the group. **Factor 2: Demand Reconciliation** reflects how well the manager reconciles conflicting demands and reduces disorder to system. **Factor 3: Tolerance of Uncertainty** depicts to what extent the manager is able to tolerate uncertainty and postponement without anxiety or getting upset. **Factor 4: Persuasiveness** measures to what extent the manager uses persuasion and argument effectively; exhibits strong convictions. **Factor 5: Initiation of Structure** measures to what degree the manager clearly defines own role, and lets followers know what is expected. **Factor 6: Tolerance of Freedom** reflects to what extent the manager allows followers scope for initiative, decision and action.**Factor 7: Role Assumption** measures to what degree the manager exercises actively the leadership role rather than surrendering leadership to others. **Factor 8: Consideration** depicts to what extent the manager regards the comfort, well-being, status and contributions of followers.**Factor 9: Production Emphasis** measures to what degree the manager applies pressure for productive output. **Factor 10: Predictive Accuracy** measures to what extent the manager exhibits foresight and ability to predict outcomes accurately. **Factor 11: Integration** reflects to what degree the manager maintains a closely-knit organization; resolves inter-member conflicts.**Factor 12: Superior Orientation** measures to what extent the manager maintains cordial relations with superiors; has influence with them; is striving for higher status. |
| **HUMANE-ORIENTED**  |
| * Modesty
* Humane-orientation
 |
| **PARTICIPATIVE** * Autocratic (reverse scored)
* Nonparticipative
 |
| **TEAM-ORIENTED*** Team1:collaborativeteamorientation
* Team2:teamintegrator
* Diplomatic
* Malevolent
* Administrativelycompetent
 |
| **AUTONOMOUS** * Autonomous
 |
| **SELF-PROTECTIVE** * Self-centred
* Statusconscious
* Conflictinducer
* Face-saver
* Procedural/bureaucratic
 |

**TABLE 2.**

**Comparison of Questionnaire Items Relating to Charismatic Leadership in the GLOBE Project Survey and the Leader Behaviour Description Questionnaire XII**

| **GLOBE Scale Name**  | **GLOBE Survey Item Numbers and Text** | **LBDQXII Item Numbers & Text** |
| --- | --- | --- |
| **Charisma 1: Visionary**  | 2-12 Inspirational = Inspires emotions, beliefs, values, and behaviors of others, inspires others to be motivated to work hard 2-13 Anticipatory = Anticipates, attempts to forecast events, considers what will happen in the future 2-35 Prepared = Is ready for future events 2-56 Intellectually Encourages others to think and use their stimulating = minds; challenges beliefs, stereotypes and attitudes of others 4-10 Foresight = Anticipates possible future events4-11 Plans ahead = Anticipates and prepares in advance4-19 Able to Anticipate = Able to successfully anticipate future needs 4-46 Visionary = Has a vision and imagination of the future 4-51 Future-oriented = Makes plans and takes actions based on future goals | **Predictive Accuracy:** **Corresponds to GLOBE Charisma 1: Visionary**9. Makes accurate decisions29. Seems able to predict what is coming next49. Things usually turn out as he/she predicts59. Is accurate in predicting the trend of events89. Anticipates problems and plans for them |
| **Charismatic 2: Inspirational**  | 2-5 Positive = Generally optimistic and confident 2-31 Encouraging = Gives courage, confidence or hope through reassuring and advising 2-32 Morale booster = Increases morale of subordinates by offering encouragement, praise, and/or by being confident 2-48 Enthusiastic = Demonstrates and imparts strong positive emotions for work 4-20 Motive arouser = Mobilizes and activates followers 4-26 Confidence builder = Instills others with confidence by showing confidence in them 4-35 Dynamic = Highly involved, energetic, enthused, motivated 4-42 Motivational = Stimulates others to put forth efforts above and beyond the call of duty and make personal sacrifices  | **Persuasiveness: Corresponds to GLOBE Charismatic 2: Inspirational** 3. Makes pep talks to stimulate the group13.His/her arguments are convincing23. Argues persuasively for his/her point of view33. Is a very persuasive talker43. Is very skilful in an argument*53. Is not a very convincing talker (reverse scored)*63. Speaks from a strong inner conviction73. Is an inspiring talker83. Persuades others that his/her ideas are to their advantage93. Can inspire enthusiasm for a project |
| Charisma 3: Self-Sacrifice  | 2-14 Risk taker = Willing to invest major resources in endeavors that do not have high probability of successful (sic). ***Author Comment:*** *this item is not phrased to explicitly indicate a reason for the investment, and could be interpreted to imply irresponsible behaviour or poor judgement.***4-22 Convincing = Unusually able to persuade others of his/her viewpoint.** ***Author Comment:*** this item appears to be only distantly related to Self-Sacrifice, if at all.4-30 Self-sacrificial = Foregoes self-interests and makes personal sacrifices in the interest of a goal or vision. | The LBDQXII does not include items related to Self-Sacrifice: From the Persuasiveness dimension: **13. His/her arguments are convincing, similar to GLOBE 4-22.** |

**TABLE 3.**

**Behavioural Relationships Amongst Cognitive Patterns and Social Orientations**

**Cognitive Patterns**

| **Traits** | **Analytic Cognition** | **Holistic Cognition** |
| --- | --- | --- |
| *Attention*  | * Field Independent
* Narrow view
* Focus on salient objects with intent to manipulate them
 | * Field Dependent
* Broad view
* Focus on relationships of elements and background
 |
| *Categorization*  | * Taxonomic, focus on a single dimension or shared property
 | * Thematic, focus on functional relationship or overall similarity
 |
| *Attribution*  | * Dispositional, traits and attributes of individuals determine events
 | * Situational, external forces, context, and situations determine events
 |
| *Reasoning*  | * Analytic
* Use of formal logic
* Trends tend to continue sequentially
 | * Dialectical
* Middle way philosophy
* Trend reversals or tangents are likely
 |

**Social Orientation Patterns**

| **Traits** | **Independent Social Orientation** | **Interdependent Social Orientation** |
| --- | --- | --- |
| *Values & Beliefs*  | * Individualism
* Autonomy
 | * Collectivism
* Harmony
 |
| *Self*  | * Independent self-construal
* Social identity is personal
* Definition of self is generally bounded by the individual
 | * Interdependent self-construal
* Relational social identity
* Definition of self tends to overlap with close others
 |
| *Emotions*  | * Higher propensity for socially disengaging emotions
* Happiness is a disengaging emotion disengaging emotion, e.g. pride
 | * Higher propensity for socially engaging emotions
* Happiness as an engagingemotion, e.g. sense of closeness to others
 |
| *Motivation*  | * Individual achievement
* Self-enhancement
* Ego-inflation
 | * Achievement for in-group
* Self-criticism
* Self-other interconnection
* Demonstrate humility
 |

Varnum, Grossmann, Kitayama & Nisbett (2010), based upon Tables 1 & 2

**TABLE 4.**

**Comparison of New Zealand and China-Guangzhou Exploratory Dimension Solutions from LBDQXII Item Scores**

NEW ZEALAND, VARIMAX ROTATION, EIGENVALUES > 1

| Item/Factor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Persuasiveness |
| 43 |   | 0.8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 33 |   | 0.7 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 23 |   | 0.6 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 13 |   | 0.5 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 73 |   | 0.5 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 51 |   | 0.4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Predictive Accuracy |
| 59 |   |   | 0.7 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 29 |   |   | 0.7 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 49 |   |   | 0.6 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 81 |   |   | 0.5 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 89 |   |   | 0.4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 80 |   |   | 0.4 |   |   |   |   |   |   |   |   |   | 0.4 |   |   |   |   |
| 40 |   |   | 0.4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Initiation of Structure |
| 74 |   |   |   | 0.7 |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 44 |   |   |   | 0.6 |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 14 |   |   |   | 0.6 |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 54 |   |   |   | 0.6 |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 94 |   |   |   | 0.6 |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Production Emphasis |
| 99 |   |   |   |   | 0.7 |   |   |   |   |   |   |   |   |   |   |   |   |
| 98 |   |   |   |   | 0.6 |   |   |   |   |   |   |   |   |   |   |   |   |
| 78 |   |   |   |   | 0.6 |   |   |   |   |   |   |   |   |   |   |   |   |
| 100 |   |   |   |   | 0.4 |   |   |   |   |   |   |   |   |   |   |   |   |
| Superior Orientation |
| 30 |   |   |   |   |   | 0.8 |   |   |   |   |   |   |   |   |   |   |   |
| 90 |   |   |   |   |   | 0.7 |   |   |   |   |   |   |   |   |   |   |   |
| 50 |   |   |   |   |   | 0.5 |   |   |   |   |   |   |   |   |   |   |   |
| 48 |   |   |   |   |   | 0.5 |   |   |   |   |   |   |   |   |   |   |   |
| 31 |   |   |   |   |   | 0.5 | 0.5 |   |   |   |   |   |   |   |   |   |   |
| 88 |   |   |   |   |   | 0.5 |   |   |   |   |   |   |   |   |   |   |   |
| Representation |
| 21 |  |  |  |  |  |  | *0.8* |   |   |   |   |   |   |   |   |   |   |
| 1 |  |  |  |  |  |  | *0.8* |   |   |   |   |   |   |   |   |   |   |
| 41 |  |  |  |  |  |  | *0.5* |   |   |   |   |   |   |   |   |   |   |
| Role Assumption |
| 85 |   |   |   |   |   |   |   | 0.7 |   |   |   |   |   |   |   |   |   |
| 27 |   |   |   |   |   |   |   | 0.5 |   |   |   |   |   |   |   |   |   |
| 67 |   |   |   |   |   |   |   | 0.4 |   |   |   |   |   |   |   |   |   |
| Superior Orientation |
| 7 |   |   |   |   |   |   |   |   | 0.7 |   |   |   |   |   |   |   |   |
| 10 |   |   |   |   |   |   |   |   | 0.6 |   |   |   |   |   |   |   |   |
| 20 |   |   |   |   |   |   |   |   | 0.4 |   |   |   |   |   |   |   |   |
| Tolerance of Freedom |
| 15 |   |   |   |   |   |   |   |   |   | 0.7 |   |   |   |   |   |   |   |
| 35 |   |   |   |   |   |   |   |   |   | 0.6 |   |   |   |   |   |   |   |
| 25 |   |   |   |   |   |   |   |   |   | 0.5 |   |   |   |   |   |   |   |
| Tolerance of Uncertainty |
| 52 |  |  |  |  |  |  |  |  |  |  | *0.7* |  |  |  |  |  |  |
| 32 |  |  |  |  |  |  |  |  |  |  | *0.7* |  |  |  |  |  |  |
| Laissez faire |
| 55 |   |   |   |   |   |   |   |   |   |   |   |   |   | -0.7 |   |   |   |
| 95 |   |   |   |   |   |   |   |   |   |   | 0.5 |   |   | -0.5 |   |   |   |
| 68 |   |   |   |   |   |   |   |   |   |   |   |   |   | -0.5 |   |   |   |
| Anxiety |
| 92 |   |   |   |   |   |   |   |   |   |   |   | 0.7 |   |   |   |   |   |
| 42 |  |  |  |  |  |  |  |  |  |  | *0.4* | *0.5* |  |  |  |  |  |
| 12 |   |   |   |   |   |   |   |   |   |   |   | 0.4 |   |   |   |   |   |
| 58R |   |   |   |   |   |   |   |   |   |   |   | -0.4 |   |   |   |   |   |
| Communication |
| 64 |   |   |   |   |   |   |   |   |   |   |   |   | 0.8 |   |   |   |   |
| 63 |   |   |   |   |   |   |   |   |   |   |   |   | 0.6 |   |   |   |   |
| Autonomy |
| 97 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | *0.8* |   |   |
| 26 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | *0.4* |   |   |
| Gregariousness |
| 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | *0.8* |   |
| 9 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | *0.4* |   |
| 57 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | *-0.4* |   |
| Public Relations for Group |
| 60 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | *0.8* |
| 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | *0.5* |

CHINA-GUANGZHOU, VARIMAX ROTATION, EIGENVALUES > 1

| Item/Factor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 49 | .7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 | .7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 73 | .7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | .3 |  |  |  |
| 59 | .7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 51 | .6 |  |  |  |  |  |  |  |  |  |  |  | .3 |  |  |  |  |  |  |  |  |  |  |
| 39 | .6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 100 | .6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 22 | .6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 70 | .6 |  |  |  |  | .3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 28 | .6 |  |  |  |  |  | .4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 69 | .6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 47 | .6 |  |  |  |  |  |  |  |  |  | .5 |  |  |  |  |  |  |  |  |  |  |  |  |
| 29 | .6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | -.4 |
| 40 | .5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | -.3 |  |  |  |  |
| 19 | .5 |  |  |  | .4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 21 | .5 |  |  |  | .4 |  |  |  |  |  |  |  |  |  | .3 |  |  |  |  |  |  |  |  |
| 25 | .5 |  |  |  |  |  |  |  | .3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 85 | .5 |  | .3 |  |  |  |  |  | .5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 37 | .5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | -.4 |  |  |
| 13 | .5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 43 | .5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 67 | .5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | .3 |  |  |  |  |
| 60 | .5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | .4 |  |  |  |  |
| 81 | .5 |  | .3 |  |  | .4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 33 | .5 |  |  |  | .4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 | .5 |  |  |  |  |  |  |  |  |  | .4 |  |  |  |  |  |  |  |  |  |  |  |  |
| 99 | .5 |  | .4 |  |  |  |  |  |  |  |  |  |  |  |  | .4 |  |  |  |  |  |  |  |
| 3 | .5 |  |  |  |  |  |  | .3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 79 | .5 |  | .3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 48 | .5 |  |  |  |  |  |  |  |  |  | .4 |  |  |  |  |  |  |  | .3 |  |  |  |  |
| 41 | .5 |  |  | .3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 72 | .5 |  |  |  |  |  |  | .3 |  |  |  |  |  |  |  |  |  |  |  |  | .3 |  |  |
| 68R | .5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | .4 |  |  |  |  |
| 4 | .5 |  |  |  |  |  |  | .4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 44 | .5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | .4 |  |  |
| 74 | .5 |  |  |  |  |  |  |  |  | .4 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 38 | .5 |  |  |  |  |  |  |  |  |  |  |  | .3 |  |  |  |  |  |  |  |  |  |  |
| 9 | .4 |  |  |  |  |  |  |  |  |  | .3 | .3 |  |  |  |  |  |  |  |  |  |  |  |
| 27 | .4 |  |  |  | .3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | -.3 |  |
| 63 | .4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 83 | .4 |  | .7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 82 | .3 |  | .7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 94 |  |  | .6 |  |  | .3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 84 | .3 |  | .5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 78 | .3 |  | .5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 93 | .4 |  | .5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 30 |  |  |  | .8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 31 | .4 |   |   | .5 |   |   |   |   |   |   |   |   |   |   | .4 |   |   |   |   |   |   |   |   |
| 58 |   |   |   | .5 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 0.4 |
| 90 |   |   |   | .4 |   | .4 |   |   |   |   |   |   |   |   |   |   |   | .3 |   |   |   |   |   |
| 18 |   |   |   | .4 |   |   |   |   |   |   |   | .4 |   |   |   |   |   |   |   |   |   |   |   |
| 64 |   |   |   | .4 |   |   |   |   |   |   |   |   | .3 |   |   |   |   |   |   |   |   |   |   |
| 34 | .4 |   | .4 |   | .6 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 20 | .4 |   |   |   | .6 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 96 |   |   |   |   |   | .6 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 80 |   |   |   |   |   | .6 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 95 | .3 |   |   |   |   | .4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 88 |   |   |   |   |   |   | .7 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 89 | .5 |   |   |   |   |   | .6 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1 | .4 |   |   |   |   |   | .4 | .4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 5 |   |   |   |   |   |   |   | .7 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 2 | .4 |   |   |   |   |   |   | .5 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 35 | .3 |   |   |   |   |   |   |   | .6 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 55 | .3 |   |   |   |   |   |   |   | .5 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 14 | .3 |   |   |   |   |   |   |   | -.3 |   |   | .3 |   |   |   | .3 |   |   |   |   |   |   |   |
| 77 | .5 |   |   |   |   |   |   |   |   | .6 |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 75 | .3 |   |   |   |   |   |   |   |   | .6 |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 76 | .4 |   |   |   |   |   |   |   |   | .5 |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 15 | .3 |   |   |   |   |   |   |   |   | .3 |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 10 |   |   |   | .3 |   |   |   |   |   |   | .5 |   |   |   |   |   |   |   |   |   |   |   |   |
| 7 |   |   |   |   |   |   |   |   |   |   | .4 |   |   | .4 |   |   |   |   |   |   |   |   |   |
| 8 |   |   |   |   |   |   |   |   |   |   |   | .7 |   |   |   |   |   |   |   |   |   |   |   |
| 50 |   |   |   |   |   |   |   |   |   |   |   | .6 |   |   |   |   |   | .3 |   |   |   |   |   |
| 52 |   |   |   |   |   |   |   |   |   |   |   |   | .7 |   |   |   |   |   |   |   |   |   |   |
| 66R |   | .3 |   |   |   |   |   |   |   |   |   |   | -.5 |   |   |   |   |   |   |   |   | .4 |   |
| 32 |   |   |   |   |   |   |   |   |   |   |   |   |   | .7 |   |   |   |   |   |   |   |   |   |
| 6R |   |   |   |   |   |   |   |   |   |   |   | -.4 |   | -.6 |   |   |   |   |   |   |   |   |   |
| 24 | .4 |   |   |   |   |   |   |   |   |   |   |   |   |   | .6 |   |   |   |   |   |   |   |   |
| 54 | .3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | .7 |   |   |   |   |   |   |   |
| 98 |   |   | .3 |   |   |   |   |   |   |   |   |   |   |   | .3 | .4 |   |   |   |   |   |   |   |
| 42R |   | .4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | .7 |   |   |   |   |   |   |
| 86 | .3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | .6 |   |   |   |   |   |
| 87 |   | .4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | -.5 |   |   |   |   |   |
| 16 |   | .5 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | .6 |   |   |   |
| 45 | .5 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | .5 |   |   |
| 26R |   | .3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | .7 |   |
| 46R |   | .5 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 0.6 |

**TABLE 5.**

**Various Estimates of Individualism/Collectivism in Societies and Outcomes of Exploratory Factor Analyses**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | GLOBE FamilyCollectivism | Exclusivism (Collectivism) | Individualism | General Factor Item Count | Indications from Factor Analysis,Charisma, 3-Factor Model |
| ***Grand Mean*** | ***5.11*** | ***534*** | ***45.2*** |  |  |
| ***Grand SD*** | ***0.74*** | ***264*** | ***24.0*** |  |  |
| China\_Guangzhou |  |  |  | 40 | Strong indications of Holistic thinking |
| China\_Hanzhou |  |  |  | Eight factors, many items with multiple high loadings, not closely fitting model | 3 factors, many items with multiple high loadings |
| China\_Macau |  |  |  | Two multi-item (18 &11) general factors | 3 factors identified with very few items with multiple high loadings |
| China\_Zhengzhou |  |  |  | Two 22 & 16 item general factors | 3 factors identified with several items with multiple high loading |
| Chile |  | 382, low | 23, high coll. | None, multiple discrete factors found not closely fitting model | 3 factors identified with several items with multiple high loadings |
| Ghana |  |  |  | Large number of orthogonal factors, not closely fitting model | 3 factors, many items with multiple high loadings |
| Japan | 4.63: low | 333: low | 46: moderate coll. | None | 3 factors identified with several items with multiple high loadings |
| Kenya |  |  |  | 22 | 3 factors, few items with multiple high loadings |
| Mexico | 5.71 | 681 | 30 mod. high coll. | 22 | 3 factors identified with very few items with high multiple loadings |
| NewZealand | 3.67: very low | 46: amongstlowest | 79: very low coll. | None, general fit to model | Analytic thinking, well-defined factors generally fitting LBDQXII model |
| SouthKorea | 5.54 | 476: mod. low | 18: very high coll. | 18 | 3 factors identified with many items with multiple high loadings |
| SoAfricaB\* | 5.18 | 756 |  | 45 | 3 factors identified with many items with multiple high loadings |
| SoAfricaW\* | 4.42: low |  | 65: low coll. | 37 | 3 factors identified with many items with multiple high loadings |
| Turkey | 5.88 high | 585: mod. high | 37: high coll. | 26 | 3 factors with many items with multiple high loadings |
| Uganda |  |  |  | 25 | 3 factors with few multiple loadings |
| Zambia | 5.84: high |  |  | None, not closely fitting model | 3 factors identified with very few items with high multiple loadings |

**TABLE 5.**

**Comparison of New Zealand and China-Guangzhou 3-Factor Charisma Dimension Solutions**

NEW ZEALAND

| VARIMAX: 3 FACTORS | 1 | 2 | 3 | VARIMAX: EIGENVALUES >1 | 1 | 2 | 3 | 4 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 43. Is very skilful in an argument | 0.8 |  |  | 73Is an inspiring talker | 0.7 | 0.3 |   |   |
| 33. Is a very persuasive talker | 0.7 |  |  | 53RIs not a very convincing talker (reverse scored) | 0.7 |   |   |   |
| 23. Argues persuasively for his/her point of view | 0.6 |  |  | 93Can inspire enthusiasm for a project | 0.6 |   |   |   |
| 83. Persuades others that his/her ideas are to their advantage | 0.6 |  | 0.4 | 63Speaks from a strong inner conviction | 0.5 |   | 0.3 | -0.3 |
| 13.His/her arguments are convincing | 0.6 | 0.3 |  | 23Argues persuasively for his/her point of view |   | 0.8 |   |   |
| *53. Is not a very convincing talker (reverse scored)* | 0.5 |  | 0.3 | 43Is very skilful in an argument | 0.4 | 0.7 |   |   |
| 93. Can inspire enthusiasm for a project | 0.4 | 0.3 | 0.4 | 33Is a very persuasive talker | 0.3 | 0.6 |   |   |
| 63. Speaks from a strong inner conviction | 0.4 | 0.4 |  | 13His/her arguments are convincing |   | 0.5 |   |   |
| 59. Is accurate in predicting the trend of events |  | 0.8 | 0.3 | 83Persuades others that his/her ideas are to their advantage |   | 0.5 | 0.3 |   |
| 29. Seems able to predict what is coming next |  | 0.7 |  | 59Is accurate in predicting the trend of events |   |   | 0.8 |   |
| 49. Things usually turn out as he/she predicts |  | 0.6 |  | 29Seems able to predict what is coming next |   |   | 0.8 |   |
| 89. Anticipates problems and plans for them | 0.3 | 0.4 |  | 49Things usually turn out as he/she predicts |   | 0.4 | 0.6 |   |
| 73. Is an inspiring talker |  |  | 0.7 | 89Anticipates problems and plans for them | 0.5 |   | 0.5 |   |
| 3. Makes pep talks to stimulate the group |  |  | 0.7 | 3Makes pep talks to stimulate the group |   |   |   | 0.7 |
| 9. Makes accurate decisions |  | 0.3 | 0.4 | 9Makes accurate decisions |   |   | 0.3 | 0.6 |

CHINA-GUANGZHOU

| VARIMAX: 3 FACTORS | 1 | 2 | 3 | VARIMAX: EIGENVALUES >1, TWO FACTORS | 1 | 2 |
| --- | --- | --- | --- | --- | --- | --- |
| 49Things usually turn out as he/she predicts | 0.8 |   |   | 23Argues persuasively for his/her point of view | 0.7 |   |
| 33Is a very persuasive talker | 0.7 |   |   | 13His/her arguments are convincing | 0.7 |   |
| 43Is very skilful in an argument | 0.7 |   |   | 59Is accurate in predicting the trend of events | 0.7 |   |
| 13His/her arguments are convincing | 0.6 | 0.4 |   | 73Is an inspiring talker | 0.7 |   |
| 23Argues persuasively for his/her point of view | 0.6 | 0.5 |   | 3Makes pep talks to stimulate the group | 0.7 |   |
| 59Is accurate in predicting the trend of events | 0.6 | 0.4 |   | 93Can inspire enthusiasm for a project | 0.7 |   |
| 93Can inspire enthusiasm for a project | 0.6 | 0.4 |   | 49Things usually turn out as he/she predicts | 0.7 |   |
| 63Speaks from a strong inner conviction | 0.5 |   |   | 43Is very skilful in an argument | 0.7 |   |
| 83Persuades others that his/her ideas are to their advantage |   | 0.7 |   | 33Is a very persuasive talker | 0.7 | 0.4 |
| 9Makes accurate decisions |   | 0.7 |   | 89Anticipates problems and plans for them | 0.7 |   |
| 3Makes pep talks to stimulate the group | 0.3 | 0.7 |   | 9Makes accurate decisions | 0.6 |   |
| 73Is an inspiring talker | 0.4 | 0.7 |   | 29Seems able to predict what is coming next | 0.6 | -0.4 |
| 89Anticipates problems and plans for them | 0.4 | 0.5 |   | 83Persuades others that his/her ideas are to their advantage | 0.6 |   |
| 53RIs not a very convincing talker (reverse scored) |   |   | 0.8 | 63Speaks from a strong inner conviction | 0.5 |   |
| 29Seems able to predict what is coming next | 0.3 | 0.5 | -0.5 | 53RIs not a very convincing talker (reverse scored) |   | 0.9 |

1. Country collaborators responsible for data collection and analyses: Chile, Leonardo Liberman Yaconi, Universidad Adolfo Ibanez; China, Ilan Alon, Rollins College & Kaiwa Chan, University of Macau; Roger Lim, retired hotelier, Singapore; Ghana, Kenya & Zambia, Nai Wu, Texas A&M University; Japan, Mari Kondo, Doshisha Business School; Mexico, Evangelina Cruz Barba; Universidad de Guadalajara; New Zealand, Romie F. Littrell, Auckland University of Technology; South Africa, Stella Nkomo, University of Pretoria; South Korea, Gary Gregory, University of New South Wales; Turkey, teams led by Alev Katrinli, Izmir University of Economics & Handan Sinagil, Marmara University; Uganda, Peter Baguma, Makerere University. [↑](#footnote-ref-1)
2. \*NOTE: Individualism/Collectivism studies in Sub-Saharan Africa such as Wanasika, Howell, Littrell, & Dorfman (2011), find that In-Group/Family Collectivism is generally valued highly for all Black samples , and research by Trompenaars and Hampden-Turner (1998) indicates that the Xhosa of South Africa are significantly more individualistic than the Zulu, Tsonga, and South Sotho ethnic groups, and that English-speaking South Africans are significantly more individualistic than Afrikaans-speaking. Sub-Saharan Africans are less individualistic, more communal, than cultures identified as Western. The results from Thomas and Bendixen (2000) for South African ethnic groups identified as Afrikaans, English, Zulu, Xhosa, Sotho, Asian, and Coloured found extremely low Hofstede Individualism means for *all* sub-cultures in that country. [↑](#footnote-ref-2)