Cultural Modeling: Re-orienting the *Yijing* archetypes as a method of profiling organizational culture to improve cross-cultural collaboration

Mondo Secter

Simon Fraser University

Abstract

The aim of this paper is to present a binary typology that can explain organizational culture according to three core dimensions. These dimensions correspond to a set of eight ancient Chinese archetypes, and can also be shown to relate to the dimensions or measures found in a wide range of cultural models in the fields of organizational behavior and social psychology. This binary model can be used for creating organizational profiles that are meaningful according to both Western and East Asian cultural frames of reference, and as such it could function as a cultural bridge in East-West collaborative ventures.

Introduction

This paper presents a three-dimension binary framework with eight binary quadrants or categories for modeling (organizational) culture. This value-free model borrows its descriptive meaning from the eight trigram symbols of the *I Ching*, an ancient Chinese system divination. The three lines in each archetypal symbol correspond to binary digits (0 and 1). Theoretical reasoning is used to analyze the qualities and attributes of the symbols according to their common binary-equivalent values in order to ascertain the nature of the three underlying conditions that best explain or account for their characteristics. These are hypothesized as the dimensions, constructs, or measures that can be used as the basis for discussing culture in cross-cultural environments, and for dealing with compatibility and other cultural issues and in international settings.

The Binary Culture Model (BCM) is basically a typology for classifying groups, organizations, and other cultural entities according to eight distinct binary categories. By referencing existing scholarship in the fields of social psychology and organizational behavior, the BCM, informed as it is by the Chinese trigram archetypes, can serve as a cross-cultural (East-West) explanatory system for correlating various models and systems for representing

culture and cultural dimensions to each other.

In pragmatic terms, this system provides East Asians with a familiar, practical, and culturally compatible method for sense-making of Western conceptualizations of organizational culture. It provides a mechanism for Western scholars and practitioners to transpose their notions and theories of culture in a way that will be comfortable to East Asians. It has a potential for success because it resonates with an East Asian cosmology related to patterns of relating and decision-making.

Culture Research

"(T)he establishment of an international joint venture always results in the crossing or the interaction of parental cultures… or cultural collision" (Malekzadeh & Nahavandi, 1988, p83, in Weber, 2000, p312). When cultures cross, a cultural shock can occur, often accompanied by negative effects on the organizations and the joint venture (Meschi & Roger, 1994).

The material on the cultural problems in cross-cultural collaborative ventures is abundant. Countless failures have occurred because culture was not considered a relevant matter. As a result, successful partners were unsuccessful in their collaboration, because they were unable to resolve cultural issues or utilize their take cultural differences to good advantage. Cross-cultural effectiveness can be improved by increasing cultural awareness.

Managers who are aware of their own organizational cultures tend to take culture into consideration in their planning and decisions, and as a result their action are consistently more effective and their outcomes more successful. If organizations can identify their position along the spectrum of the primary cultural dimensions, and determine their cultural types or profiles, (potential) partners they will be able to compare cultural types and determine the nature or level of their compatibility. In this way they can optimize similarities and differences, and build trust and confidence in each other.

The scholarship in organizational culture largely developed out of social and organizational psychology since 1950 (Ashkanasy, Wilderom, & Peterson, 2000; Bond, 1988, 1997; Price-Williams, 1969). "Most existing models of organizational psychology... have been developed in the United States and Western Europe during the last three decades" and generally focus on the individual employee rather than on the character of the organization (Earley & Erez, 1997, p1). What is seriously lacking is conceptual framework and model that reflects an East Asian or other non-Western perspective for contextualizing culture.

This paper proposes adapting the basic principles traditional Chinese *yin-yang* philosophy for contextualizing and representing basic cultural values which are examined through the lens of what are termed "cultural dimensions."

James, Mulaik and Brett (1982) suggested starting with a theoretical framework before addressing situational conditions. Several dozen scholars have adopted the position that culture is best explained with two or three fundamental factors or dimensions. However, none of these supplies a method to account for the interrelationship between the dimensions and most do not have any system to make them operational.

Culture: cultural values, constructs, and dimensions

One meaning of culture is the "basic underlying assumptions, espoused values, norms, and artifacts"… whose elements reflexively influence one another over time (Schein 1992, in Beyer et al, 2000, p. 324). These conditions inform a cognitive system of knowledge and beliefs that generate "a consistent pattern of perceiving, relating, and interpreting information that affects individual and group behavior (Goodenough, 1964, in Abramson, Keating, & Lane, 1996, p. 125).

The term "dimension" is often confused with the notion of constructs or measures. By limiting the scope of this paper to a few core values it is possible to deal with culture at the highest levels of abstraction. This makes it easier for partnering organizations to discuss and understand their own organizational cultures in terms of each other's cultural values, and thereby obtain a clear impression of their cultural similarities and differences.

Even when countries have very similar cultures (such as Canada and the US, or China and Taiwan), collaborating partners often operate and comm-unicate according to very different sets of assumptions. Conflicts arise through misunderstanding, and serious problems follow. Managers who are aware of organizational culture have consistently demonstrated more adaptability in international settings and have had greater success with cross-cultural collaboration than those who are unaware or uninterested in culture. Glaister and Buckley (1999) proposed conducting a depth analysis of partner behaviors prior to the alliance to improve alliance performance, noting that "the greater the cultural distance between the home base of the partners" (p. 127), the more likely an alliance will fail. All this underscores the need for a method of easily framing cultural values in terms that are meaningful to both parties, particularly in East-West collaborative ventures

Establishing the Viability of the Binary Cultural Model (BCM)

The BCM is a method of classifying organizational cultures according to three fundamental bipolar constructs, whose values are generalized as either above or below the (theoretical) mean, and represented by the binary digits "1" (above the mean), and "0" (below the mean). The resulting three-dimensional binary typology defines eight cultural types: 111, 110, 101, 100, 011, 010, 001,

000.

Binary 1 is attributed to values that are linear, direct, structured, inflexible, firm, and self-oriented; whereas binary 0 is associated with values that are rounded, open, flexible, adaptable, and inclusive. Using three dimensions, an organization's culture can be easily located in an eight-quadrant cubic matrix. Organizational cultures have proximity and a greater potential for successful collaboration when two the three digits in their profiles are the same. Although this system has its limitations, it is useful for discussing culture, and making a complex issue more manageable and meaningful.

Connecting the Binary Cultural Model to the Chinese archetypal trigrams[1]

The intention is to develop a way to identify a simple model of organizational culture in order to help organizations develop a more successful approach to international collaboration, especially between the West (North America and Europe) and East Asia. The method creates a three-dimensional framework or "cultural typology" with three bipolar conditions. The quality or reliability of Binary Culture Modeling depends on identifying the basic constructs that define or characterize organizational culture.

The Binary Model is essentially value free, since the binary digits have no inherently descriptive characteristics. At the same time, the eight BCM triplets are structurally equivalent to eight archetypes called trigrams in traditional Chinese *yin-yang* philosophy and *I Ching* (*Book of Changes*) divination[2]. The trigram symbols are formed with three horizontal lines stacked vertically.[3] These are either undivided (— —), and empty in the middle, equivalent in meaning to a 0; or they are divided (——), like a horizontal 1. The trigrams can be converted to binary digits, with the bottom becoming the left digit and the top line becoming the right digit.

Each trigram has a comprehensive set of attributes and characteristics. By converting the trigram symbols into three-digit binary numbers, each binary triplet automatically acquires or inherits the conditions normally associated with the corresponding trigram. This provides the BCM with the descriptive qualities it was lacking. With a little effort these can be correlated to organizational types or cultures.

In the *yin-yang* system, the three trigram lines are not associated with any specific or particular qualities or descriptive meaning. However, by analyzing the trigrams it was possible to identify certain characteristics shared by the four trigrams with a common *yin* or *yang* line in the same position of the trigram symbol: bottom, middle, or top. Based on this analysis, it is hypothesized that these lines represent cultural dimensions at the most general level of abstraction. The first term in each pair relates to the *yin* side of the mean (0). The bottom line is Qualitative-Quantitative, the middle is Cooperative-Competitive, and the

top is Spontaneous-Systematic.

By converting the trigram symbols to binary numbers, and framing their qualities according to three cultural dimensions, it becomes possible for Western scholars in social psychology and organizational behavior to relate to an otherwise abstruse and esoteric Oriental system. Using the BCM as a bridging mechanism, the dimensions, measures, and values used in cultural surveys and modeling are interchangeable with the Chinese *yin-yang* conceptual framework. In this Chinese system, *yin* is dark, at rest, and yielding. *Yin* conditions and processes are heterogeneous, expanding, slowing down, amorphous, curvilinear, acquiescent, and more physical or material. *Yang* is light, active, and firm, while *yang* conditions and processes are homogeneous, contracting, accelerating, structured, linear, assertive, and intellectual or cerebral (Wilhelm, 1950).

The *yin* and *yang* lines can be seen as corresponding to binary values: 0 for *yin* (— —), and 1 for *yang* (——). The basic building blocks of the *yin-yang* system are the eight archetypal symbols *(ba gua)*, each composed of three *yin* or *yang* lines. In binary conversion, the lowest line of the trigrams is represented by the left digit, and the top line by the right digit. Each trigram represents one of the eight universal conditions: Creative (Heaven) 111, Joyous (Ocean) 110, Clinging (Light) 101, Arousing (Thunder) 100, Gentle (Wind) 011, Abysmal (Water) 010, Keeping Still (Mountain) 001, and Receptive (Earth) 000. This is the basis for establishing eight organizational types.

Converting Hofstede's IBM Survey to the Binary Cultural Model

A studied review of the organizational behavior and social psychology literature identified about fifty models and surveys that proposed cultural dimensions or a similar concept. Perhaps the most widely referenced survey is one conducted by Hofstede (1980, 1991) who found with IBM employees in 53 countries. Hofstede administered and analyzed about 110,000 questionnaires, using factor analysis and theoretical reasoning to support four cultural dimensions: Individualism (IN), Power Distance (PD), Masculine-Feminine (MF), and Uncertainty Avoidance (UA), and then computed scores for each dimension for each country.

The IBM scores are transposed to the Binary Cultural Model by converting values on one side of the mean to 1s and those on the other side to 0s. As a result, Individualism and Power Distance appear to be inversely correlated to more than 90%, which supported making a single dimension (PI). Interestingly, Hofstede originally fabricated the two from a single cultural measure. Each country now had three scores and a cultural profile expressed as three binary values. Using theoretical reasoning, the new PI dimension was related to Qualitative-Quantitative, the MF dimension to Cooperative-Competitive, and the UA dimension to Spontaneous-Systematic.

The countries are clustered on a simulated three-dimensional cube by matching their three-digit binary profiles with the digits of the quadrant. The scores for each country are in a given quadrant generally fall within a clearly limited score range. This indicates that the dimensional exert a mutual influence on each other according to the 1 and 0 values. The fact that distinct score ranges are identified for each quadrant suggests a high degree of score predictability. Under most conditions, when the scores are known for any two dimensions and converted to binary digits, the score range for the third dimension can be estimated with a high degree of accuracy. This means that the binary digits carry more information than simply identifying the side of the mean a value is on.

This method demonstrates the validity of the Binary Cultural Model for bridging an East Asian philosophical system with Western approaches to cultural modeling, because the correlation between the Binary Model and the IBM dimensions automatically establishes a relationship with the Chinese trigram system. By subjecting other Western models to BCM conversion, those models can be correlated to each other.

Relating the BCM to Western Construct Values

In looking at research models that use three constructs, the concerns are similar. Are the three cultural constructs basic and equivalent? Is one or more a lower level dimension? Are two of them sub-dimensions of the same construct? And so on. Wherever there is a question or concern about the equivalence between any three constructs, or between a set of Western constructs and those in the BCM, we will refer back to the BCM system, and if necessary to Chinese cosmology. It is necessary to keep in mind that this exercise is not intent on establishing any absolute truisms with regard to cultural values or dimension, but to develop a way of discussing cultural dimensions and values between Western and East Asian parties and partners.

Research models with four basic construct values are evaluated in the same way, but with an objective to adapt them to the BCM system. Here the challenge is one of reduction; reducing four to three. If two of the four are basic constructs and two are sub-dimensions, as appears to be the case with Hofstede's dimensions, then the resolution is straightforward. If there are two sets of sub-dimensions then it would not even be a three-construct model but only a two-dimensional one.

In every case we can use the BCM as a standard to ascertain what the model represents in Chinese cultural terms. And to the extent or degree to which construct values in Western research models can be successful related or adapted to the BCM, the BCM can be considered as a frame-of-reference for cultural modeling in East-West cross-cultural collaborative (and competitive) settings. In order to confirm or prove the viability or efficacy of the BCM

system, it is necessary to test by converting the scores and construct values or dimensions from Western survey to the BCM system

Review of the Literature

What follows is a review of the social psychology and organizational literature for cultural models that identify basic cultural or other values or constructs, or cultural dimensions. When organizational culture (or personality) is characterized at the highest level of abstraction in terms of any two basic constructs, one is represented on the horizontal axis (H), and the other on the vertical axis (V). These define four combinations to which I have appended binary values: high H and high V (11), high H and low V (10), low H and high V (01), and low H and low V (00).

Two dimensions represent the highest level of abstraction because four categories or clusters must account for the complete variety or array of cultural types, represented by one in each quadrant. This means that all aspects of culture are generalized according to two constructs. When the need arises to expand the description of culture according to three constructs or dimensions, the third cannot simply be added to the first two, because it is not a condition external to them. Rather, something inherent in the first two is extracted from them in order to create or establish a third distinct and meaningful construct. This means that a third construct is not added to the first two constructs but elicited from them.

The process alters (diminishes) the original two constructs in such a way and to such a degree that they no longer retain their original characterization. This is important because a different conceptual and semantic framework is necessary for a two-dimension model (composed of two constructs) than is required for a model defined by three basic dimensions, constructs, or values. One result of conceptual expansion is that new and different terms are necessary to define what is left of the original two constructs.

When working with two constructs, it is also possible to subdivide one (or both) of them, but it is logically imperative to keep in mind that each of the two dimensions elicited from a single, subdivided construct is equal to half (50%) the value of the original construct. This will avoid the problem of inadvertently diminishing the relative value of undivided construct.

When culture is organized according to two to four dimensions it makes the values “quite portable, universal, and more or less pan-situational. Although they will have limitations explaining specific behavior patterns, they will be useful in their descriptive and discursive power” (Stackman, Pinder, & Conner, 2000, p. 42).

Three Dimensions

One of the first groups of scholars to propose three polar cultural values was Barry, Child, and Bacon (1959), who distinguished Low food accumulation hunting and fishing societies from High food accumulation, agricultural, pastoral societies. According to the authors, their three categories reflect both economic and social organization at their basic levels. The categories (effective dimensions) are Individualistic – Conscientious, Assertive – Compliant, and Conservative – Venturesome (Triandis, 1972). The hunting-fishing peoples are typed as Individual, Assertive, and Venturesome (words beginning with linear letters), while agricultural-pastoral peoples are depicted as Conscientious, Compliant, and Conservative (words beginning with the rounded, open letter 'C').

Osgood (1965), proposed three salient, cultural universals that inform semantic space in cultures. He referred to these as orthogonal factors: Potency (such as strong-weak and hard-soft), Activity (such as active-passive and fast-slow), and Evaluative (such as good-bad and honest-dishonest). He then reduced these to two more primary factors which he termed Benevolence and Dynamism (Triandis, 1972).

The primary concerns or issues in working with three cultural constructs are: (1) whether one working with basic constructs; (2) whether one is working with behavioral dimensions; and (3) whether one is working with a combination of the two. The literature has several fine examples that organize ideas according to three categories, but only a few of these are expanded beyond the conceptual or theoretical model.

A couple of other early three-dimensional models include one by Inkeles and Levinson and another by Likert. Likert (1967) searched for a set of universal principles underlying behavior and culture which he expressed in terms of three fundamental variables: Causal (relational), Intervening (motive and action), and End-result (sales, costs and earnings). He also differentiated between two primary context in which these can operate in an environment of hierarchical pressure or according to supportive relationships (Kassem, 1976).

Inkeles and Levinson (1969) reviewed all the 20th century literature up to that time on national character or culture in the fields of anthropology, comparative psychology, and comparative sociology. They concluded that all societies face three kinds of problems: relations to authority, primary dilemmas or conflicts and ways of dealing with them, and conception of self. They divided the last problem into the individual's place relative to society and the concept of masculinity and femininity, and argued that these conditions were consistent across cultural boundaries. These subsequently provided the theoretical basis for Hofstede's four original dimensions (Hofstede & Peterson, 2000).

Harrison (1979) postulated that much of the conflict related to organiza-

tional change is essentially an ideological struggle, and in order to understand the nature of this struggle, he developed a conceptual framework derived in part from political science. He initially proposed a two-dimensional model with four non-exclusive types (introduced in the previous section), and then oriented this to a three-dimensional model related to three primary interests, including Security versus Deprivation (economic, political, and psychological), Opportunity for voluntary commitment to worthwhile goals, and Opportunity to pursue one's own growth independent of organizational goals.

Only a few researchers have tried to represent culture in a three-dimensional cubic model. Three such authors are Payne, Pugh, and Johnsen. The model proposed by Pugh (1976) looks at organizational culture according to three bipolar conditions: Structure which is unstructured – structured; Authority which is concentrated – dispersed; and Control which is line - impersonal. He divided Control and Authority in half along the theoretical mean, but then divided Structure into thirds for some unexplained reason. This creates a model with 12 sections or quadrants.

Johnsen (1995) posited three dimensions of strategic management: Project Organization (one project, a sequence of projects, or a connected project sequence), Creation of Energy, and the direction of Change (concentration, adjustment, or expansion). Kelly (1967) developed a causal attribution model suggesting people utilize information from three different sources when determining causal judgments (Fletcher & Ward, 1988). These are consensus, consistency, and distinctiveness. He then proposed that attributions will range along and internal - external dimension.

Payne (1996) believed that organizational climate could be used to measure culture. He initially considered two primary dimensions for expressing culture, including Strength of consensus and Pervasiveness of culture, but he recognized that pervasiveness also included the concept of psychological intensity. From this he generated a cube model to express the relative positional dimensionality of entities in three-dimensional space.

Payne's concept of using a cube model to depict culture spatially is appealing because it can locate organization according to cultural types in relative space. However, a question should be raised concerning the equality of the three dimensions. If the two original dimensions (A & B) were co-equal, then the three cannot be co-equal because B & C are actually derived from B. If A & B were originally 50% each, then dividing B into B & C should not diminish the relative importance, weight, or value of A. A second issue is whether B & C are dimensions, or else sub-dimensions of the original B construct.

Osgood and Schwartz both resolved the two-dimension/three-dimension dilemma by employing different conceptual terms for their two dimensional

constructs than for their three dimensional constructs. Schwartz (1992), developed a value survey with a Structure of Values in which ten values are arranged in a pie chart, arranged and explained according to two bipolar constructs on the two major axes: Openness to Change – Conservatism and Self-enhancement – Self–transcendence (Stackman et al, 2000). Schwartz then re-oriented these two to an Individualistic and Collectivistic dimension, so that he actually composed a three dimensional model.

Schwartz developed a second three-dimensional bipolar model consisting of Egalitarian – Hierarchy, Mastery – Harmony, and Embeddedness – Autonomy (Ralston et al, 1995). He then divided Autonomy into two parts: Intellectual autonomy which is creative, and Affective autonomy which is pleasure seeking. The seven values, which represent three dimensions, are positioned around a matrix of 57 national cultures (Sagiv & Schwartz, 2000). Obviously they do not function in or express three spatial dimensions. I have been unable to locate any indication as to how the two-construct model with ten values is related to the three-construct model with seven cultural values.

Deutsch (1975), proposed that interactional goals affect allocation rules, and suggested three primary cultural preferences: (1) Equality is preferred for enhancing enjoyable social relations; (2) Equity is preferred for enhancing productivity; and (3) Need is preferred for fostering personal development. The first two were confirmed by subsequent empirical work (Leung, 1988). There may be an opportunity to consider these three preferences not as alternatives but as concurrent integrative values, which together define a cultural typology.

Schein (1985) proposed a broad model of culture composed of three successive interrelated layers: (1) Basic Assumptions and premises are at the inner area or center, reflecting the preconscious notions of the relationship between man and nature, in a time-space orientation; (2) Ideology and Deep Values are in the middle area and reflect goals and paths of purposeful human action; and (3) While Cultural Manifestations and Artifacts are on the outside layer, reflecting language and social organization (Morosini, 1998).

Schein's ideas were expanded by Beyer, Hannah, and Milton (2000), who saw dimensions as the basic forces that produce the direction in which culture evolved, that is, values produces changes in the internal dynamics of the social system; artifacts address technological and physical change in the external environment; and assumptions relate to fortuitous or serendipitous historical events. They also organized about thirty social process models according to three conceptual labels: affective and cognitive processes, social interactions, and symbols and behaviors.

Boulding (1985) proposed three broad concepts that underlie all systems: Physical Integration (related to matter), Action Exchange (related to energy), and Knowledge or Threat (related to information). He understood all physical

systems to be informed by an interrelationship between these three broad concepts, which he claimed generate a hierarchy of complexity that informs major systemic structures. These three concepts are positioned at the corners of what he terms a Social Triangle onto which he positioned thirty various kinds of organization.

Adamopolous (1988) advocated three dimensions of social interaction: affiliation and positive social interaction, dominance and subordination, and intimacy and formality. The first relates to interpersonal orientation (particularistic – universalistic); the second relates to resource type (concrete – abstract); and the third to the resource exchange mode (giving – denying). The interaction of these differentiates eight interpersonal behaviors, which he clearly mapped or charted in three-dimensional model.

Hampden Turner & Trompenaars (1993) identified three sources of challenge: relationships with others, managing time and aging, and the external nature of the world. A later book by Trompenaars & Hampden-Turner (1998) identified three organizational dimensions: Communitarian - Independence (refers to social groups based on shared goals or embeddedness versus individual autonomous actions and benefits), Analyzing - Integrating (a preference for efficiency and segmenting phenomena versus dealing with patterns or relationships), and Commitment to Organization - Commitment to Friends. It is not certain that these two sets are in any way equivalent.

Meschi and Roger (1994) explained social effectiveness in International Joint Ventures (IJVs) according to three basic variables: Conflictual intensity, which they proposed is a dimension of organizational climate, and Organizational attachment and Organizational effort, which together reflect involvement. The larger the intensity of national culture, the lower the level of social effectiveness in IJVs.

Chen, Chen, and Meindl looked at cultural values from the perspective of organizational cooperation, which they defined as an "act that maximized the interest of the other" (1998, p. 287). Based on a review of the literature they identify three distinctive approaches or emphases to cooperation: (1) the Psychological motives or Cultural values approach that distinguishes between common and personal goals; (2) the Goal-Relations approach which considers the objective reality of social relations, and whether the goals of the actors are interdependent or competitive; and (3) the Behavioral approach, which relates to the coordination of individual actions. The authors explained this model in terms of "prisoner's dilemma," which suggests that it describes an approach to risk.

Zelger (1996), an Austrian social theorist working with linguistic gestalts, proposed three basic bipolar dimensions that define eight modes of experiencing life's situations. These can be used in reverse to disclose the dimensions that define situations. The three aspects are Holistic – Particularistic, General -

Specific (abstract versus concrete), and Internal – External (subjective self versus objective other).

Zhu (1999), a Chinese management scholar working in the UK, proposed a three-sphere model for conceptualizing culture called "*Wu Shi Ren*," derived from traditional Chinese thought and Confucian social philosophy. *Wu* relates to structure, cognition, and objective existence; *Shi* is the way of seeing or doing; and *Ren* encompasses the fundamental patterns of human relating.

Finally, Jones and Davis (2000) have developed a contingency perspective with which they identified three factors that affect the globalization of research and development (R&D): the type of activity and expectations, motivations, such as supply, demand, or other competitive pressures, and an organization's geographic orientation with regard to foreign R&D activity.

Other Construct Models

Maruyama (1981, 1994) proposed four epistemological metatypes for expressing culture, termed H I G S. H is homogeneous, hierarchical, and classifying, while I, G, and S are heterogeneous to varying degrees. I is subjective, isolationist, and randomizing. G and S are both contextual, but G is cogenerative and changeable, whereas S is cooperative and stable. The four metatypes appear to be the product of two bipolar dimensions which he expressed with the graphic symbols of four letters. In a two-dimension matrix, the linear, straight, and rigid letters (H and I) are on the left, while the curvilinear, rounded letters (G and S) are on the right. The multiple element letters (H and G) are on the top, while the single element letters (I and S) are on the bottom. Maruyama (1981) asserted that the basic problem of design is governed by three universal principles: Space which governs the hierarchy (or importance) of the elements; Objects (in the space) that create unity through (their relationships and by) repetition and similarity; and Mass which reflects the main theme in sub-themes. It could be interesting to consider these three conditions in a similar three value theoretical framework.

Schwaninger (1997) has created a model designed to convey an integrative systems methodology (ISM) which is heuristic in helping actors achieve requisite variety in dealing with complex issues. His Eight Polarities Framework is based on four pairs of polar and complementary opposites: Structuralist – Discursive (approach), Objectivist – Subjectivist (worldview), Quantitative – Qualitative (modeling), and Conceptual – Communicational (rationality). If these eight are dimensions they would define sixteen categories, but if they are the categories they would be based on three bipolar constructs. The way Schwaninger related Systemic modeling to the hermeneutic methodology could also provide insight into the Binary Culture Model:

Hermeneutic methodologies adopt a subjectivist worldview, emphasizing

individual perceptions and interpretations of the world, and the interaction between multiple perspectives by which consensual domains are negotiated and (new) shared realities are constructed. The rationale underlying these methodologies is essentially communicational, but also discursive and political. At the level of modeling the hermeneutic methodologies rely on qualitative aspects, and thereby primarily on verbal expression. (p.271)

The Globe research is based on nine bipolar dimensions: individual-collective, future orientation (close or far), humane organization, organizational collectivism, commitment, gender egalitarianism, uncertainty avoidance, and performance orientation (Dickson, Aditya, & Chhokar, 2000). The authors noted that these dimensions do not (necessarily) "span the entire constructual domain of organizational culture" (p. 454).

According to Weber (2000), given "the subjective percpetual nature of culture, there may be an infinite variety of cultural dimensions" (316). He assembled seven measures of culture that he said were used successfully in other studies to capture the essential characteristics of culture: top management contact, integration-lateral interdependence, autonomy and decision making, performance orientation (which GLOBE discarded), reward orientation, risk taking, innovation, and action orientation.

Researchers such as Cooke (Cooke & Lafferty, 1987), has developed comprehensive models that also express a utilitarian interest in two basic constructs. Cooke's Organization Cultural Inventory (OCI), uses two bipolar constructs, including Needs (security – satisfaction) and Orientation (task – people), as the basis for arranging a pie chart of 12 sets of behavioral norms: humanistic-encouraging, affiliative, approval, conventional, dependent; avoidance, oppositional, power, competitive, perfectionistic, achievement, and self-actualizing. These were grouped according to three organizational styles that should not be viewed or construed as three cultural dimensions: aggressive/ defensive, passive/defensive, and constructive (Cooke & Szumal, 2000).

Profiling Organizational Culture

One of the objectives of this paper is to demonstrate the usefulness of the Binary Model for correlating the various measures, constructs, and dimensions in the above review to each other, and to do so in a way that is meaningful or makes sense. The Binary Model is developed, the relationship to the Chinese archetypes is established, and the three basic dimensions are identified (Q, C, and S). Following this the measures in the sixteen models or surveys are correlated conceptually to one of the three basic dimensions or to one of the three primary Interaction Effects (CS, QS, and QC). It seems that a few measures correlate to what are best termed "secondary interaction effects."

The typology of the existential German psychologist Hans Binswanger

(Needleman, 1963) is useful because his three realms of human relating correspond closely with the *I Ching* and the three BCM dimensions. Umwelt, which is the "environment or world of objective existence," relates to Q; Mitwelt, which is the "social world of mankind," relates to C; and Eigenwelt, which is the "personal world or world of self," relates to S.

Q Dimension – Earth, Person to World: this is the relating pattern of people within an organization or society at-large.

C Dimension – Human, Person to Person: this is the relating pattern of persons to each to other. It tends to lean either to being more self-serving or more humanistic.

S Dimension – Heaven, Person to Self: this is the internal relating patter, which influences how people's concept of "self" can influences or determine their decision choices

CS Interaction Effect – Conditions Q: this seems to relate to primary cognitive modeling which affects the form of one's commitment or how it is expressed.

QS Interaction Effect – Conditions C: this relates to a person's conceptual framework or attitude, and an organization's goal orientation.

QC Interaction Effect – Conditions S: this relates to the way of doing or the orientation.

There are Secondary Effects that express more complex sub-groupings. For example, the triplets that cluster according to a majority of 1s or 0s (111, 110, 101, 011, versus 000, 001, 010, 100), express conditions such as long-term versus short-term planning. Triplets with an odd number of 1s or an odd number of 0s (111, 100, 010, 001, versus 000, 011, 101, 110), relate to how one conceives of oneself relative to or independent of the organization or where applicable, the society-at-large. There are a number of so-called dimensions that appear to be related to "secondary effects," but these are not explained in this paper.

The Q Dimension

Inkeles & Levinson (1969)	Relations to Authority
Barry, Child, & Bacon (1959)	Individualistic - Conscientious
Pugh (1976)	Authority as concentrated - dispersed
Adamopolous (1988)	Resource Type dominance subordination and concrete - abstract
Schwartz (1992)	Individualistic - Collectivistic
Schwartz (1995)	Egalitarian - Hierarchy
Hampden-Turner & Trompenaars (1998)	Independence - Communitarian or autonomous actions - Embeddedness & shared goals
Zhu (1999)	*Ren* (humanism) or patterns of human relating
Hofstede (1980)	Power Distance and Individualism-Collectivism
House (2000)	Power Distance and Individualism (borrowed from Hofstede)

The CS Interaction Effect	These condition Q (C & S with same versus different binary values)
Hampden-Turner & Trompenaars (1998)	Form of Commitment: duty to friends - duty to organization
Johnsen (1995)	Creation of Energy - Utilization of energy
Schwaninger (1997)	Modeling: quantitative - qualitative (doing versus assessing?)
The C Dimension	
Barry, Child, & Bacon (1959)	Assertive - Compliant
Inkeles & Levinson (1969)	Conception of Self or masculinity and femininity
Harrison (1979)	Voluntary commitment to worthwhile goals
Pugh (1976)	Control, which is impersonal versus line
Adamopolous (1988)	Interpersonal Orientation: particularistic - universalistic & positive social interaction
Schwartz (1992)	Self-enhancement - Self–transcendence
Schwartz (1995)	Mastery - Harmony
Hampden-Turner & Trompenaars (1998)	Form of Commitment which is duty to organization versus duty to friends
Zhu (1999)	*Shi* (behavior) way of seeing or doing
Hofstede (1980)	Masculine-Feminine
House (2000)	Performance versus Humane Orientation, Low Humane Orientation versus Rewarding fairness and Kindness, and Assertiveness and dominance versus Non-assertive
The QS Interaction Effect	These condition C (Q & S with same versus different binary Values)
Johnsen (1995)	Direction of Change concentration - expansion
Schwartz (1995)	Autonomy - Embeddedness
Schwaninger (1997)	Rationality: conceptual - communicational
The S Dimension	
Barry, Child, & Bacon (1959)	Conservative - Venturesome
Pugh (1976)	Structure as structured - unstructured
Maruyama (1981)	Form, quality, rounded and flexible (GS) or direct and rigid or fixed (HI)
Cooke (1987)	Needs: security – satisfaction
Adamopolous (1988)	Resource Exchange Mode: formality - intimacy or denying - giving
Schwartz (1992)	Conservatism - Openness to Change
Zhu (1999)	*Wu* (structure & cognition) objective existence
Hofstede (1980)	Uncertainty Avoidance
Schwaninger (1997)	Approach structural - discursive
House (2000)	Uncertainty Avoidance; Organizational Collectivism
The QC Interaction Effect	These condition S (Q & C with same versus different binary values)
Maruyama (1981)	Content quantity: stable single - changeable multiple (SI - G

	H)
Morgan (1986)	Attempting to satisfy one's own concerns: assertive-unassertive
Morgan (1986)	Attempting to satisfy the concerns of others: uncooperative-cooperative
Johnsen (1995)	Project Organization: one project - a sequence of projects
Schwaninger (1997)	Worldview: subjective - objective
House (2000)	Future Orientation short-long

Conclusion

The notion of using a three-dimensional model for depicting culture accords with the majority of the existing models proposed by scholars in organizational behavior and social psychology. It is also the highest dimensional model that can be easily understood. The usefulness of the Binary Model is based on (1) the use of three values with binary equivalence, (2) the identification of dimensions arranged in a specific sequence or order, (3) a typology of eight cultural types or categories, (4) a correspondence with Chinese philosophy, that also provides the model with descriptive qualities, and (5) correlation to Western cultural models, dimensions, and survey.

The three BCM dimensions are simplified in this way: Qualitative-Quantitative relates to the nature of Social Organization which is bureaucratic and hierarchical (0), or democratic and autonomous (1); Cooperative-Competitive relates to Goal Orientation, which is relational and process-oriented (0), or self-enhancing and end result directed (1); and Spontaneous-Systematic relates to the attitude toward unpredictability, which is flexible and open to change (0), or structured and conservative (1). This understanding and approach make it possible to generate thumbnail cultural profiles for organizations that are relatively accurate and easy to do, and which can be used by executives and managers in cross-cultural collaborative ventures for initiating a cultural discussion. By referencing the different sets of dimensions to the Binary Model, we can see the ways in which they correlate to each other, and how they correspond to the Chinese trigram system.

The benefits of such a discussion are that: (1) organizations will give serious thought and consideration to the subject of culture; (2) it provides a platform for two organizations to discuss the subject of cultural in light of their cultural similarities and differences; (3) it does not involve the disclosure of proprietary information; and (4) it provides an opportunity to build mutual trust, understanding, and confidence.

As a result of using the BCM, both sides can understand cultural values in each other's terms and adopt each other's frames-of-reference. This means that parties from different sides of the globe (such as East Asian and the West), and with different organizational cultures, can use the Binary Model as a frame-of-

reference to understand their own and each other's cultures, in their own cultural terms.

Notes

1. The term trigram was coined by the 19th century English sinologist, James Legge.
2. Probably compiled in the 04th century (4th century BC) during the Warring States period
3. There are eight ways that three *yin* and *yang* lines can be combined

References

Abramson, N. R., Keating, R. J., & Lane, H. W. (1996). Cross-national cognitive process differences. *Management International Review*, *34*, 123-147.

Adamopolous, J. (1988). Interpersonal behavior: cross-cultural and historical Perspectives. In M. H. Bond (Ed.), *The cross-cultural challenge to social psychology*. (pp. 196-207). London: Sage.

Askanasy, N. M., Broadfoot, L. E., & Falkus, S. (2000). Questionnaire measures of organizational culture. In N. M. Ashkanasy, C. P. M., Wilderom, & M. F. Peterson (Eds.), *Handbook of Organizational Culture & Climate* (pp. 131-145). Thousand Oaks, CA.: Sage.

Ashkanasy, N. M., Wilderom, C. P. M., & Peterson, M. F. (2000). *Handbook of organizational culture & climate.* Thousand Oaks, CA.: Sage.

Barry, H., Child, I., & Bacon, M. (1959). Relations of child training to subsistence economy. *American Anthropologist*, *61*, 51-63.

Beyer, J. M., Hannah, D. R., & Milton, L. P. (2000). Ties that bind: culture and attachments in organizations. In N. M. Ashkanasy, C. P. M. Wilderom, & M. F. Peterson (Eds.), *Handbook of organizational culture and climate* (pp. 323-338). Thousand Oaks, CA: Sage.

Bond, M. H. (1997). Adding value to the cross-cultural study of organizational behavior. In P. C. Earley & M. Erez (Eds.), *New perspectives on international industrial/organizational psychology* (pp. 256-275). San Francisco: New Lexington Press.

Bond, M. H. (1988). *The cross-cultural challenge to social psychology*. London: Sage.

Boulding, K. E. (1985). *The world as a total system*. Beverly Hills, CA: Sage

Chen, C. C., Chen, X. P., & Meindl, J. R. (1998). How can cooperation be

fostered: the cultural effects of individualism-collectivism. *Academy of Management Review*, Vol. 23. No.2, 285-304.

Cooke, R. A. & Lafferty, J. C. (1987). *Organizational culture inventory*. Plymouth, MI: Human Synergistics.

Cooke, R. A. & Szumal, J. L. (2000). Using the organizational culture inventory to understand the operating cultures of organizations. In N. M. Ashkanasy, C. P. M. Wilderom, & M.F. Peterson (Eds.), *Handbook of organizational culture and climate* (pp. 147-162). Thousand Oaks, CA.: Sage.

Deutsch, M. (1975). Equity, equality, and need: what determined which value will be used as the basis of distributive justice. *Journal of Social Issues*, 31 137-149.

Dickson, M. W., Aditya, R. N., & Chhokar, J. S. (2000). Definition and interpretation in cross-cultrual organizational research: some pointers from the GLOBE research program. In N. M. Ashkanasy, C. P. M. Wilderom, & M. F. Peterson (Eds.), *Handbook of organizational culture and climate* (pp. 447-464). Thousand Oaks, CA: Sage.

Earley, P. C., & Erez, M. (1997). *New perspectives on international industrial/ organizational psychology*. San Francisco: New Lexington Press (Jossey-Bass).

Glaister, K. W. & Buckley, P. J. (1999). Performance relationships in UK international alliances. *Management International Review* (Vol. 39, 1999/2, pp. 123-147).

Hampden-Turner, C., & Trompenaars, A. (1993), *The seven cultures of capitalism*. Garden City, NY: Doubleday.

Harrison, R. (1979). Understanding your organization's character. *Harvard Business Review*, May-June 1972 pp.119-128.

Hofstede, G. (1980). *Culture's consequences: International differences in work-related values.* Beverly Hills, CA*:* Sage.

Hofstede, G. (1991). *Cultures and organizations: Software of the mind*. New York, McGraw-Hill.

Hofstede, G. & Peterson, M. F. (2000). Culture: national values and organizational practices. In N. M. Ashkanasy, C. P. M. Wilderom, & M. F. Peterson (Eds.), *Handbook of organizational culture and climate* (pp. 401-415). Thousand Oaks, CA: Sage.

Inkeles, A. & Levinson, D. J. (1969). National character: the study of modal personality and sociocultural systems. In G. Lindzey & E. Aronson (Eds.), *The handbook of social psychology*, (Vol. 4, pp. 418-506). Reading, MA: Addison-Wesley.

James, L. R., Mulaik, S. A., & Brett, J. M. (1982). *Causal analysis: Assumptions, models, and data*. Thousand Oaks, CA: Sage

Johnsen, E, (1995). *Strategisk ABCD* (exerpted in translation from Strategisk

analyse og syntese, en kvalitativ metod, 1993). Copenhagen: Handelshojskolens Forlag.

Jones, G. K. & Davis, H. J. (2000). Implications of national culture on the location of global R&D. *Management International Review* (Vol. 40, pp. 10-40).

Kassem, M. S. (1976). European versus American organization theories. In G. Hofstede & M.S. Kassem (Eds.), *European contributions to organization theory* (pp. 1-17). Amsterdam, The Netherlands: Van Gorcum.

Kutschker, M. & Baurle, I. (1997). Three + One: Multidimensional strategy of internationalization. *Management International Review* (Vol. 2, pp. 103-125).

Leung, K. (1988). Theoretical advances in justice behavior: some cross-cultural inputs. In M. H. Bond (Ed.), *The cross-cultural challenge to social psychology*. (pp. 218-229).London: Sage.

Likert, R. (1967). *The human organization.* New York: McGraw Hill.

Malekzadeh, A. R. & Nahavandi, A. (1988). Acculturation in mergers and acquisitions, *Academy of Management Review*, (Vol. 13-1, pp. 79-90).

Maruyama, M., (1981). Mindscapes: meta-principles in environmental design. *Garten + Landschaft* , 10/81 (pp 805-815).

Maruyama, M. (1994). *Mindscapes in Management*, Hampshire, UK: Dartmouth.

Meschi, P-X, & Roger, A. 1994. Cultural context and social effectiveness in international joint ventures. *Management International Review*, (Vol. 34, pp. 197-215).

Morosoni, P. (1998). *Managing cultural differences*. New York: Pergamon

Needleman, J. (1963). *Being-in-the-world: Selected papers of Ludwig Binswaanger*. New York: Basic Books.

Osgood, C. E. (1965). Cross-cultural comparability in attitude measurements via multi-lingual semantic differentials. In I. D. Steiner & M. Fishbein (Eds.), *Current studies in social psychology*. Chicago: Holt, Reinhart, & Winston, 1965, 95-107.

Payne, R. L. (1996). The characteristics of organizations, In P. B. Warr (Ed.), *Psychology at work* (4th ed.) Harmondsworth: Penguin.

Price-Williams, (1969). *Cross-cultural studies*. London & New York: Penguin.

Pugh, D. (1976). The Aston approach to the study of organizations. In G. Hofstede & M. S. Kassem (Eds.), *European contributions to organization theory*, (pp. 62-78). Amsterdam, The Netherlands: Van Gorcum.

Ralston, D. A., Holt, D. H., Terpstra, R. H., & Yu, K. C. (1995). *The impact of national culture and economic ideology on managerial work values.* (Academy of Management Meeting, Vancouver 1995) (discussion paper).

Sagiv, L., & Schwartz, S. H. (2000). A new look at national culture. In N. M.

Ashkanasy, C. P. M. Wilderom, & M. F. Peterson (Eds.), *Handbook of organizational culture and climate* (pp. 417-435). Thousand Oaks, CA: Sage.

Schein, E. H. (1985). *Organization, culture, and leadership*. San Francisco: Jossey-Bass.

Schein, E. H. (1992). *Organizational culture and leadership: a dynamic view*. (2nd ed.). San Francisco: Jossey-Bass.

Schwaninger, M. (1997). *Combining systems methods for coping with complexity: a systemic framework*. (invited paper), EURO/INFORMS-97 (pp. 267-293). Barcelona.

Schwartz, S. H. (1992). Universals in the content and structure of values: In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 1-65). San Diego, CA: Academic Press.

Stackman, R. W., Pinder, C. C., & Conner, P. E. (2000). Values Lost: redirecting research on values in the workplace. In N. M. Ashkanasy, C. P. M. Wilderom, & M. F. Peterson (Eds.), *Handbook of organizational culture and climate* (pp. 37-54). Thousand Oaks, CA.: Sage.

Triandis, H. C. (1972). *The analysis of subjective culture*. New York: Wiley

Trompenaars, F. & Hampden-Turner, C. (1998). *Riding the waves of culture* (2nd ed.). New York: McGraw-Hill.

Weber, Y. (2000). Measuring cultural fit in mergers and acquisitions. In N.M. Ashkanasy, C. P. M. Wilderom, & M. F. Peterson (Eds.), *Handbook of organizational culture and climate* (pp. 309-319). Thousand Oaks, CA: Sage.

Wilhelm, R., translator (1950). *The I Ching or book of changes*. C. F. Baynes (translator from German to English). Princeton, NJ: Princeton University Press.

Zelger, J. (1996). *Linguistic knowledge processing* (invited paper #42). International Conference on Conceptual Knowledge Processing. Innsbruck: Institute for Philosophy.

Zhu, Z. (1999). WSR: *A systems approach for information systems development.* International Conference on decision-modeling and management philosophy: Dublin.