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# A Psychological Perspective on Cultural Difference: Epistemological Heterogeneity and Individual Heterogeneity Across Cultures

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# **A PSYCHOLOGICAL PERSPECTIVE ON CULTURAL DIFFERENCE: EPISTEMOLOGICAL HETEROGENEITY AND INDIVIDUAL HETEROGENEITY ACROSS CULTURES**

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## **Abstract**

Most cross-cultural studies of management have been sociological type. Conventional view of cultures and sociological perspective has resulted in the assumption that within each culture members are homogeneous in their psychological make-up, logic, and perspective. Although researchers have reminded us that people vary on pivotal psychological dimensions, both on a between-country and within-country basis, these reminders were not heeded. Maruyama's theories and research on epistemological heterogeneity, and individual heterogeneity across cultures, or as it is called, mindscape, were the exception. This paper elaborates on epistemological heterogeneity and individual heterogeneity across cultures. It suggests that researchers in international management could use this line of inquiry to expand upon our understanding of effective managerial practices dealing with cultural differences among people.

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**Keywords:** Epistemological and individual heterogeneity across cultures

## **Introduction**

Sometimes, in the haste of reaching our destination, we may not realize that we have taken a slightly skewed path. When the journey is too long and we continue on the path so taken, ultimately, no matter how carefully we travel, we will end up in a totally different place than we intended. This may happen in pursuit of knowledge and discovery. In fact this has happened in cross-cultural studies of management.

Earlier, scholars and researchers had identified 22 cultural dimensions (Osland and Bird, 2000). Hofstede (e.g.1984, 2001), in his seminal studies, popularized four of these dimensions. He later on expanded

these dimensions to five (Hofstede & Bond, 1988). His research opened up a line of inquiry into different aspects of international management that has inspired thousands of empirical studies (Kirkman, Lowe & Gibson, 2006) by others who followed his lead. Scholars examining this line of research, however, reminded us of its shortcomings, that there is within-country cultural heterogeneity, (Au, 1999; Bock, 1988; McSweeney, 2002; Sivakumar and Nakata, 2001; Wallace, 1988), or intra-cultural variations (ICV) (Au, 1999), that should be considered. ICV was defined as the population distribution of a characteristic within a culture (Au, 1999, 2000; Au & Cheung, 2004). According to Au (2000: 218-220), the reasons for the existence of ICV are demographic, cultural values, and institutional explanations. Even in today's globalized business, research on organizational culture assumes that all organizations, and indirectly their employees, have similar characteristics, no matter their cultural affiliations (e.g. Sarros, Gray, Densten and Cooper, 2005).

Kirkman et al. (2006: 313) pointed out the limitation of assuming homogeneity in cultures and asserted that "the relatively low amount of variance explained by the cultural values in many [sociologically oriented] studies underscores the existence of the many other forces besides culture that determine the behavior and attitudes of individuals in societies." Also, Palich, Hom, and Griffeth's (1995) findings highlighted the shortcoming of cultural dimensions that were applied to all individuals similarly. They showed that only 2.7% of the person-to-person variance in employee commitment could be attributed to Hofstede's cultural dimensions. Further evidence is provided by Steel and Taras (2010: 211), who used a multi-level multivariate meta-analysis of 508 studies, and found that up to 90% of the variance in cultural values resided within the countries. On that basis, they opined that national averages poorly represent specific individuals. Other scholars have expressed similar position that the conclusion drawn from the data at one level of analysis should not be applied to another level (e.g. Bock, 1988; Bond, 2002; Hofstede, 1980a; Wallace, 1970; Williams and O'Reilly, 1988).

Brockner (2005: 355) asserted "people vary on pivotal psychological dimensions both on a between-country and within-country basis". These reminders were no match for the stampede toward Hofstede's framework, as the title of a paper by Sivakumar and Nakata (2001) suggested. The citation index of Harzing "Publish or Perish" indicated over 54,000 citations for Hofstede's works (Tung & Verbeke, 2010). These works were the basis for numerous major cross-cultural studies. Almost all cross-cultural studies followed the footsteps of Hofstede. Even GLOBE studies (House, et al., 2004), that expanded the cross-cultural conceptual framework dealing with various management issues, followed the same path. "Although substantial

within-country variations and changes have been well documented, these issues have been rarely, and usually indirectly, addressed in mainstream comparative studies (Steel and Taras, 2010: 211).” It is a simplistic view to assume homogeneity among cultural members. People within cultures not only may not have the same values. The relative importance or prominence they attach to different values makes them different (Kabanoff and Daly, 2002: 91).

Individuals can possess dual cultural identities (e.g. Benet-Martinez, et al., 2002), and apply different cultural meaning systems (cultural frame switching) in response to situational cues, beside the existence of intra-cultural variation or heterogeneity. Hong et al. (2000), for example, found that Chinese American biculturals possess both East Asian and Western cultural meaning systems. They can independently activate them when present with culturally relevant icons or primes. This phenomenon may not be a significant factor for cultures or countries without a large immigrant population or significant multi-ethnic groups. The strategies used by immigrants to manage their cultural identities, however, such as assimilation, integration, marginalization, separation (Berry, 1980, 1984), and cultural frame switching (Benet-Martinez, et al., 2002; Hong, et al., 2000), are very similar to those suggested by EH and IHAC in the form of mindscape theory.

By and large, however, these issues did not receive much attention. While intuitively it was evident that one size did not fit all, the studies that were based on cultural dimensions appeared to suggest that within each culture people were more or less similar. They, however, acknowledged cultural difference based on programming of the minds of the individuals that differentiated one group of people from others. Individual differences among people were ignored, with this line of reasoning. Most cross-cultural studies engaged in finding differences between cultures on that basis. They found, of course, plenty of evidence indicating that cultures were different, particularly in regards to managerial concepts, such as motivation, leadership, negotiation, etc. They found that, the sample of people under investigation in these cultures, based on these dimensions, were different from those in other cultures.

A different line of research spanning more than 50 years, both theoretical and empirical, by Maruyama (e.g. 1961, 1963, 1974a, 1974b, 1978, 1980, 1982, 1986, 1993, 1996, 2004), however, shined a new light on this discourse by identifying epistemological<sup>49</sup> heterogeneity (EH), and individual heterogeneity across cultures (IHAC) and introduced the concept of mindscape. Unlike other disciplines (e.g. Boje, 2004; Caley & Sawada,

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<sup>49</sup> Epistemology is from two Greek words. Episteme, means ‘knowledge, understating’, and Logos which means ‘study of’.

2000; Dockens, 2009; Gammak, 2002; Hatt, 2009; Hentschel & Sumbadze, 2002; Noe & Alroe, 2005; Noe, Alroe & Langvad, 2005, 2008; Yolles & Fink, 2009), international management literature, for the most part, has not utilized them.

Epistemological heterogeneity (EH) refers to the ‘source of knowledge’, the variations in sense perception and emotion, or basically variations among people in relating to clues from the environment. In effect EH is about differences in reasoning, cognition, perception, conceptualization and decision making. Individual heterogeneity across cultures (IHAC) is the acknowledgment that there are variations among individuals, especially in areas that are culturally based. “Epistemological types are heterogeneous not only among cultures but among individuals in each society” (Maruyama, 1991b, 255). Both EH and IHAC are subsumed under the concept of mindscape. Mindscape was used to conceptually describe epistemological types that are the basis for heterogeneity among individuals. Mindscape was defined as “.... a structure of reasoning, cognition, perception, conceptualization ..... that may vary from one individual, profession, culture, or social group to another” (Maruyama, 1980: 591). It proposes the following:

- (a) Individual heterogeneity exists in each culture [EH]. Cultural members are diverse not only physically, but more importantly, psychologically. They possess a different mentality, logic and perceptual characteristics. There is more diversity in thinking and logic among them than apparent similarity. They formulate their own interpretation of cultural norms and expectations.
- (b) Any individual type found in a culture can be found in other cultures, i.e. the individual types exist across cultures and they are not confined within a culture [IHAC]. There are individuals in each culture who have similarities in thinking and logic with some members of other cultures. Some Japanese, for example, may be more individualistic and may psychologically be similar to a typical stereotyped American. As Nicholson (2005: 265), after spending one week with a remote Maasai tribe at a Northern part of Kenya, wrote “Personally, I can say that some of the Maasai with whom I met and talked were people I could relate to more easily than some people in my own home community. That is a matter of social-psychological chemistry”
- (c) Cultural differences consist in the way one type becomes dominant and suppresses, transforms, ignores or utilizes non-dominant types [EH & IHAC]. There are various mindscape types among members of all cultures. As one type, for various reasons, becomes dominant, others find it more convenient and advantageous

to go along with that position and to act as if they too belong to the dominant type. Otherwise, physically have to leave. Those who succumb to this domination use various strategies to disguise their differences. This gives the appearance of cultural homogeneity where there is actually heterogeneity.

Maruyama applied EH and IHAC to many areas of social sciences such as: academic diversity (1992b), communication (1963, 1972), science theories (1963, 1978, 1980), sociology (1978, 1991b), international borrowing (1989), pedagogy (1989b, 1994c), cultural expectation (1991a), aesthetics (1992a), international business (1992c), alternative concepts of management (1984), environmental design/architecture (1981), and statistics (1999), among others. It is noteworthy that three of the four mindscape types identified by Maruyama were almost identical to those models that were identified by Harvey (1966) independently.

Based on the EH and IHAC views, cultures are not just collectives of homogenously programmed individuals for whom certain managerial practices are appropriate. These views also would not consider individuals as shapeless entities programmed by the cultural socialization processes, but epistemologically heterogeneous persons with the mindscapes that are manifested in all cultures. If we ascribe to these views, the need for venturing into a new line of research on epistemological heterogeneity (EH) and individual heterogeneity across cultures (IHAC) becomes evident.

This paper intends to draw attention to mindscape, EH and IHAC, and hopefully initiate awareness and interest in this line of research. It suggests that researchers in international management could use this line of inquiry to expand upon our understanding of effective managerial practices dealing with individuals in different cultures. Maruyama's mindscape theories are philosophical, conceptual, qualitative, and small sample-size studies from Japan and European countries. The present author is undertaking a large scale, multi-country/culture study of mindscape, from different geographical areas. In the meantime, a separate large scale, independent and parallel study by Harvey (Harvey et al. 1961, Harvey, 1966) could be used to corroborate Maruyama's theories. These studies are statistically tested on large samples and confirm the validity of the instrument used.

The following presents Harvey's studies, and then elaborates on Maruyama's. The paper concludes by suggesting various applications of 'mindscape' and the consequences of ignoring EH and IHAC.

### **Harvey's Four Systems**

Harvey presented his view in social psychology and tested them through extensive statistical analysis. According to Harvey, all systems,

physical as well as conceptual, are assumed to evolve through the process of differentiation and integration. It seems that conceptual systems are organized through a saccadic process, very similar to visual scanning. To form conceptual systems from the observations of environmental phenomenon, it appears that people go through the process saccadically (Carmichael and Dearborn, 1948; Cherry, 1957). The suggestion of the saccadic process is further based on the assumption that differentiation, the precursor to integration, depends on some degree of intra-system conflict to remain a closed system of a highly unarticulated state, or to be open and allow differentiation and integration to form. This is within the range of concreteness-abstractness that has intra-system properties of clarity-ambiguity, compartmentalization-interrelatedness, and centrality-peripherality.

Variations occur in important dimensions of the system, out of the process of differentiation and integration. One of these variations is concreteness-abstractness (Harvey, Hunt and Schroder, 1961; Harvey, 1966). “The more concrete end of the dimension represents the state of minimal differentiation within the concepts and little or no integration among them. The more abstract end of the continuum is represented by high differentiation and integration across a wide range of domains” (Harvey, 1966: 42).

Harvey (1966) deduced four major levels of concreteness-abstractness from extensive theoretical and empirical bases. The four major levels and admixture of them evolve in individuals through the experience and socialization process, and “from training history in his [/her] environment, especially that part of his [/her] world concerned with values and power relationship (Harvey, 1966: 44)”. These four basic levels were treated as different conceptual systems representing nodal points, along a continuous dimension of a hypothetical range from lesser to greater abstractness. Along this dimension there are “in-between systems” that are admixtures of the more proximal major systems.

Harvey (1966) administered psychological tests to university students. His analysis of data from 1400 individuals’ responses to an opinion survey, TIB test (This I Believe), indicated that about 30% of first-year university students were of system 1 and 15% belonged to system 2, approximately 20% to system 3, and about 7% to system 4. The rest were of the mixed types. He proposed that the four conceptual systems evolve from the early experiences in life that are based on a learning process shepherded by parents.

Several studies have found TIB test to have high predictive and construct validity (Harvey, 1966: 46). In all his studies, system 1 and 4 representatives were completely different as they should according to the

theory. Harvey (1966; 46-61) extensively discussed the differences and characteristics of the 4 systems. Some of the more important determinants of subjects' classification included the absolutism, dependency on external authorities, frequency of trite and normative statements, degree of ethnocentrism, acceptance of socially approved modes of behavior, and apparent simplicity-complexity of the interpretations of the world. On construct validity, he examined subjects on many dimensions including intelligence, cognitive complexity, religion, authoritarianism, dogmatism, left and right opinionation, rigidity, subscale from Edwards Personal Preference Schedule, self-causality, and machiavellianism. Three of the four Systems match those of Maruyama' while the fourth one is different.

Table 1 summarizes simplified major characteristics of the four systems. Table 2 identifies these systems on authoritarianism and dogmatism dimensions. System 1 individuals have been found to score the highest on the F-Scale, followed by Systems 3, 2, and 4, respectively. System 1 is high on both dogmatism and authoritarianism, and System 4 is the opposite. System 2 is high on dogmatism and low on authoritarianism. Finally, System 3 is high on authoritarianism and low on dogmatism. According to Harvey (1966:45) "System 1 functioning is highly related to the syndrome of authoritarianism, with System 1 individuals scoring the highest of the four systems on the F-Scale.... System 2 functioning, ... have been found to score next to the lowest of the four major systems on the F-Scale. System 3 individuals score next to the highest on the F-Scale. ... On Rokeach's Dogmatism Scale (Rokeach, 1960), ... System 1 subjects scored the highest, followed by System 2, 3, and 4 in that order." (Harvey, 1966: 49).

>Place Tables 1 & 2 about here <

These systems are very much similar to the Maruyama's (1965) mindscape types that he developed independently. More specifically, as Table 3 indicates, types H, I, and G of Maruyama's mindscapes are almost the same as Systems 1, 2 and 4 of Harvey's, respectively. Maruyama's mindscapes, however, were presented without any reference to their origination. Maruyama's mindscape research elaborates on heterogeneity within cultures, and is in contrast to other studies (e.g. Hofstede, 1998) that unintentionally have given the impression that heterogeneity exists only between cultures.

## **Mindscales**

Hofstede (1980, 1997, 2001) and others who used his sociological methodology and approach considered a few cultural dimensions from around twenty two (Osland and Bird, 2000) as significant, and examined various managerial practices along these dimensions. Numerous studies were conducted by other scholars on various aspects of international management



using these dimensions. Later on, an expanded and modified version of the same was used in GLOBE studies (House et al., 2004). These dimensions were proposed to differentiate managerial practices in different cultures. And indeed the proposed differences were observed in many of these studies. It was assumed that we have found an answer to some of the cultural problems of international management. We realized that the management theories proposed by the U.S.-based scholars were not necessarily universal. While this new understanding was correct, it's method of inquiry, as it will be argued, contributed to a number of misunderstandings. This line inquiry was not seriously challenged for long.

Sociological view of cultures has resulted in the assumption that within each culture members are almost homogeneous in mentality, logic, and the view of the environment. Cultural variations, however, were acknowledged. The variations between cultures have been attributed to the programming of the minds of individuals that distinguished one group of people from another (Hofstede, 1971, 1980, 1997, 2001, Hofstede & Bond, 1988). Very little elaboration has been made on psychological attributes of individuals in the context of cultural differences. There were a few exceptions (e.g. Black and Gregersen, 1999; Black, Mendenhall and Oddou, 1991; Mendenhall and Oddou, 1985; Molinski, 2007) that focused on individuals but discussed the difficulties that individuals experience in adapting to new environment. Also, physiologically based psychological differences (innate) among individuals were not discussed. In effect, many studies that were conducted in the tradition of Hofstede and GLOBE committed "ecological fallacy", which is attributing cultural level characteristics and relationships to individuals within cultures (Robinson, 1950, House and Hanges, 2004). While "ecological fallacy" has been known for decades (e.g. Thorndike, 1939), in an examination of 121 instruments designed to measure culture, Taras, Roney and Steel (2009: 366) found that most had generalized relationships that were found at one level and attributed them to other levels. Brewer and Venaik (2012), in an extensive review of major articles published in top tier business administration journals found "ecological fallacy" common not only among studies that used Hofstede and House et al.'s dimensions, but also by these authors themselves.

Generally, it is assumed that the "programming of the minds" is done to the individuals who have similar raw materials physiologically and psychologically. Therefore, such programming produces homogeneous members, which gives each culture its assumed characteristics, such as low power distance, low uncertainty avoidance, moderate masculinity and high individualism for North Americans (e.g. Hofstede, 1980a, 1984, 2001). However, over more than 50 years, empirical and theoretical evidences (e.g.

Camara, 1975; Harvey, 1966; Mauyama, 1961, 1963, 1965, 1974a, 1974b, 1978, 1982, 1986, 1993; Maruyama, Zankovsky and Fatehi, 1995) have been accumulating that indicate there are many individual epistemological types, some of which occur more frequently.

Cultural differences exist as some logical type becomes dominant and influences individuals of other types. It is needless to say that the predominant types are different among cultures. This creates apparent cultural difference, causing us to ignore heterogeneity of mindscapes in cultures. Below the surface of homogenous culture, there are all types of logics with which individuals could be identified. Regardless of the dominant national or cultural stereotype, each culture contains people who belong to various mindscape types.

Maruyama (e.g. 1965) suggested epistemological heterogeneity, and the existence of various mindscapes types. He emphasized that there are many possible mindscapes or paradigms. He distinguished four main types for practical purposes and stressed that these are not meant to be neither mutually exclusive nor exhaustive. Those who assume the universe consists of non-overlapping categories may attempt to segregate them into separate categories futilely. It is not clear, however, which aspects of the mindscapes are innate and which ones are learned. It is not clear whether the learned aspects can be unlearned or changed.

Among the many mindscape types, four major ones are H, I, S, and G types. H stands for hierarchy and homogeneity. I stands for isolationism, individualism, and independence. S stands for stabilizing. G stands for generating. About one third of people in many countries belong to H-type, another third to I, S, G and mixtures between them. The other third belong to other types (Maruyama, 1995: 220). Here, the similarity of mindscape types with Harvey's 4 systems, that were discussed earlier, is apparent. The following brief explanation of the four mindscapes is culled from extensive writings of Maruyama.

H-mindscape (homogenistic, hierarchical, classificational). The major characteristics of the H-type are as follows: Everything can be standardized and rank ordered hierarchically. Parts are subordinated to the whole, with subcategories neatly grouped into super-categories. The strongest, or the majority, dominate at the expense of the weak or of any minorities. Belief in the existence of the one truth applicable to all, whether values, policies, problems, priorities, etc. Logic is deductive and axiomatic demanding sequential reasoning. Cause-effect relationship may be deterministic or probabilistic. There are tendencies to formalization, rules, homogenization, control, intolerance of variety, functionalist and goal orientation in activities. Put things in neat categories, look for opposites and place things between two opposing poles. Believe in one truth, compete with others and think that

one's gain is someone else's loss. This perspective predominates in European, and Islamic cultures. This might be considered typical of the work mode, extolled in Western cultures, emphasizing order, procedure and method.

I-mindscape (heterogenistic, individualistic, isolationist, independent, random). This type ascribes to the following: Only individuals are real, even when aggregated into society. Emphasis is on self-sufficiency, independence and individual values. Design favors the random, the capricious and the unexpected. Scheduling and planning are to be avoided. Non-random events are improbable. Each question has its own answer; there are no universal principles. Rebels against homogeneity and looks for freedom from interference. Seeks self-sufficiency and subjectivity. This might be considered typical of "alternative" modes of behavior and idiosyncratic attitudes to work, especially recognized in the attitudes of creative individuals and artists.

S-mindscape (heterogenistic, stabilizing, interactive, homeostatic). The following perspective identifies S mindscape: Society consists of heterogeneous individuals who interact non-hierarchically for mutual advantage. Mutual dependency governs relationships. Differences are desirable and contribute to the harmony of the whole and maintaining the natural equilibrium. Values are interrelated and cannot be rank-ordered. Avoidance of repetition is desirable. Things cause one another in cause-effect loop. Categories are not mutually exclusive. Objectivity is less useful than "cross-subjectivity" or multiple viewpoints (poly-ocularity). Meaning is context dependent. Heterogeneous elements interact to maintain a pattern, and interaction is mutually beneficial. Different points of view among many people are useful in computing invisible dimensions. This could be considered as characteristic of Chinese, Hopi, and Balinese cultures, and might be regarded typical of recreational and "partying" modes of behavior in which interactivity is primary.

G-mindscape (heterogenistic, interactive, morphogenetic, generating). This type of mindscape is similar to S-type, except for a belief in that interaction generates new patterns. The following are other characteristics of this type: Heterogeneous individuals interact non-hierarchically for mutual benefit, generating new patterns and harmony. Nature is continually changing requiring allowance for change. Values interact to generate new values and meanings. Deliberate (anticipatory) incompleteness is valued. Belief in dominance of a heterogenizing style (increasing variety), pattern developing, spontaneity, growth amplification, and polyocular vision. This predominates in the African Mandenka culture (Camara, 1975), for example, and might be considered typical of creative groups nourished by emergent patterns of order, surprise and the unforeseen.

Each type might correspond to different personality modes: work mode, recreational mode, inspirational mode, etc. People may be quite unconscious of switching between modes, although others may perceive it. There are certain merits and benefits to each mindspace types and the mixtures between them (Maruyama, 1994). The H-type, for example, fits very nicely in military, accounting, and law organizations where orderly and classificational thinking is relevant and people with this type of mentality could succeed. The I-type may perform better in situations where the need for secrecy and preference for discretion prevails. The H and I-types are dominant in European cultures, while among the native North Americans, such as Hopis or Navajos, the S and G types are common. Understanding characteristics and merits of each type may eliminate misunderstandings. Individuals of the S-type, common among Danish and Japanese cultures, for example, are reluctant to cause embarrassment or loss of face by bringing up topics such as politics, in Danish case, or disagreeing with people in public, in Japanese case. These practices may give the false impression of agreement in the Japanese case or lack of interest in the Danish case.

### **Concluding Remarks and Managerial Implications**

Often, it is much easier to go along with the conventional practice and travel the beaten path. Those who suggest a new path may face resistance from the vested-interest individuals and groups, or even face rejection. However, persistence and perseverance has its place, particularly in knowledge acquisition and information dissemination, and it pays off in drawing attention to the slighted aspects of the phenomenon under discussion. Eventually, the light can be shined on the neglected and ignored. This paper is in that genre.

So far, cross-cultural studies of management have been sociological type in the mold of Hofstede's work. Numerous studies using the tested and proven sociological method of inquiry into international management practices across cultures have been very fruitful. However, the conventional view of cultures has resulted in the assumption that within each culture members are homogeneous in their psychological make-up, logic, and perspectives. The influence of this type of research has been so pervasive that alternatives were not seriously contemplated. So far, almost all cross-cultural studies have been in that tradition. Even GLOBE studies, could be considered an expanded version of the same. However, Maruyama's theories and research were the exception. Maruyama did not pit his theories against those of the others. He advocated a different line of research that shined a new light on this discourse. He identified epistemological heterogeneity (EH) and proposed individual heterogeneity across cultures (IHAC).

In this regard, while appropriate managerial practices vary from culture to culture, individual similarities across cultures could provide another venue for consideration. Consequently, we can draw certain implications for managing from the application of EH and IHAC. For example, for some issues people of different mindscape types may not necessarily disagree. Their apparent agreement may be based on different assumptions and consequently may face problems as they go along. For instance, they may agree on the value of decentralization but for different reasons. H-type agrees because believes that nothing is lost by the division due to decentralization. I-type may agree because sees each part as independent and makes sense to decentralize. S-type and G-types may agree because in this they see heterogeneity but with the assumption that different parts would interact for mutual benefit.

In all of this, each uses a different logic to come to the same conclusion. Awareness of these assumptions would be useful. In the case of future disagreements the other parties are not accused of insincerity and lack of integrity. Each type interprets personal integrity differently. To the H-type, personal integrity is adhering to absolute principle regardless of the situations. I-type sticks to his/her own principle regardless of others' opinions. S-type and G-types logics depend on the situation. Therefore, future disagreements on issues that have previously been agreed upon may be construed as unethical due to misunderstanding of the basis for agreements and the interpretation of personal integrity.

The discussion of EH and IHAC leads us to the realization that by following the conventional assumption about cultures we have inadvertently ignored those who do not belong to the dominant epistemological type. Worse are the cases that individuals for the reasons that we already have discussed falsely represent themselves belonging to the dominant type. Under this umbrella of comfort, we have side stepped the challenge of inquisitiveness to search for an appropriate lead, and have accepted the practice of disguised homogeneization as heterogeneization (Maruyama, 1995: 246). For example, in the workplace, and in other situations, when forming a group, to create diversity, we mistakenly put together a male, a female, an Afro-American, an Asian etc. as if each represent a homogeneous multitude identified by a title, such as males, females, etc. Following the logic of EH and IHAC, in the above example, managers are well advised to use the proper way of constructing task group, projects groups or focus groups, by applying the concept of 'mindscape' and forming groups whose members are selected from each of the four major types. In this vein, each group would consist of various mindscapes to create the intended diversity.

While EH and IAHC theories provide us with a different and useful perspective, we need to investigate certain aspects of these theories closely.

For example, how to identify each mindscape types, i.e. which of the TOB patterns could specifically be associated with the four major mindscape types? Also, it is not clear which aspects of mindscape are learned, and which aspects are genetically based and innate? Clarification of these issues can provide an expanded foundation for future research.

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Table 1 Major Characteristics of Havey’s Four Systems

| <b>System 1</b>  | <b>System 2</b>  |
|--|--|
| Concrete mode of construing and responding to the world          | Second lowest, among the 4 systems, on abstractness          |
| High absolutism and closedness of beliefs                        | Rebellion against social prescriptions                       |
| High evaluativeness  | High drive toward autonomy                                   |
| Positive dependence on authority                                 | High avoidance of dependency on God                          |
| High identification with social roles & status positions         | High avoidance of dependency on tradition                    |
| High conventionality   | Lowest, among the 4 systems, on F-scale                      |
| High ethnocentrism   | Third, among the 4 systems, on abstractness                  |
| Highly related to the syndrome of authoritarianism               | Second lowest, among the 4 systems, on rigidity              |
| Highest, among the 4 systems, on F-scale                         | Distrust of authority  |
| Highest, among the 4 systems, on rigidity                        | Rejection of socially approved guidelines                    |
| <b>System 3</b>  | <b>System 4</b>  |
| Second highest, among the four systems, on abstractness          | Highest among the four systems on abstractness               |
| Second highest, among the four systems, on rigidity              | Greater openness to and tolerance of the different and novel |
| Lowest among the four systems on self-causality                  | Rely upon values derived from own experience                 |
| Autonomous internal standards in social sphere                   | Less reliance on established truth                           |
| Positive ties to prevailing social norms                         | High perceived self-worth                                    |
| 2 <sup>nd</sup> highest, among the four systems, on F-scale      | Highly differentiated & integrated cognitive structure       |
| 2 <sup>nd</sup> highest, among the four systems, on abstractness | Flexible and creative  |
| 2 <sup>nd</sup> lowest, among the four systems, on rigidity      | High reliance on internal standards                          |
|  | Independent of external standards                            |
|  | Lowest among the four systems on F-scale                     |
|  | Highest on self-causality                                    |

Table 2 Harvey’s Four Systems on Authoritarianism and Dogmatism

|                       |      |           |          |
|-----------------------|------|-----------|----------|
| Authori-<br>tarianism | High | System 3  | System 1 |
|                       | Low  | System 4  | System 2 |
|                       |      | Low       | High     |
|                       |      | Dogmatism |          |

Table 3 Four Mindscape Types  
(Culled from Maruyama’s writings)

**H-type: HOMOGENISTIC, HIERARCHICAL, and CLASSIFICATIONAL**

Lead or follow

Socialize within a homogeneous group.

The stronger should dominate the weaker.

One’s gain is another’s loss (zero-sum).

Personal integrity consists adhering to absolute principles regardless of the situation.

Decision by majority rule, consensus or by experts. Losers suffer at own risk.

Design unity by sameness, repetition and similarity

**I-type: HETEROGENISTIC, INDEPENDENT, RANDOM**

Doing alone

Avoid obligations and commitment. Avoid scheduling and planning.

Everybody should be self-sufficient.

All parties lose if doing together (negative sum). Do your own thing.

Personal integrity consists in adhering to one’s own principle regardless of what other say.

Each person should decide independently.

Capriciousness, randomness and unexpected surprise.

**S-type: HETEROGENISTIC, INTERACTIVE, PATTERN-MAINTAINING**

Doing by interaction with different types of people

Mutual dependency, sharing of intimate concerns, perpetuation of familiar relations and familiar events, preservation of established harmony.

Different individuals can help one another by virtue of being different. Differences are desirable, necessary and beneficial. Sameness generates competition and conflict, while diversity enables mutual benefit.

All parties can gain by interaction (positive sum)

Personal integrity consists in behavior and opinion which reflect social situation and context.

Generate plans to make use of individual differences and to enhance individuality of each person. If a particular decision would create hardship for some individuals, ways to compensate should be devised.

Avoid repetition. Harmony of diverse elements which enhance the individuality of each element.

#### G-type: HETEROGENISTIC, INTERACTIVE, PATTERN-GENERATING

Doing by interaction with different types of people

Make new contacts. Generate new purposes and activities through interaction. Generate new mutually beneficial relations and dissolve non-beneficial relations

Different individuals can help one another by virtue of being different. Differences are desirable, necessary and beneficial. Sameness generates competition and conflict, while diversity enables mutual benefit.

All parties can gain by interaction (positive sum)

Personal integrity consists in inventing new patterns of behavior which generate mutual benefit in new situations and context.

Generate plans to make use of individual differences and to enhance individuality of each person. If a particular decision would create hardship for some individuals, ways to compensate should be devised.

Changing harmony of diverse elements. Multiple interpretations. Deliberate incompleteness to allow for alterations.

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Notes:

H stands for hierarchy and homogeneity. I stands for isolationism, individualism, and independence. S stands for stabilizing. G stands for generating.

There are more than four types. There are mixtures between types.

The four do not fit in a 2 by 2 table. S and G are not between H and I. Positive-sum cannot be between zero-sum and negative-sum.

Homogenistic means predominant use of one-logic.

Heterogenistic means using several logics.

Polyocularity is viewing phenomenon from several perspectives.

Universalist is belief in a universal or general principle that applies to social situations.

Mutualist is defined as opposite of individualistic (all for self) or universalist.

Sequential is step by step, one activity at a time, linear processing.

Simultaneous means that multiple processes occur concurrently and can interact.

Unfolding means removing the coverings or revealing gradually, emergent or evolving.