



Cognitive Diversity And Intercultural Comprehension

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ABSTRACT

Human beings are highly influenced by the culture they are enveloped in. Increasing studies in the field of cognitive science states that culture or environment has a deeply rooted influence on human cognition instead of pointing out the obvious behavioral differences within cultures through their rituals. 20th Century has practiced inter-disciplinary areas of study between the field of psychology and anthropology. It is engendering a very popular scope of research involving the concept of 'cultural relativism' and executing the findings of the same in applied fields of psychology and anthropology. This paper aims at following this vision to study human cognition its relationship with culture and its role in creating cultural differences.

This paper follows a strategic flow of briefly introducing the terms of cognition, culture and stereotypes. It looks at the relationship between culture and cognition and extends the same in studying cultural difference and the mental processes involved in creation of those. In this process it looks at the mental mechanisms of cultural differences and maintains a neutral perspective towards concepts of 'Ethnocentrism' and 'Stereotypes'. It finally proposes a combination of concepts of 'Cultural Relativism' and 'Cultural Flexibility' from the field of anthropology and psychology respectively in order to promote accommodating attitude in situations of cultural differences.

INTRODUCTION

Humans living in 21st century are surrounded by diversity. This diversity is rapidly growing in the age of globalization. With this phenomenon an emerging interest in the domain of culture is attracting many fields of social sciences especially that of anthropology and psychology. Many independent sub disciplines such as cross cultural psychology, cognitive anthropology are indulging in extensive research studying human population, cognition and its relationship with culture. Diversity not only acts a sign of evolving and changing societies but leaves a space for disagreements. They could be between two individuals or two groups. In this era of rapid amalgamation of cultures, it seems important to build a bridge between variations in order to have positive coexistence among human groups.

All human beings possess cognition; Human cognition involves various processes such as perception, attention, memory, language and thinking. Cognitive psychology is a branch of psychology that aims at understanding the mechanism operating these processes and is a scientific study of human mind (Goldstein, 2011). In this age of growing diversity, where acculturation has become a growing part of human interaction, it is important to understand if cognition has any role to play within cultures. However to study these intricate subjects it is first important to clarify the concept of culture. Culture in itself is an abstract term and holds various possible meanings ranging from art to architecture across various communities, none of which are wrong. To narrow the huge range of factors explaining the concept of culture, a fixed definition will be useful to draw specific context. Thus, looking at culture from a holistic perspective, culture can be explained as 'a set of learned behaviors and ideas (including beliefs, attitudes, ideals and values) that are characteristic of a particular society or a social group (Ember, Ember, & Peregrine, 2012). Each culture differs from another giving space for various differences from social to individual level. One of the results of cultural differences covered in this paper will be that of 'stereotypes'. For the purpose specific explanation, 'stereotypes are generalized images that we have about groups of people, particularly about their underlying psychological characteristics or personality traits' (Lee, Jussin, & Mc Cauley, 1995) Adding to this social perspective, 'Stereotypes are cognitive frameworks that influence processing of social information' (Baron, Branscombe, Byrne, & Bharadwaj, 2013).

To deal with stereotypes or ethnocentrism, it is first important to study the relationship between cognition and culture proceeding towards cognition and cultural differences and then drawing a logical proposal of accommodating diversity.

Various fields of social sciences, especially anthropology and psychology lacked considering important variables in their research studies. Anthropology lacks sufficient information in understanding cognition while psychologist did not consider the effect of culture on higher-level cognition. The field of culture and cognition thus needs more meaningful integration of different approaches.

RELATIONSHIP BETWEEN CULTURE AND COGNITION

Contemporary studies of culture and cognition pose a stress on combining anthropology and psychology. Both the fields if studied together engage in developing methods and theories in cross cultural environment rather than using psychological techniques in 'exotic settings'. This helps especially to draw a scientific method in studying culture and cultural differences which are considered to be gateways of opportunities for further research. Human cognition and culture have not being researched intensively therefore new research studies should aim at looking at different questions as opposed to the same areas of usual topics (Ross, 2004).

Alternatively, culture has to be looked as a set of cognitions shared by individuals further studying the causality of disagreements in cultures. There exists a direct or indirect relationship between human universals and stimulating social and physical environment. Culture should be looked as an emerging phenomenon evolving out of shared cognitions that arise as a result of individual interactions with both physical and social environment (Ross, 2004).

An evolutionary psychological approach if adopted while studying the relationship between culture and cognition, states that humans are unique from other species on the basis of their complex cognitions and dependence on culture. Culture and cognition can be explained through different facets consisting of two established research traditions, such as examination of feature of mind that vary across cultures and investigation of psychological universals despite the diversity. Upcoming interests of research such as cognitive mechanisms that underlie culture acquisition and effects of features of cognition and culture could also be addressed while studying these facets. Through the studies conducted by Darwin for investigation of universal emotions and Chomsky's approach to language and cognition, psychological universals are largely defined as the traits, dispositions or functions that exist across different cultures within a subset of population. These traits or dispositions may however vary in the nature of their description across cultures. Many traits across cultures whether similar or not coexist. Example, shame exists in different cultures but the triggering factor could vary from culture to culture (Fessler & Machery) .

People belonging from different cultures live in an environment which is peculiar to that culture. This environment is both social and physical in nature. Cultures also vary in their social framings, beliefs, concepts and therefore affect the cognitive processes of an individual which further affect their personality, growth and cognition. Thus cross cultural differences are more comprehensive if studied ethnographically. Scholars have looked at cultural differences from two dominant perspectives, first being language and symbolism stated in the Sapir-Whorf hypothesis and secondly of environmental differences and their effect on a culture (Fessler & Machery).

Relationship between culture and cognition can be very influential. Cultural information can easily influence cognitive processes however some scholars believe that culture itself is a result of shared mental concepts, artifact information processing and ways of thinking; implying extended cognition. Thus relationship between culture and cognition is innately complex, bidirectional and dynamic (Fessler & Machery).

Cultural diversity is one of the biggest emerging challenges of globalization. Challenges posed by inter-cultural diversity or cross-cultural diversity are more of an opportunity to use human resources to their optimum if dealt by right means. Another successful outcome of the same would be personal growth and positive social evolution. To understand how

culture plays a role psychology, it is important to understand the goals of psychology which include creating a database of knowledge about human behavior and then to use this knowledge to intervene in people's life for their betterment. Both of these goals are perpetually intertwined (Matsumoto & Juang, 2003).

Human psyche is made up of various psychological building blocks. These building blocks serve as a base in exploring cultural differences. These cultural differences may include biological bases in different cultures or psychological differences in perception, memory, language, problem solving which fall under the umbrella of human cognition. This study is also progressed in studying time perception, perception of pain and cross cultural consciousness. Human perception is a basic process of gathering information through senses. In order to study the relationship between culture and perception as a part of cognition in itself, it is important to note that perception can differ from the physical reality of our senses. Perception or information processing is fluid in nature and is always bound to change (Matsumoto & Juang, 2003).

Thus culture easily influences the manner in which we process information. Along with information processing culture can have its influence on cognition. One of the instant and basic process of human cognition is categorization. A basic example could be that of categorizing a 'chair' or adding specific labels to things or forms of particular shapes and sizes. This process of categorization shares an interesting and important relationship in the process of stereotypes, cultural filters and perceptions (Matsumoto & Juang, 2003).

Studies conducted on the Hispanic American population in order to interpret their neuropsychological test results (Pérez-Arce, 1999) proposes a determining effect of culture on an individual's behavior despite their neurophysiological makeup of the brain. The study shows an inaccurate neuropsychological imbalance caused by the cultural factors when some portion of Hispanic population which is an ethnic minority in America had English-speaking clinicians belonging from relatively dominant culture. Components of culture like socio-economic level, gender, age etc. of an individual in the society along with language have an effect on the individual's cognition. It is therefore important to consider that cognition and culture are constantly surrounded and extended by each other. The study encourages a multi-dimensional model consisting of an integrative theory involving cognition, culture and biology.

Cognitive processes like perception are influenced by culture. However, recent studies (Nisbett & Miyamoto, 2005) suggest that perception might not be regarded as a process which includes universal principles across human population. A comparative study of perception carried out between 'Western' population in America and 'Eastern' population in China showed differences in perceptual processes. It was observed that Westerners tend to differentiate the action or an object from context of the situation while the Eastern

population relies more on a holistic perceptual process which looks at an action or an object in its situational context. The study concludes that even if the information processing is fixed and universal it is influenced by cultural constructs and physical environment. The study however draws this conclusion from studying various populations rather than a fixed set of population for the comparative study.

After studying the relationship between culture and cognition, it can be further advanced in learning how cognitive processes play a role in forming cultural differences.

COGNITION AND CULTURAL DIFFERENCES

Fields of anthropology and psychology are important in studying cultural differences apart from implying that culture A is different from culture B. While studying the relationship between culture and cognition it is important to keep two perspectives in mind, culture is an emergence of human cognition and not an external entity and secondly it is important to understand the context in which these cognitions are formed. As cognition is knowledge processing, it is important to study the pattern keeping individuals and knowledge separate to explain agreements and formation of a culture with the deviances that occur. For example, two types of models have been formed by James Boster (1987), one being the 'particle model' and the other known as the 'wave model'. Particle knowledge is collected at an individual level in the form of independent bites. The wave model discusses the knowledge of the others mainly consisting of invisible rules and theories. Therefore both these models are relevant in understanding the type of information flow (Ross, 2004).

Theory of schema is used to explain cultural differences. The concept of schema was developed in the field of psychology and education by Frederic Bartlett in early 1920s and took fifty years to have an impact on cognitive science. The development of this concept proposed a completely different mental representation than that of the dominant behaviorist school of thought in psychology. Bartlett was highly influenced by anthropology, especially with the process of conventionalism of artifact within the community. The process includes importing of an artifact from another community and designing or altering it according to the pattern distinctive to that group. The artifact is assimilated in the group it comes. Bartlett was also influenced by neurologist Henry Head who formed a concept of 'postural schema'. Bartlett was further influenced by trace theory of schema which emphasized that traces of information are stored in the mind. Bartlett argued that all information in the mind is abstracted to form schemas. Bartlett further suggested in his controversial works of 'turn around the schema' theory that for an individual to change his schema, he must recognize his schema turn it around and start afresh (Saito, 1999).

Research studies are further required to cover extensive populations for cross-cultural study as opposed to under-graduate university students. Many students pick up different traits as a result of acculturation thus leading to multiculturalism. For research purposes schemas are

seen as the interpretative frameworks in order to understand an event. However, as schema has no fixed measure it is not a concrete tool for research basis. (Ross, 2004).

For human beings to start the process of thought, segregation of information is necessary. The brain tries to store information by forming clusters of meaningful information as well as finds similarities and differences within the information. This process is known as discrimination a term suggested by cognitive scientists. They also refer to categorization of information as classification. Both of these abilities form at early childhood (from the age of two to seven) and middle to late childhood (from six to eleven years) respectively. According to Piaget, the ability to classify requires advanced cognitive abilities in order to understand subclasses and transform it into a broader category and vice versa. Discrimination and classifications are influenced by the respondent's bias to a particular event or stimuli (Cerulo, 2001). If the respondent holds any preconceived notion about the stimulus, they abort the complete information process and acquire data only to suffice their inclination of thought causing error in the process of discrimination and classification. The process of discrimination and classification are fueled by intricate brain functions as well as by the socio-cultural situations. Our brain contains data banks or information which allows us to draw similarities, differences and categorizes the information not only from physiological perspective but also from socio-cultural perspective. Not considering the latter forms platform for error in information processing. Our brain can detect gross differences among objects or events but is likely to overlook or misclassify objective differences. Socio-cultural perspective avoids this error of judgment. Examples of this could be the communities of Aleut Eskimos who have the ability to distinguish more than 33 types of snow or Solomon Islanders who have the ability to distinguish between nine stages of growth in coconuts. Such detailed classification results from the fact that both the objects (snow and coconuts respectively) are an important part of their social and cultural setting i.e. they hold certain symbolic importance in the culture consisting of values, rituals or beliefs which enhance the perception of classification (Cerulo, 2001).

Thus the process of classification and discrimination in socio-cultural perspective also enhances metaphoric thinking. The basis of classification and discrimination in advanced stages also depend on comparing information. This process of comparison can draw a connection between one's past and present experiences and forms a basis of values and beliefs in further socio-cultural setting (Cerulo, 2001).

Cultural differences, thoughts, behavior, attitudes are result of emotional or cognitive reaction to the stimuli resulting in generalizations, stereotypes and prejudices. An unconscious phenomenon which is recognized while studying cultures is that of ethnocentrism. Ethnocentrism is a normal way of learning about one's culture and the other and it is hardly conscious in its presence. Instead of perceiving it negatively, it could be understood as a cultural filter in perceiving others or events. Ethnocentrism can be a result

of enculturation. Rules, beliefs or values like these are constantly reinforced in the people belonging from their cultures. As an individual starts growing up these filters or ideas become more implicit in nature. These filters are then shared with a group of people belonging from the same heritage which further develop into a set of expectations or values etc. These processes further advances into labels most widely used in our daily life, labels of 'being normal' or 'socially accepted.' Any activity which does or does not fit into these labels evoke emotional reactions that range from frustration, hostility to acceptance and pleasure. As we become more enculturated, we keep on adding these filters (Matsumoto & Juang, 2003).

A lot of psychological processes contribute towards intergroup attitudes and ethnocentrism. Psychological factors affecting these processes at an individual level include self esteem, in-group loyalty, extent or frequency of contact with out-group members etc. Studies on American population in Guatemala which was acculturating to Guatemalan life suggested that actual contact with another culture increases the sense of individual's security in the new culture thus reducing the individual's commitment to their original in-group culture. This impacts the attitude of the individual in relation to adapting to a new culture, thus developing flexibility in one's ethnocentrism. Few other studies show how negative attitudes are formed while interacting with other cultures. The studies suggested that speech style and fluency if related to negative impressions like suspiciousness, nervousness or unpleasantness evoked more negative emotions towards that culture. Also, people are most likely to use stereotypical ethnic terms to describe out-group members in comparison to describing in-group members. Ethnocentrism and inter group attitudes are also highly influenced by socio-cultural factors (Matsumoto & Juang, 2003).

Another important factor of cultural differences is stereotypes. Stereotypes can be explained as generalized images of groups of people particularly underlying psychological traits and characteristics. Stereotypes like ethnocentrism are often looked at from a negative perspective however stereotypes are not good or bad. Few stereotypes based on 'factual observations' are known as sociotypes however stereotypes can be completely baseless. Stereotypes too have basic underlying psychological and cognitive processes that lead to their creation. Some of these cognitive processes include selective attention (which is selecting the stimuli we would want to attend to), appraisal (process of evaluating stimuli and its meaning in our lives), concept formation and categorization, attribution (inference of causes of one's own and other's behavior), emotions and memory. Such basic cognitive processes make stereotypes inevitable in our psyche. They also act as categorical representations which may help or hinder communication with other people. Stereotypes too are easily reinforced once developed. They also play a role in formation of self concept and once acquired are difficult to change unless sufficient evidence of contrary behavior is provided (Matsumoto & Juang, 2003).

Recent studies (Varnum, Grossmann, Kitayama, & Nisbett, 2010) show that social orientation has an influence in creating cultural differences within cognition. However the research does

not determine the type of causal relationship between culture differences and cognition. Further the study lacks to provide any information whether this relationship is stable in nature due to dynamic nature of culture.

CULTURAL RELATIVISM AND FLEXIBILITY

Cultural relativism is an approach which attempts to avoid interpretations and description of behavior or culture based on the scientist's or observer's own culture and standards. This approach was developed by Franz Boas in 1911 and was further established by the works of Melville Herskovits in 1958. Cultural relativism has been widely accepted in the field of anthropology to look at all cultures equally and to avoid personal cultural filters. This approach is also adapted in the field of cross-cultural psychology. The position of cultural relativism while studying cognition and cultural differences suggests that cognitive development although considered to be universal across all human is relative to their cultural settings. It is important to study the relationship of culture, cultural differences and cognition in their relative context (J.W.Berry, 1981).

All individuals' possess certain cultural filters and thus it can be assumed that all of us are ethnocentric to a certain degree. However, it is important to recognize the ethnocentrism within one self. Recognizing and changing one's cultural filters is only possible if one takes time accepting their own ethnocentric ideas. There are number of ways suggested by researchers to attain this flexibility. First, recognizing personal own cultural filters, distortions, coloring of reality and their cultural background. Secondly, by understanding that people coming from various cultural backgrounds possess different cultural filters; the last step involves setting a level of awareness that any person although aware of his cultural filters and attains flexibility, this knowledge is not enough (Matsumoto & Juang, 2003).

Cultural flexibility also includes tolerance for dealing with emotions, judgments of morality and personality associated with personal cultural filters. The approach does not try to hamper personal reactions or filters but proposes an opportunity to look beyond the same. Ethnocentrism or cultural filters are conceived since a very early age through the process of enculturation and are continuously modified in the process of development. Consequently, they become a fixed part of our life through continuous reinforcements and are permanent in an individual's cognition. The process of flexibility does not suggest to completely lose one's cognitive make up but to add more perspectives to our cultural filters. The irony of this process of flexibility is that one's perception about being flexible is also tempered by their cultural and individual abilities (Matsumoto & Juang, 2003).

Stereotypes too can be overcome in similar manner. Self awareness of stereotypical thoughts which further lead to prejudice and discriminative behavior can be kept under surveillance by recognizing the very root of a stereotypical thought. To understand how prejudice form on a higher level of cognition it is important understand what does a stereotype consist of.

Ethnocentrism and stereotypes are basic psychological processes which have the ability to be recognized. Recognizing these processes empowers one to understand similar processes of the others (individuals or cultures) (Matsumoto & Juang, 2003).

Concepts of cultural relativity can be used to enhance the process of being culturally flexible. Cultural relativism although subjected to controversies tries to understand the details of the culture, an approach which can be useful in recognizing how the out-group stereotypical thoughts are formed. Similar process can be useful in creating self awareness about one's ethnocentrism. Looking at behaviors in detail or in a comparative perspective can eliminate possibilities of inferior and superior categorizations labeled to a particular culture by an individual.

Ethnocentrism or stereotypes are born from cognitive processes of perceived reality among individual. A comparative approach of how various cultures function and the different filters formed through the process of socialization itself can be useful to modify one's own cognitive processes. Similar process can be used to understand individual differences within the in-group settings. One of the ways to improve in-group dynamics within a culture is to understand the concept of the culture and its relationship with cognitive process of individuals.

Important principle of cultural relativism is to study cultures in particular context (Ember, Ember, & Peregrine, 2012). If such philosophy is used in understanding cultural filters i.e. To understand the context in which these filters are formed can create a wider platform for more accommodating ideas for out-group as well as in-group diversity. Therefore to be aware of ethnocentric ideas it is more logical to explore the context under which these ideas are formed. The context could range from possible varieties of emotional reactions to social implications of a particular event, stimulus.

It is definitely not a moral stand to decide what is right or wrong within a culture according to personal cultural filters however it is impossible to eliminate basic psychological and cognitive make up of filters formed by strong pillars of socialization, enculturation and acculturation. Cultural relativity and an approach to be culturally flexible can carve a balance between avoiding cognitive dissonance and channeling cultural differences into further negative consequences like conflicts, discrimination, and negative ethnocentrism. The approach of integrating concepts of cultural relativity and cultural flexibility dismisses any ideological view of trying to establish an egalitarian society as such. It only aims at encouraging more self awareness about one's cultural background, tolerance and subjectivity while looking at cultural differences and dealing with it at an individual level.

CONCLUSION

Understanding the relationship of cognition and culture is most effective if studied under a context. Culture has an influence on the manner in which humans process information and the information in itself is looked from a cultural filter. Culture and cognition share an intimate reciprocal relationship with each other. Studying both these variables in isolation can lead to errors whether the variables are used for research or theory, thus results obtained will not be holistic in nature. The study of relationship between cognition and culture provides a background for looking into cognition and cultural differences. Mental processes which go into forming culture also have an effect in formation of cultural differences. It is more important to study terms of ethnocentrism and stereotypes with a neutral stand to understand the mechanism underlying them. This further gives us an objective insight in order to alter or modify them. Understanding the mental processes behind cultural differences both in-group and out-group in nature provides an opportunity to accommodate cultural differences effectively. Anthropological theory of cultural relativism, if looked from its basic vision and idea provides direction for successful practice of becoming culturally flexible. The logic of understanding concepts like culture, cognition, their relationship with each other and their role in cultural differences and combining this entire pack of knowledge to an anthropological theory positively states the possibility of holistic and logical methodology of accommodating cultural variations.

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