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Neuroanthropological Profile in a Population Group of Karnataka

Indelah Khan
Research Scholar, Department of anthropology, University of Delhi, India
A. K. Kapoor
Professor, Department of Anthropology, University of Delhi, Delhi, India

Abstract:
Neuroanthropology intends to embrace all dimensions of human neural activities including emotion, perception, cognition, motor control, skill acquisition and a range of other issues. The present study attempts to document neuro-anthro intra and inter variations among both genders, using psychological variables i.e.,thinking , emotional intelligence, decision making and social anxiety and in linking them to environmental and cultural factors that has an impact on the brain. The sample size selected for the study was 250 Muslim males and females from Bangalore, Karnataka.

Keywords: *Neuro-anthropology, thinking, emotional intelligence, decision making, social anxiety, environmental & cultural effects.*

1. Introduction

Neuro anthropology explores how new findings in the brain sciences help us understand the interactive effects of culture and biology on human development and behavior. It places the brain and culture at the center of discussion about human nature. The implication for neuroanthropology is obvious: forms of enculturation, social norms, training regimens, ritual and patterns of experience shape how our brains work and are structured the human nervous system is especially adept at projecting mental constructs onto the world, transforming the environment into a socio-cognitive niche that scaffolds and extends the brain's abilities. This niche is constructed through social relationships, physical environments, ritual patterns, and symbolic constructs that shape behavior and ideas, create divisions and pattern lives.

Neuroanthropology has four clear roles: (1) understanding the interaction of brain and culture and its implication for our understanding of mind, behavior and self; (2) examining the role of nervous system in the creation of social structures;(3) providing empirical and critical inquiry into the interplay of neuroscience and ideologies about the brain; and (4.)using neuroanthropology to provide novel synthesis and advances in human science theory.The interaction of brain and culture is neuroanthropology's core dynamic, exploring the synthesis of nature and nurture and cutting through idealized views of biological mechanisms and cultural symbols. Using social and Cultural neuroanthropology builds in-depth analysis of mind, behavior and self based on an understanding of both neurological function and ethnographic reality. Neuro- anthropology has application for our understanding of how societies become structured. Inequality works through the brain and body, involving mechanisms like stress, learning environments, the loss of neuroplasticity, the impact of toxins, educational opportunities or their absence and other factors that negatively shape development.

Neuroanthropology has been regarded as being dependent on and complementary to social and cultural neurosciences and has been argued that it has the potential to make a number of distinctive contributions that include:

- Insights into the ways cultural activity unfolds in naturalistic settings and the possibility to better characterize cultural processes that affect brain function and structure.
- Heightened sensitivity to issues related to ethnocentric biases.
- An increased ecological validity of research findings in combination with cross- sectional research.
- In addition to cross-cultural diversity, attention to intra-cultural variability, as well as cultural- related peculiarities of individual brains.
- Expanding ethnographic, archaeological, and paleoanthropological records that can be used to identify phenomena for experimental research derive hypothesis, and contexualize findings.
- An opportunity to use neurometric data to aid in the interpretation of meaning and intention.
- The possibility to use these same data to guide theorizing about social and cultural models and,
- An increased understanding about the full extent of the epistemological processes leading to pragmatically valid knowledge.

One last distinctive contribution of neuroanthropology is its broader scope of inquiry, which includes not only the culture in the brain, i.e., the ways, socially shared meanings and practices are reflected in brain function and structure, but also the brain in culture, the neural mechanisms enabling those meanings and practices-their phylogeny and ontogeny.

2. Review of Literature

Studies of culturally based phenomena within neuro- scientific frameworks represent one of the most dynamic tendencies in contemporary cognitive science. They have provided the foundations of social neuroscience, which comprise studies on brain, correlates on social condition, abilities and disabilities and have contributed to the consolidation of evolutionary science as a multi-disciplinary epistemological field, which frequently involves neuro-scientific topics considered in terms of their functions and evolutionary basis.

Over the past few decades, a growing number of psychologists, sociologists, and anthropologists have stressed that many of taken for granted ways of perceiving and interpreting ourselves and the world around us-as much as we like to ethnocentrically universalize them across time and space, are infact culturally and historically specific(eg. Berger and Luckmann, 1967; Triandis, 2007; Freeman et al, 2009).This work has pointed out that our quotidian realities and basic ways of perceiving, thinking and acting are often constructed by cultural and ecological context that constitutes them.

In Indian context, 2 studies have been carried on Bania of Delhi of age groups 11-41+ years. Including both males and females in the study and they reported that thinking pattern remained mostly same till the age of 30 years among both males and females. It has been showed variation from the age of 31 years and more which might be due to the fact both Bania males and females live in the same social environment but after the age of 30 years their social environment gets changed as most of the females get married by this age. It has also been observed that Bania males are more open to express or share their thoughts compared to Bania females. It might be due to the fact that Bania caste is patrilineal, where more freedom is given to males to express their thoughts than females.

Neuroanthropological variables used in the study: (as used by eminent neuroanthopologists Benjamin.C. Campbell, Juan,F. Dominguez, Suparna choudhury, Jan Slaby)

2.1. Thinking

Thinking as described by the psychologists is the intellectual exertion aimed at finding the answer to the question or a solution to a practical problem. Thinking allows man to make sense of, interpret, represent or model the world they experience and to make predictions about that world. It is therefore helpful with an organism with needs, objectives and desires as it makes plans or otherwise accomplishes those goals.

2.2. Emotional Intelligence

The concept of emotional intelligence proposed by Salovey and Mayer (1990) was defined as “the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and actions. Mayer and Salovey (1997) identified four components of emotional intelligence, involving emotional perception, emotional facilitation, emotional understanding and emotional management.

2.3. Social Anxiety

Social anxieties and fears were described by Hippocrates and began to be delineated with other phobias in the 1870’s, the works of Mark and others in 1960’s and 1970’s and the identification of social phobia (SP) as a distinct disorder in the Diagnostic and statistical manual of mental disorders (DSM-III) (eg. American Psychiatric Association, 1980) and others heralded massive growth in the related scientific literatures. This general arena of problems likely includes several overlapping constructs, the scientific language has many terms that apply or relate includingshyness, social anxiety, social withdrawal, social phobia (SP),social anxiety disorder (SAD), behavioural inhibition (BI), communication apprehension and introversion.

2.4. Decision Making

Decision making can be regarded as the mental progression of resulting in the choice of a path of action among some alternative scenarios. Every decision making process produce a final choice. The output can be an action or an opinion of choice. Decision making is said to be a psychological construct. Decision making forms a significant part of many professions, where specialists apply their skill in a given area to making of an informed decision.

Every day, people are inundated with decisions, big and small. Understanding how people arrive at their choices is an area of cognitive psychology that has received attention. Several factors influence decision making. These factors, including past experience (Juliusson, Karlsson, & Grling, 2005), cognitive biases (Stanovich & West, 2008), age and individual differences (Bruin, Parker, & Fischoff, 2007), belief in personal relevance (Acevedo, & Krueger, 2004), and an escalation of commitment, influence what choices people make.

3. Material and Methods

The present study was carried on Muslim population of both males and females of Bangalore, Karnataka. The sample size worked upon was 364, i.e., 266 males and 98 females and their age group being from 18-60 years. Set of standardized interview schedule/

questionnaire was incorporated as the mode of data collection to infer the intra and inter-variability of emotional, cognitive and psychological dimensions.

4. Results and Discussion

Based upon the Neuroanthropological variables namely 'thinking power', 'decision making' and 'social anxiety', the following results were drawn :

	Socioeconomic variables	Frequency	Percent
1	Education		
	Illiterate	0	0
	Primary	2	0.8
	Secondary	7	2.8
	H. Secondary	170	69.9
	U. Graduate	30	12.3
	Graduate	25	10.2
	Post Graduate	2	0.8
	M.Phil/Ph.D	0	0
	Diploma	7	2.8
	Total	242	99.6
2	Occupation		
	Unemployed	0	0
	Agriculture	0	0
	Govt. Service	4	3.1
	Business	16	12.5
	Private Sector	25	19.5
	Home maker	1	0.7
	Retired	0	0
	Student	82	64.0
	Total	128	99.8
3	Financial status		
	Satisfied	142	67.9
	Not satisfied	67	32.0
	Total	209	99.9

Table 1: Percentage distribution of socio-economic status of Muslims of Bangalore, Karnataka

Table 1 shows the percentage distribution of the socioeconomic status of the Muslims of Bangalore, Karnataka. As far as the 'education' was considered, highest proportion seen was that of 'Higher Secondary qualification i.e. about 69.9%, while the minimal percentage qualification found out was between 'primary' and 'post graduate level'. As far as 'occupation' was considered, the highest percentage of respondents involved the 'students' i.e. 64%, following that came 'publicsector' i.e. 19.5% were employed into I.T's and MNC's, and lowest led by 'government services, i.e. only about 3.1%.Another observation drawn out was noted from the responses as to ' whether they were satisfied from their financial condition, a majority of 67.9% were happily satisfied while comparatively small proportion of 32% were dissatisfied with their current financial position.

Gender	Condition	Frequency	Percent
Males and Females	Alone	99	39.6
	People	17	6.8
	Both	126	50.4
	Total	242	96.8

Table 2: Percentage distribution of Muslims based upon their conditions as to when they prefer thinking

Table 2 shows combined distribution of Muslim males and females of Bangalore in accordance with how do they prefer going into thoughts.39.6% respondents go into random thoughts, when alone while 6.8% starts thinking even while people around and 50.4% can go into random thinking in both the conditions.

Gender	Conditions	Frequency	Percent
Males & Females	always	45	18.0
	most of the time	36	14.4
	sometime	99	39.6
	rarely	35	14.0
	never	29	11.6
	Total	244	97.6

Table3: Percentage distribution of Muslims based on how frequently they share their thoughts.

Table 3 shows distribution of Muslim males and females of Bangalore in terms of how frequent do they share their thoughts, about 39.6% preferred sharing their thoughts 'sometimes', while 18% 'always' shared their thoughts with family and friends, 14.4% of them preferred sharing' most of the time', about 14% rarely shared and 11.65 liked keeping it to themselves.

Gender	Does culture affects thinking?	Frequency	Percent
Males and Females	yes	73	29.2
	no	100	40.0
	can't say	69	27.6
	Total	242	96.8

Table 4: Percentage distribution of Muslims based on their responses as to whether culture affects thinking pattern

Table 4 shows percentage frequency of responses made by Muslims males and females as to whether culture has an influence over thinking pattern.40% responded 'no' i.e. no influence culture has over thinking,29.2% responded 'yes' i.e. culture does have an impact over our thinking pattern while 27.6% responded 'can't say'.

	Gender	Frequency	Percent
Males view	Males	63	40.9
	Females	78	50.6
	Total	154	100
Females view	Males	19	20.2
	Females	75	79.8
	Total	94	100.0

Table 5: Percentage distribution of Muslims based on who spends more time on thinking from both males and females viewpoint

Table 5 shows percentage distribution of Muslim males and females in accordance with 'who spends more time in thinking' .According to males, females spend more time in thinking which constitutes 50.6% as compared to males i.e. 40.9%.Whereas according to females, they too responded likewise and in greater proportion which is about 79.8% females spends greater amount of time in thinking as compared to the males i.e. 20.2%.

	Gender	Frequency	Percent
Males view	Valid	7	4.5
	Very much	46	29.9
	Much	50	32.5
	Sometimes	41	26.6
	Never	9	5.8
	Total	154	100.0
Females view	Valid	3	3.2
	very much	16	17.2
	Much	17	18.3
	Sometimes	49	52.7
	Never	7	7.5
	can't say	1	1.1
	Total	93	100.0

Table 6: Percentage distribution of Muslim males and females on the basis of the responses as to'how easy do they find making a decision

Table 6 shows percentage distribution of Muslim males and females based upon their decision making skills. According to the responses given by males, about 32.5% finds it 'much' easier to make their decisions followed by29.9% were 'very confident' in taking decisions, followed by 26.6 who 'sometimes' finds it easier and a minor percentage of 5.8% who 'never' finds it easier to form a decision. According to the responses given by females, about 52.7% of them 'sometimes' finds it easier to make decisions, followed by 18.3% finds it 'much' easier, followed by 17.2% females who finds it 'very much' easier taking decisions and 7.5% who 'never' finds it easy taking decisions and while 1.1% who responded by saying 'can't say'.

	Gender	Frequency	Percent
Males	very much	30	19.5
	Much	46	29.9
	sometimes	58	37.7
	Never	12	7.8
	Total	146	94.8
Females	very much	19	20.4
	Much	12	12.9
	sometimes	56	60.2
	Never	3	3.2
	Total	90	96.8

Table 7: Percentage distribution of Muslim males and females based upon 'who take decisions' out of compromises'

Table 7 shows the percentage distribution of Muslim males and females as to how frequently they make decisions out of compromises. According to males, 37.7% 'sometimes' compromises while taking decisions, followed by 29.9% compromises 'much', followed by 19.5% who' very much' compromises on taking decisions and 7.8% of them, who 'never' compromises. According to the female's responses, about 60.2% 'sometimes' make decisions on compromises, followed by 20.4% of them, ' very much' compromises, followed by 12.9% who compromises 'much' while taking decisions and 3.2% who 'never' compromises on taking decisions.

	Gender	Frequency	Percent
Males	completely true	37	24.0
	mostly true	31	20.1
	somewhat true/false	38	24.7
	mostly false	21	13.6
	completely false	22	14.3
	Total	149	96.8
Females	completely true	8	8.6
	mostly true	10	10.8
	somewhat true/false	23	24.7
	mostly false	22	23.7
	completely false	27	29.0
	Total	90	96.8

Table 8: Percentage distribution among the Muslim males and females based upon their opinion as to 'they feel comfortable in the company of strangers'

Table 8, the percentage distribution shows, according to the responses given by males, 24.7% agreed 'somewhat true/false' that they felt comfortable with the strangers, followed by 24% responded 'completely true', followed by 20.1% as 'mostly true', 14.3% said 'completely false' that they didn't feel comfortable with or around strangers and 13.6% responded as 'mostly false' as they too didn't feel comfortable. In contrast, females responded 29% as 'completely false' that they didn't find comfortable at all around strangers, followed by 24.7% as 'somewhat true/false', followed by 23.7% as 'mostly false', followed by a small percentage of 10.8% who responded 'mostly true' and a much smaller percentage of 8.6% who responded 'completely true', that they felt very comfortable being around strangers.

5. Conclusion

The present research study highlighted some salient features. As regards the socioeconomic status, a majority of the adult Muslim population were found to be satisfied and content with their present financial conditions. In case of 'how Muslims males and females preferred going into random thinking, high percentage of 39.6% preferred when 'being alone' i.e. in solitude while a very small percentage of 6.8% preferred even while people around them. Another highlight drawn from the response over 'how frequently do they share their thoughts', the highest percentage of 39.6% expressed their thoughts 'sometimes' while the lowest obtained percentage was 11.6% who 'never' shared their thoughts with people or peers. According to the responses given by both genders, they don't think culture into which they are born and brought up has much impact on their thinking pattern. It can also be concluded from the findings, that males find it easier to make their own decisions as compared to the female counterpart. On observing and comparing the previously studied Bania group of Delhi with the Muslims population of Bangalore, Karnataka, it can be summed up, that as like the Bania group, Muslim population, both males and females too, are expressive and vocal about their opinions and thoughts, the reason can be associated with their level of education and the socioeconomic status.

6. References

1. Agarwal, D.& kapoor,A.K.(2013) Cognitive Dynamics in an Ethnic group of North India. Int. J. of Social & Allied Research (IJSAR)
2. Agarwal,D.& kapoor,A.K.(2013) The Emotion perspective of an Ethnic group of North India. Int.J.of Scientific Research publication,vol.3,issue 4
3. Berger, P.L.,8 Luckmann, T.(1967)The social construction of relatively:a treatise in the sociology of knowledge.Garden city, NY.Anchor Books
4. B.C.Campbell & Garcia.R(2009).Evolution & Emotional embodiment.J.of Frontiers in Evolutionary Neuroscience.
5. Chiao,(2009) The brain in culture and culture in the brain: a review of core issues in neuroanthropology
6. Freeman,J.et al;(2009). Culture shapes a mesolimbic response to signals of dominance and subordination that associates with behavior Neuroimage, 47,353-359..
7. Lende, Daniel H., Downey, Greg(2012).The Encultured Brain: An Introduction to Neuroanthropology, MIT press
8. P.N.Johnson Laird & P.C.Wason,(1977) Thinking: Reading in cognitive science. Cambridge University press.
9. Pamela K. Smith, (2008) Abstract thinking increases one's sense of power. J.of experimental social psychology
10. Saniotis A.,(2010)Making Connectivities: Neuroanthropology and Ecological Ethics . NeuroQuantology,Vol 8,Issue 2,200-205
11. Slaby.J & Choudhury,S (2009).Neuroanthropology & Cultural Brain. Max Planck Institute for Social Anthropology
12. Trandis, H.C.; & Gelfand, M.F.(1998). Converging measurement of horizontal and vertical individualism and collectivism. Journal of personality and social psychology, 74,118-218.