

Cultural Consequences of Big Five Traits: Comparing Urban, Rural and Tribal Students

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Abstract: Researchers have claimed that Big Five Traits are based on a biological human universal which has been authenticated from studies on people from 56 nations. However, this theory of universality of Big Five Traits have been countered by many researchers on the ground that most of the prior research have used only WEIRD (western, educated, industrialized, rich and democratic) population overlooking the indigenous and preliterate society. The present study addressed this gap by having samples from both WEIRD and aboriginal populations who are distinctly different in cultural ethos but at the same time share a common socio-political milieu. The study was carried out on 1200 college students including both boys and girls from urban, rural and tribal cultures. The NEO-PI-R was administered on all of them to assess their scores on neuroticism, extraversion, agreeableness, openness, and conscientiousness. The results showed that tribal students demonstrated Big Five Traits in their personality supporting the universal hypothesis of Big Five traits. On the other hand, significant cross-cultural differences were also observed to highlight on the cultural bases of Big Five traits. Some cultural factors are also identified and explained. The conclusion emerged that despite being a biologically determined human universal, Big Five Traits are also significantly a sociocultural phenomenon.

Index Terms: Human Universal, WEIRD, Big Five Traits, Indigenous culture

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I INTRODUCTION

The five-factor model is a widely accepted construct describing personality variation along five dimensions namely; Extraversion, Openness, Conscientiousness, Neuroticism, and Agreeableness. Many researchers have argued that these five factors constitute a “biologically based human universal” that transcends across language and other cultural differences (Bouchard & Loehlin, 2001; McCrae & Costa, 1997; Wiggins & Trapnell, 1997; Yamagata et al., 2006). Cross-cultural tests of the Big Five Traits in over 50 societies across six continents have supported the universality of the model by observing uniform covariance among traits in human beings despite vastly different culture, history, economy, social life, ideology, and every other form of cultural and behavioral expression (Schmitt, Allik, McCrae, & Benet-Martinez, 2007). However, despite the increasing evidences supporting the universality of Big Five Traits in the assessment of personality, a five factor structure does not emerge everywhere (e.g., Cheung & Leung, 1998; Lee & Ashton, 2004). Hence, there has been a concern of the personality researcher that if the Big Five Traits is a human universal, it should replicate everywhere and under a broad range of environments and populations including the aboriginals. The present research is a genuine attempt to further examine this issue of universality of Big Five Traits.

It is observed in the review of literature that Big Five Model has not been adequately used to test the personality of people in an indigenous, preliterate society. The vast majority of samples from cross-cultural studies are often urban students, glibly referred to as western, educated, industrialized, rich, and democratic (WEIRD) populations (Henrich, Heine, & Norenzayan, 2010). Despite the wide range of cultures and languages where the Big Five Traits has been tested, WEIRD populations might show a similar personality structure because of their trait covariance for living in large urban and literate populations. There are also other important reasons for assessing the Big Five Traits in an indigenous, preliterate society. Firstly, human psychological adaptations have evolved in the ancestral context of a hunting and gathering lifestyle with a social life characterized by frequent face-to-face interactions. At present, many tribal groups even continue to maintain traditional lifestyles and share many social and economic characteristics with hunter-gatherers of the primary societies. Testing the Big Five Traits in these populations would be definitely valuable for estimating the

universality of the Big Five Traits. Secondly, in the past, empirical patterns of personality emerged from the observation of WEIRD population has not been conformed when examined in the small societies (Henrich et al., 2010). Hence, it would be scholarly to examine the personality patterns of the tribals using the Big Five Traits.

One of the major problems of psychologists seeking to investigate personality traits across cultures has centered on whether personality trait scales possess conceptual and functional equivalence across cultures (Brislin, 1993; Lonner, 1979; Triandis, 1994; van de Vijver & Leung, 2000). Particularly troublesome has been establishing whether the mean scores across different cultures show scalar equivalence (Byrne & Campbell, 1999; Little, 2000). That is, when comparing the mean scores of different cultures on a personality scale, any observed differences may be not only because of a real cultural disparity on some personality trait but also because of inappropriate or the nonidentical response styles of people from different cultures (Diener & Suh, 2001; Grimm & Church, 1999; van de Vijver, 2000). All of these factors can be difficult to control, making some methodologists extremely skeptical about achieving true comparability of scores on the same test in different languages or cultures (Heine, Lehman, Peng, & Greenholtz, 2002; Poortinga & van Hemert, 2001; van de Vijver & Leung, 1997). Although much of this skepticism is certainly warranted, new research methods and analysis strategies are emerging that facilitate the comparability of cross-cultural personality data (Allen & Walsh, 2000; G. M. Cheung & Rensvold, 2000; Church & Lonner, 1998). However, in the face of such difficulties, it has to be interesting if we can locate people of distinctly different cultural ethos but sharing same language, similar governance, similar socio-economic conditions and identical response styles which would definitely help us to overcome the methodological criticisms raised above. In fact, such equalities are naturally operating among the urban, rural and tribal populations in Odisha, although in terms of cultural ethos, they are distinctly different. In view of such an objective, the present research is designed to estimate the cross-cultural differences in the Big Five Traits using the urban, rural and tribal subjects from a similar but broader socio-geographical context with distinct cultural variations among them

Highlights of the cultures

Three important attributes of Indian culture are environmental orientation, relationship among fellowmen and supernatural beliefs and practices (Srinibasan, 2004). These three features distinctly distinguish between urban, rural and tribal culture in Odisha. Tribal societies share certain common characteristics and by these they are distinguished from rural and urban societies. In Odisha, tribal societies have remained outside the main flow of the civilization for centuries. Therefore, they manifest cultural features signifying a primitive level of socio-cultural existence. Considering the general features of their eco-system, traditional economy, and supernatural beliefs and practices, the tribes of Odisha can be classified as hunting type, collecting and gathering type, cattle-herder type, simple artisan type, shifting cultivation type, and settled agriculture type. Although each type has a distinct style of life; they can be unified as a culture on the basis of their relationship with nature, fellow men and the supernatural. On the other hand, 83% of population in Odisha lives in villages. This village life is very special for its color, culture, tradition, fair and festivals and art and crafts of Odisha. The principal source of occupation in the villages of Odisha is agriculture. Villages offer the beautiful natural landscapes and the proximity to the nature. The villagers are very simple, clean in their heart and lovable personalities. People following different religious beliefs live together in the villages of Odisha. However, they are distinctly different from tribals in their relationship with nature, fellowmen and supernatural. The defining theme of the urban culture in Odisha is the presence of a great number of very different people in a very limited space - most of them are strangers to each other. This makes it possible to build up a vast array of subcultures close to each other, exposed to each other's influence, but without necessarily intruding into people's private lives. Hence, in terms of relationship with nature, fellowmen and supernatural, urban people in Odisha are also distinctly different from the rurals and tribals. Although, these people have different local languages, Odia being the state language and language of instructions in the schools, people in all three culture groups are conversant in Odia language.

Objectives

1. To study the cultural differences in the Big Five Traits among the boys and girls and thereby comment on the 'human universal hypothesis' of Big Five Traits.
2. To identify the aspects of cultural socialization those uniquely impact the development of Big Five Traits of the students.

II METHOD

The participants were 1200 boys and girls of 2nd and 3rd year degree classes from different colleges of Odisha. Ten colleges were selected from each of the urban, rural and tribal settings on the basis of at least 1500 student strength in the college. The age of the students was between 18 to 21 years. The NEO-PI-R was used to measure the Big-Five Traits of personality of the subjects. The NEO-PI-R scale consisted of 240 items to measure the Big Five domains. Each domain was measured by 48 items in a 5-point scale ranging from 1 to 5. The maximum score of any domain is 240.

III RESULTS

Means, standard deviations, F-values and Tukey's HSD results for the urban, rural and tribal boys on each of the Big five traits are reported in Table 1 and of the girls in Table 2. On the domain of neuroticism, the ANOVA results showed significant effect of culture on both boys and girls. It is observed from the means that both urban and rural boys and girls have higher means compared to their tribal counterparts. Further, Tukey's multiple comparison pointed out that while urban and rural boys are not significantly different in neuroticism, both these groups are significantly higher in neuroticism compared to the tribal boys. Similar trend is also observed in the results with respect to girls (Table 2). But in case of girls, there is also significant difference between urban and rural groups, rural girls having higher neuroticism. Hence, the findings may be explained that tribals having believed in simple living have least stressful conditions of life. On the other hand, although urban and rural students have similar kinds of life stresses arising from the competitions of modern life, urban students have better social and parental support compared to the rural student. It arises largely due to socioeconomic status differences and differences in the availability of resources between rural and urban students. Hence, rural students lacking in these support, are more likely to undergo stress, and particularly girls because of son-preference among the rural people, and thereby girls are more likely to develop neuroticism in the pattern of their personality.

The ANOVA results of extraversion for both boys and girls across the culture groups are also significant. The means for boys point to the fact that both urban and rural boys are more extrovert than tribal boys while they are not significantly different amongst themselves. The same trend is also observed among the girls. Such findings may be explained that tribals by nature are docile, agreeable, accommodative and easy-going having limited demands on life. Contentment in life is cultural temperament of the tribals. Therefore, they have least scope to develop extraversion in their socialization processes, and hence, they are likely to be low in extraversion. On the other hand, both urban and rural cultures are highly demanding on their children. Their processes of socialization orient the children for diverse needs, goals, and competitions of life which demands the children to be outward, open, and extrovert. Boys and girls are found alike in their extraversion characteristics in both urban and rural culture.

The results of openness to experience also yielded similar results like that of extroversion for both boys and girls. The F-values were significant but multiple comparisons pointed out that urban and rural boy are significantly more open to experience compared to tribal boys and they don't have significant differences among them. On the other hand, urban girls are more open to experience than rural girls and rural girls than tribal girls. The results again point to the cultural context of socialization. Tribals having limited exposure to modernity of life have less scope for wider experiences and hence have less openness to experience. On the hand, for both urban and rural children, sources of life experiences are growing up rapidly due to the impact of modernization particularly in the field of IT. Although, urban culture is supposed to be more advanced in these respects, rural culture is also not lagging much behind in these regards. Therefore, rural boys are also not behind their urban counterparts in respect of openness to experience. On the other hand, compared to urban girls, rural girls are still in an orthodox socialization process, which lend them to be less open to their experiences of life.

Agreeableness is found to be a less variant trait among the students of the three cultures. Both rural and tribal boys are found to be more agreeable than the urban boys while tribal girls are more agreeable than both urban and rural girls (Tukey's HSD). This may be again interpreted in terms of socialization differences. The life of tribal children are marked by simplicity and uncriticalness and hence, they are more likely to be agreeable than urban and rural children. Similarly, boys are more agreeable than girls in the urban and rural cultures because they are less often contradicted and countered than girls. In essence, it may be said that cultural socialization is the most important basis for the development of agreeableness trait among the children.

Finally, the results of ANOVA and Tukey's HSD pointed to strong cultural differences in the conscientious trait both among boys and girls. Both urban boys and girls are highly conscientious, while rural and tribal boys and tribal girls are low in conscientiousness. Urban boys and girls are supposed to be more conscientious because by their demands of socialization, they are more planful, motivated and goal oriented. Rural girls are more conscientious because there has been a growing trend for their emergence from traditional social roles for which they become more career oriented, planful and motivated. However, it is not clearly explainable as to why rural boys are low in conscientiousness. May be the extreme son-preference attitude of the parents and communities particularly in the rural culture has been more protective for them which results in decreased motivation, planning and effortfulness among them for their future life.

Table 1: Means, standard deviations, F-value, and Tukey’s HSD results on each of the Big five traits for boys

Domains (no. of items = 48 in each domain)	Urban (1)		Rural (2)		Tribal (3)	
	Mean	SD	Mean	SD	Mean	SD
N: Neuroticism	89.43	23.53	89.80	25.51	63.76	21.05
F-value-81.16 (df.= 2, 597); p<.01						
Tukey’s HSD test	1 vs. 2=	P>.05	2 vs. 3 =	P<.01	1 vs. 3=	P<.01
E: Extraversion	104.23	23.58	107.94	26.47	73.21	22.88
F-value-122.58 (df.= 2, 597); p<.01						
Tukey’s HSD test	1 vs. 2=	P>.05	2 vs. 3 =	P<.01	1 vs. 3=	P<.01
O: Openness	114.34	25.90	112.57	21.46	87.70	23.02
F-value-80.14 (df.= 2, 597); p<.01						
Tukey’s HSD test	1 vs. 2=	P>.05	2 vs. 3 =	P<.01	1 vs. 3=	P<.01
A: Agreeableness	108.49	22.26	113.46	25.28	115.73	24.08
F-value-4.79 (df.= 2, 597); p<.01						
Tukey’s HSD test	1 vs. 2=	P<.01	2vs. 3=	P>.05	1 vs. 3=	P<.01
C: Conscientiousness	113.03	23.22	79.14	22.97	79.44	22.78
F-value-143.59 (df.= 2, 597); p<.01						
Tukey’s HSD test	1 vs. 2=	P<.01	2vs. 3=	P>.05	1 vs. 3=	P<.01

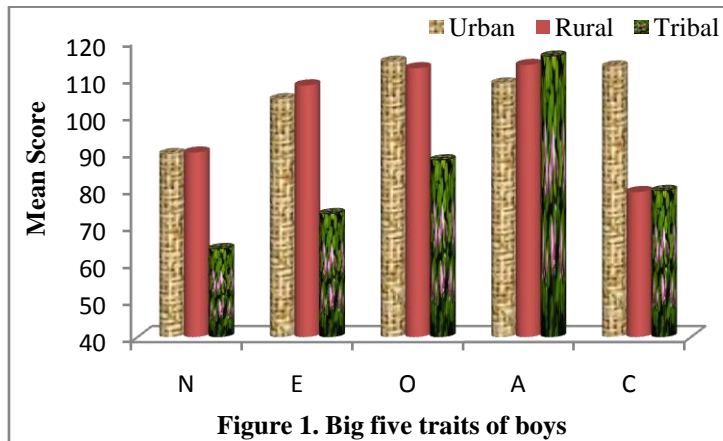
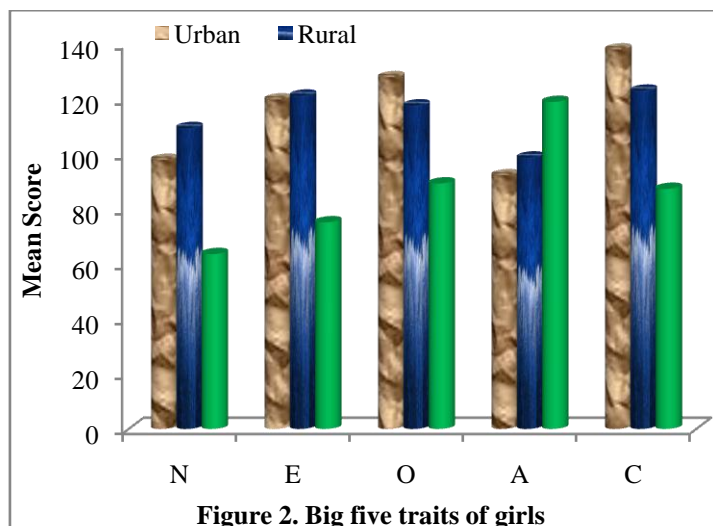


Table 2: Means, standard deviations, F-value, and Tukey’s HSD results on each of the big five traits for girls

Domains (no. of items = 48 in each domain)	Urban(1)		Rural (2)		Tribal (3)	
	Mean	SD	Mean	SD	Mean	SD
N: Neuroticism	97.89	24.75	109.73	32.14	63.62	22.44
F-value-160.10 (df.= 2, 597); p<.01						
Tukey’s HSD test	1 vs. 2=	P<.01	2vs. 3=	P<.01	1 vs. 3=	P<.01
E: Extraversion	119.88	25.46	121.26	25.57	75.17	19.68
F-value-244.19 (df.= 2, 597); p<.01						
Tukey’s HSD test	1 vs. 2=	P>.05	2vs. 3=	P<.01	1 vs. 3=	P<.01
O: Openness	127.96	23.51	117.70	21.70	89.30	24.69
F-value-147.34 (df.= 2, 597); p<.01						
Tukey’s HSD test	1 vs. 2=	P<.01	2vs. 3=	P<.01	1 vs. 3=	P<.01
A: Agreeableness	92.28	21.18	98.73	26.38	118.98	17.99
F-value-79.32 (df.= 2, 597); p<.01						
Tukey’s HSD test	1 vs. 2=	P<.01	2vs. 3=	P<.01	1 vs. 3=	P<.01
C: Conscientiousness	138.05	22.19	123.06	23.06	87.30	22.01
F-value-270.39 (df.= 2, 597); p<.01						
Tukey’s HSD test	1 vs. 2=	P<.01	2vs. 3=	P<.01	1 vs. 3=	P<.01



IV CONCLUSION

The tribal students participating in the present study represent an indigenous and preliterate society. When these students provided evidence of Big Five Traits in the structure of their personality; such results definitely favor the biologically determined universal hypothesis about Big Five Traits. But at the same time, results showed significant cultural differences in the Big Five Traits relating to urban, rural and tribal culture. Had it been only a biologically determined human universal, such crosscultural differences would not have been observed.

Therefore, admitting that there might be biological determinants for the development of Big Five Traits, the importance of sociocultural phenomena in the development of the traits cannot be overlooked. It may be, therefore, concluded that despite being a biologically determined human universal, Big Five Traits are significantly a sociocultural issues.

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