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Cognitive style as a function of gender, caste and residence

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Abstract

The present research was undertaken to see the effect of Gender, Caste and Residence on Cognitive style. For this study 200 respondents (100 Dalit and 100 OBC) of both sexes under graduate students selected through incidental cum purposive technique from constituent college of Darbhanga district. Within Embedded Figure Test (EFT) was administered for measuring cognitive style of respondents. One data obtained were analyzed adopting t test of significance. Results reveal that Gender, caste and residence are effective significant factor in cognitive style of the respondents.

Keywords: Gender, caste, residence and cognitive style

Introduction

The concept of cognitive style is getting more and more attention by the researchers of various disciplines. The cognitive style being the key construct in learning and information processing is widely applied for different purposes in almost all disciplines of social science. The study of cognitive processes roots the Gestalt psychology of Max Wertheimer & Kohler & Koffka and the studies of cognitive development in children by Jenpinjet during the nineteenth century. The publication of the Psychological types (1923) in the beginning of the 20th century is an important antecedent of cognitive style.

Cognitive style refers to one's style of perception of external objects. It is developed during the process of socialization of a child and it becomes the basis of one's perception psychologically and anatomically. Cuvry accepted it as an "under young and relatively permanent personality disposition."

Tennant (1988) ^[1] attributed Cognitive Style as "Individual characteristics and consistence approach to organizing the processing information".

Andrea Vranic (2021) ^[1] *et al.* Conducted a study to assess the relation between Cognitive Style and personality among younger and older adult and found that the relations between person traits and cognitive style differ in different age groups.

W.Kusumaingsin.2019.the result showed that cognitive style between Male and Female students have a similar understanding.

N. Upadhayay and S. Guragain- Conducted a study to compare the cognitive function between the Male and the Female students. The result was found to be contradictory.

Jessica *et al* (2013) ^[2]. Conducted a study on a sample of 190 primary school students to assess the effect of gender in differ on cognitive style and found that a significant gender / cognitive style interaction were found in context of gender.

Rangaiah Babu *et al*, (2009) ^[4]. Conducted study on cognitive style among children and adult of urban and tribal contexts and found that the urban sample were psychologically more differentiated compared to tribal sample.

G. Sinha (1988) ^[3]. Examined the effect of the experience of formal schooling, industrialization and urbanization on the SPEFT performance of the Tribal children. Urban industrial and schooled sample performance were better than rural non-industrial and unschooled sample. Industrialization had the strongest impact on the performance of children; the impact was further strengthened when it was combined with the exposure to urban life and formal schooling.

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R.C.Mishra, Sinha and Berry (1996) [12] Using the framework of Berry's Eco cultural model the researcher sought variations in ecological feature of the groups by sampling Birhor (nomadic hunters and gatherers), Asuv (recent settlers pursuing a mixed economy of hunting, gathering and agriculture), and Oraen (Long standing sedentary agriculturalist) tribal culture group of Bihar. In each group sampling variations were obtained with respect to a no. of objective and subjective means was of contact acculturation. Test acculturation (the degree to which an individual feels free and comfortable in a test situations) was also measured. Socialization emphases (pressure towards compliance or assertion) in these groups were assessed through a combination of observation, Interview and testing. Cognitive style was measured by the SDEFT, The tactile EFT (TEFT) and the EDT.

The finding revealed that the effect of both the Eco cultural and acculturation feature of the groups was significant, supporting the general prediction of the Eco cultural model. The interaction between Eco cultural background and acculturation revealed that acculturation on had a significant influence largely on the over on groups and the case of the Asuv and Birhor groups the effect was negligible or nonexistent.

Shukla (1993) [13]. Conducted a developmental study and analyzed the responses of children (age group of 4-6, 7-9, 10-12) on fine pictorial tasks PIP, SPT, PINT, PRT and PFET. Children performances increased with age on almost on all the measures.

Aims and Hypothesis

The aims of the study were as follows

- To see the effect of gender on cognitive style (F.D.-R.I)
- To Witkin's Embedded Figure Test assess the impact of caste on cognitive style, to see the influence of residence on cognitive style.

Hypothesis

The male and the female would differ significantly on cognitive style.

The other background caste and schedule caste would significantly differ in cognitive style.

The rural and the urban respondent would differ significantly in cognitive style.

Methods

The sample for the present study consisted of 200 (100 dalit and 100 other backward) caste of both gender undergraduates students. Selection was done through incidental cum purposive sampling technique from the constituent colleges of Darbhanga districts. Only those respondents were included who gave consents to participate in the study.

Measure

- Personal Data Sheet.
- Witkin's Embedded Figure Test (EFT).

Personal Data Sheet

For identification and selection of respondents was prepared by the researcher to get information regarding respondents such as gender and residence status of family.

Witkin's Embedded Figure Test (EFT)

Witkin's Embedded Figure Test was used to measure field-independence dependence EDT of the respondents. It is one of the most widely used test by the investigators. The standard test consists of simple figure (A, B, C, D, E, F, G, H) and 24 complex figure.

For each simple figure there are several different complex figures that contain it and hence, each complex figure is denoted by a letter to indicate the simple figure to be found in it. From the 20 complex figures 5 contains simple figure A, 2 contains B, 5 contains C, 2 contains D, 5 contains E, 1 contain F, 3 contain G, and 1 contain H.

The test has a fairly high reliability as shown by odd-even correlation of 0.87 for men and 0.74 for women in an American sample and 0.76 for men and 0.81 for women in an Indian sample. It is an individual test. Test participants who takes higher time is called field dependence and vice-versa. Scoring is done in terms of seconds.

Result and Discussion

Table 1: Mean, SD, t-value of cognitive style (FD-1) scores as functions of gender

Group	N	Mean	SD	t	df	p
Male	100	306	86.93	8.45	198	<.01
Female	100	320	84.48			

It is clear from the table that there is a significant difference between the males and the females' respondents in their cognitive style. Female respondents are field dependent as they have taken more time (mean -320 seconds) to locate the figure in comparison to male (mean-306 seconds) The difference between the two group is statistically significant beyond 0.01 level of confidence ($t = 8.45$, $df = 198$, $p < .01$). Thus the Hypothesis framed in this case is verified. Findings have been supported by the findings of previous researchers. (Alam 1989, Pandey 2000, Perwez 2013) [14, 15, 16].

Table 2: Mean comparison of backward castes and Dalit respondents on cognitive style scores.

Group	N	Mean	sd	t	df	p
OBC	120	198	72.51	10.76	198	<.05
Dalit	80	320	82.11			

It is evident from table-02 that there is a significant difference between the other backward caste (OBC) and the Dalit on cognitive style scores. The Dalit group has higher mean scores (Mean-320) than the mean scores (Mean 198) of the other backward caste group and the difference between the two mean score is ($t = 10.76$, $df = 198$, $P = < .05$) is significant as a level of confidence. Thus it might therefore be concluded that the other backward caste respondents are field independent in their perceptual style than the Dalit respondents. The hypothesis framed in their case is accepted. Findings have been supported by the finding of previous researchers (Broota & Ganguli 1975, Rath, 1989, Witkin *et al*, 1981) [17, 18, 19].

Table 3: Mean comparison of Rural and Urban respondents on cognitive style scores;

Group	N	Mean	Sd	t	df	p
Rural SS	75	292	65.12	1.24	198	<.01
Urban SS	125	280	67.51			

It is clear from the Table; 03 that there is significant difference between rural and urban respondents group on cognitive style scores. The rural respondents group has higher mean scores (mean=292) than the mean score of the urban respondents group (mean=280). The difference between the two mean score is significant at 0.05 level of confidence. The hypothesis framed in this case is retained. Hence it might therefore be concluded that the rural respondents are field independent than the urban respondents. The findings are similar to the findings of previous researchers (Alam 1981, Verma & Sinha 1977.)^[20, 21].

Conclusion

On the basis of the findings of the study, the following conclusion is drawn:-

Gender is a significant factor in cognitive style of the respondents, female having superior field independent as compare to male.

OBC and Dalit differ significantly on cognitive style, Dalit having superior field independent in their perceptual style as compare to OBC respondents.

Rural and urban respondents differ significantly on cognitive style, rural respondents as compare to urban respondents.

References

1. Andrea Vramic, Blaz, Rebernjak, Marine Martincevic. *Current Psychology*; c2021, 40(1).
2. Jessica, *et al.* Cognitive style and gender differ in children's Math achievement. 2013;39(3)355-368.
3. Sinha G. experience of formal schooling, industrialization and urbanization. *Indian Journal* 1988;2(1):142-145.
4. Ramgaiah Babu, Mewa Singh, Gadheri AR. Cognitive style among children and adult in tribal and urban context. *Journal of the Indian Academy of Applied Psychology*. 2009;35(1)131-136.
5. Talukdar RR. The embedded figure test performance of the Tribal children. *Journal of community guidance and research*. 2003;20(2):101-108.
6. Messik S. *Individuality in learning*. San Francisco: Jossey-Bass; c1978.
7. Nepal B. Impact of gender and location on mathematical thinking and mathematics achievement. *Journal of advance academic research (online)*; c2016.
8. Kusumaningsih W, *et al.* Gender differences in algebraic thinking ability to solve mathematics problem. *Journal of Physics (online)*; c2018.
9. Eugene Sadler, *et al.* Cognitive style and instructional preferences. *Journal of instructional science*. 1999;27(5):355-371.
10. Ruth PA. Cognitive style and user's metaphors for the web. *The journal of academic librarianship*. 2001;27(1):24-32.
11. Tennant C. Parental loss in childhood: Its effect in adult life. *Archives of general psychiatry*. 1988 Nov 1;45(11):1045-50.
12. Mishra RC, Sinha D, Berry JW. *Ecology, acculturation and psychological adaptation: A study of adivasis in Bihar*. Sage Publications, Inc; c1996.
13. Xue Y, Shukla J. The influence of land surface properties on Sahel climate. Part 1: desertification. *Journal of climate*. 1993 Dec;6(12):2232-45.
14. Alam MS. *Anatomy of corruption: An approach to the political economy of underdevelopment*. American Journal of Economics and sociology. 1989 Oct;48(4):441-56.
15. Pandey A, Soccol CR, Mitchell D. *New developments in solid state fermentation: I-bioprocesses and products*. *Process biochemistry*. 2000 Jul 1;35(10):1153-69.
16. Egorova Y, Perwez S. *The Jews of Andhra Pradesh: contesting caste and religion in South India*. Oxford University Press; c2013 Apr 29.
17. Broota KD, Ganguli HC. Cultural differences in perceptual selectivity. *The Journal of Social Psychology*. 1975 Apr 1;95(2):157-63.
18. Rath M, Niendorf A, Reblin T, Dietel M, Krebber HJ, Beisiegel U. Detection and quantification of lipoprotein (a) in the arterial wall of 107 coronary bypass patients. *Arteriosclerosis: An Official Journal of the American Heart Association, Inc*. 1989 Sep;9(5):579-92.
19. Witkin AP. Recovering surface shape and orientation from texture. *Artificial intelligence*. 1981 Aug 1;17(1-3):17-45.
20. Chowdhury AK, Alam MN, Ali SM. *Dasherbandi project studies. Demography, morbidity and mortality in a rural community of Bangladesh*. *Bangladesh Medical Research Council Bulletin*. 1981 Jun 1;7(1):22-39.
21. Deopura BL, Sinha TB, Varma DS. Dependence of Mechanical Properties on Crystalline, Intermediate, and Amorphous Phases in Poly (Ethylene Terephthalate) Fibers. *Textile Research Journal*. 1977 Apr;47(4):267-71.