

Socio – Cultural Correlates of Cognitive Style: A Study of Primary School Children

Manjari Srivastava^[1]

Madhu Asthana^[2]

Abstract: The present study was concerned with the investigation of the effect of some socio – cultural variables on cognitive style among primary school children. The sample consisted of 200 (100 boys and 100 girls) primary students, studying in class II, III and IV in various primary schools of Varanasi. The age range of the sample was 7 – 9 years. The SPEFT scale constructed and standardized by D. Sinha (1984) was administered to measure cognitive style of students. Socio – cultural variables like locale, family structure, gender, birth order, socio economic status and caste were ascertained by personal data sheet prepared by the investigators. Results indicated significant impact of locale, showing urban students more FI than rural. Other socio – cultural variables failed to yield any significant impact on cognitive style of students.

I. INTRODUCTION

The concept of culture has a long tradition in the human sciences. However, scholars have not yet arrived at a consensus about its characterization. It has proved to be a fuzzy concept of varying relevance to various scientific projects (Freilich, 1989). Nevertheless, at least one prominent and widely shared conception suggests that culture is a historically situated, collective product, constituted by the values, beliefs, perceptions, symbols and other humanly created artifacts which are transmitted across generations through language and other medium. In this sense culture reflects the value seeking process of human beings and implicates a particular world-view or design for living. Culture is simultaneously a product of human action as well as determinant of future human action, a composite of meanings and associated traditions which define, inform and constitute the range of our understandings and investments.

Inkeles and Levinson (1969), term a socio-cultural system, is a set of person and social positions or roles that possess both a culture and a social structure. A culture is a set of cognitive and evaluative beliefs-beliefs about what is or what ought to be that are shared by the members of a social system and transmitted to new members. A social structure is a persisting and bounded pattern of social relationships (or pattern of behavioural interaction) among the units (that is persons or positions) in a social system.

Cognitive style is a “hypothetical construct, that has been developed to explain the process of mediation between stimuli and responses. the term cognitive style refers to the characteristics ways in which individuals conceptualize the environment” (Goldstein and Blackman, 1978).

Witkin et al. (1962) described two aspects of cognitive style. One they labeled field dependent and other one field independent. The term “field dependent” was used to describe those who relied relatively more on visual field. The constructs of cognitive style and psychological differentiation have generated voluminous research in all parts of the world including India. The stability of these constructs and their psychological correlates have been questioned in studies. A major focus have been on the study of eco - cultural and socio - demographic factors as

determinants of FD – FI cognitive style, or of psychological differentiation (Sinha and Mishra, 1988). The role of rural – urban upbringing and social class have particularly been examined. Tharakan (1987) found that urban male students were more FI than urban female students with no evidence of sex difference in the cognitive style of the rural school samples. Chatterjee and Paul (1983, 1984) reported that urban students were more FI and had better achievement in science than rural students. Sharma and Huja (1982), Nah (1990), Verma (1992) and Sinha (1996) also reported more field independence in urban children in comparison to rural children. Asthana (2000) found that rural-urban residential background significantly influenced the cognitive functioning of children. But Kubes, (1998) found that cognitive style is independent of culture.. Sangwan and Chhikara (2000) indicated no significant impact of locale on cognitive abilities (including three aspects of cognition perception, classification and spatial relations) of primary school children. Majeed and Ghosh (1983) examined the relationship of ethnicity, social-class and residential background on cognitive differentiation. Higher class subjects performed better than those of the lower class on the EFT, whereas ethnicity (high caste, SC and Muslim) and residential background appeared to operate jointly as influences on cognitive differentiation.

The diversity of findings regarding cognitive style demands to explore the variables which may influence it. Keeping this in view the present study has been conducted.

The present study deals with some socio-cultural correlates of cognitive style, namely locale, family structure, gender, birth order, socio economic status and caste.

Hypotheses:

The following hypotheses have been formulated in the light of the above problem and objectives, which are envisaged to be tested in the present study.

1. Rural-Urban residential setting will significantly influence cognitive style of students. Urban children will be more field independent in comparison to rural children.

^[1] Dr. Manjari Srivastava, Department of Psychology, Sri Agrasen Kanya Autonomous P.G. College, Varanasi, (U.P.)

^[2] Dr. Madhu Asthana, Reader and Head, Department of Psychology, Sri Agrasen Kanya P.G. College, Varanasi, (U.P.)

2. Family structure (joint and nuclear) will have significant influence upon cognitive style of children.
3. There will be no gender difference in cognitive style of children.
4. First born children will differ significantly regarding cognitive style in comparison to later born children.
5. There will be no impact of socio - economic status on cognitive style of children .
6. Impact of caste on cognitive style of children will not be significant.

II. METHOD

Sample : The sample consisted of 100 rural and 100 urban primary school children (50 boys and 50 girls) within the age group of 7-9 years, studying in class II, III and IV. They are selected randomly from different schools of Varanasi district.

Materials: The tools used in the present investigation were

1. Story Pictorial Embedded Figure Test (SPEFT) developed by D. Sinha (1984). SPEFT measures to cognitive style of children.
2. Personal Data Sheet prepared by the researcher for collected general information about the subjects.

III. RESULT

The responses of the subjects were scored according to the direction given in the manual and treated statistically. The t – test and one way ANOVA were used to analyze the data. Table 1 shows significance of difference between cognitive style with reference to certain socio-cultural variables used in the study i. e. locale, family structure , gender and birth order. Table 2 shows impact of caste and socio economic status (SES) on cognitive style of children.

Table No. 1: Cognitive style of children with respect to some demographic variables (df=198)

Variables	Group	N	M	SD	t
Locale	Rural	100	31.26	3.85	3.42*
	Urban	100	32.91	2.90	
Family Structure	Joint	79	31.94	3.56	0.47
	Nuclear	121	32.18	3.49	
Gender	Boys	100	31.99	3.36	0.38
	Girls	100	32.18	3.68	
Birth Order	First born	55	31.95	3.60	0.34
	Later born	145	32.14	3.49	

** Significant at .01 level

Table 1 reveals that except locale all other demographic variables (family structure, gender and birth order) were found to have insignificant impact on cognitive style of children.

To ascertain impact of SES on cognitive style, three levels of SES high , middle and low were taken and one way analysis of variance was applied. Similarly three categories of caste general, other backward caste (OBC) and SC/ST were taken into consideration and to find out its impact on cognitive style

, one way analysis of variance was applied. The findings are presented in table 2.

Table No. 2: Cognitive style of children with respect to SES and Caste (Result summary for one way ANOVA)

Variables	Source of variance	SS	df	MS	F
SES	Between Groups	28.48	2	14.24	1.15
	Within Groups	2431.52	197	12.34	
	Total	2460.00	199		
Caste	Between Groups	27.08	2	13.54	1.10
	Within Groups	2430.48	197	12.34	
	Total	2457.56	199		

A perusal of table 2 reveals that neither SES nor caste is influential with regard to cognitive style of children. So it may be said that children belonging to any socio economic status – high, middle or low; or any caste – general, OBC or SC/ST do not differ significantly regarding their cognitive style.

IV. DISCUSSION

The present investigation aimed to study some socio cultural correlates of cognitive style of primary school children. For this purpose SPEFT was administered to the total sample and the scores were treated statistically by using t – test and F – ratio.

A cursory look at table no. 1 reveals that there is significant difference between cognitive style of rural and urban children. Urban children have more field - independent cognitive style in comparison to rural children.

The findings of the present study are in accordance with the following ones.

Sharma and Huja (1982) found a significant difference in the level of field dependence / field independence of rural and urban students. Chatterjee and Paul (1983; 1984) reported that urban students were more FI and had better achievement in science than rural students. Tharakan (1987) found that urban male students were more FI than urban female students with no evidence of sex difference in the cognitive style of the rural school sample. Nah (1990) found that urban children have more field-independent, more proficient in cognitive differentiation tasks and less sensitive to external environment. Sinha (1996) reported that urban children score higher than rural children on the SPEFT. Asthana (2000) found that rural-urban residential background significantly influence the cognitive functioning of children.

The finding of the present study contradicts those, which show no impact of locale on cognitive style. Sangwan and Chhikara (2000) indicated no significant impact of locale on cognitive abilities, (including three aspects of cognition - perception, classification and spatial relations) of primary school children.

The size of family is a sociological variable. However, Psychologists are also interested to know its impact on behaviour. In the small family most issues such as family size, spacing of children and child rearing are matters of general argument. Children from small families have a higher activity level and seem to be more poised and self confident with the

adults, than the children from large families. They also seem to be more energetic and future oriented.

In the present study an attempt has been made to find out impact of family structure on cognitive style of students. From table 1 it is clear that there is no significant difference in cognitive style of students belonging to joint and nuclear family. The finding of the present study is in accordance with the following studies. The studies conducted by Rosen (1961), Douglas (1964), Roodin, Broughton and Vaught (1974), Zajonc (1976), Olneck and Bills (1979) point to the negative effect of family size on field dependence. But Schooler (1972) found that among middle – children in old size families females were more field dependent than males.

Gender difference in cognitive style is not significant (Table 1). Same findings have been obtained by Bigelow (1971), Perny (1976), Hughes (1978), Saracho (1980), Kalyani Devi (1982), Tharakan (1987) and Arrington (1987) also reported the absence of sex differences in cognitive styles.

But in several other studies it has been found that boys and girls differ significantly regarding their cognitive style. Witkin et al. (1962) and Talukdar (2003) reported that boys and men tend to be more field independent than girls and women, while Riding and Fuirhurst (2001) found females behaving better than males on cognitive style tasks.

The distinctive feature about the position of younger children in the birth-order is that they are much more subject to child-level interaction than is the firstborn. Since the firstborn is (initially) bigger, stronger, more competent and able to exert dominance over younger siblings, he/she is likely to serve as a model for them. Thus we would expect younger siblings to have a greater sensitivity to the moods of older children and to be more peer-oriented once they move outside the family (Clausen, 1966). This is consistent with Sampson's (1965) observation that the early self-concept of firstborns is based largely on the appraisal of parents, whereas the self-concept of later born children is more likely to reflect peer evaluations, provided mainly by siblings.

The present study also aimed to study impact of birth-order on cognitive style of students. The Findings presented in table 1 shows clearly that there is no impact of birth order on cognitive style of students. This finding is supported by several other studies. Stewart (1967) reported a significant relationship between birth-order and performance on an embedded figure test among male college students. Culver and Dunham (1969) reported that there were no relationships between birth-order and two measures of field-dependence (rod-and frame test and embedded-figure test). Simon and Wilde (1971) reported that there were no relationship between birth-order and performance on embedded figures. Using the rod-and frame test with college students, Kinsolving and Bone (1971) reported that only born males and firstborn females were more field dependent than only born females and firstborn males. Reighard and Johnson (1973) found both the sex and birth-order significant males being significantly less field-dependent than females and firstborn being significantly less field-dependent than either later borns or only children. More field dependence was found for the eldest brother of brothers or sisters than the youngest brother of brothers or sisters. These inconsistencies

may be due to different systems of classifying birth-order and different measure of field-dependence (Reighard and Johnson, 1973). Olneck and Bills's (1979) study. They found no significant effect of birth-order on measures of intellectual ability and educational attainment. The finding of present study contradicts those which show significant impact of birth-order on cognitive style. The role of socio-economic background is of great importance information, shaping and development of human personality, male or female. Behaviour pattern become manifest by individual from different socio-economic and cultural backgrounds. The hierarchy in the distribution of the privileges of life in different groups individuals are the same individually, socially, culturally, physically and currently they are characterized, by the status emerging out of 'milieu'. The group status and standing have a foot on different socio-economic environments. Their occupation, cultural background and income denote their socio-economic status. Low socio-economic status lacks skilled work and income whereas high socio-economic status, through its standards and privileges moves around through. In the present study the impact of socio-economic status on cognitive style was ascertained by using one way analysis of variance (ANOVA) technique. The finding presented in table 2 shows insignificant F value, which indicates no difference in cognitive style of students belonging to high middle and low socio-economic status groups. In the present study impact of SES has been found insignificant but a study conducted by Majeed and Ghosh (1983) reveals that SES significantly influence the cognitive differentiation of individuals. They reported that high class subjects performed better than those of the lower class on EFT.

Three categories of caste, i.e. general, other backward castes (OBC) and scheduled castes and scheduled tribes (SC/ST) were taken into consideration. Scores obtained on (cognitive style) Story Pictorial Embedded Figure Test under the above three categories were calculated. To find out impact of caste on cognitive style one way analysis of variance (ANOVA) was applied. The findings are presented in table 2 reveal that there is no significant impact of caste on cognitive style. Insignificant F value shows that caste is not related to their cognitive style of students. In the present study impact of caste has been found insignificant but some studies show that caste significantly influence the individuals. Majeed and Ghosh (1983) examined the relationship of ethnicity, social-class and residential background on cognitive differentiation. Higher class subjects performed better than those of the lower class on the EFT, whereas ethnicity (high caste, SC and Muslim) and residential background appeared to operate jointly as influences on cognitive differentiation. Mishra (1988a) found that high caste adults performed better on pictorial perception test of field independence-field dependence cognitive style.

On the basis of these findings hypotheses 1 that, "Rural-Urban residential setting will significantly influence cognitive style of students. Urban children will be more field independent in comparison to rural children" is accepted at .01 level. Hypotheses 2 that, "family structure (joint and nuclear) will have significant influence upon cognitive style of children" is rejected. Hypotheses 3 that, "gender will not

significantly influence cognitive style”, may be accepted. Hypotheses 4 that, “first born children will differ significantly regarding cognitive style in comparison to later born children”, is rejected. Hypotheses 5 that, “socio-economic status will not significantly influence cognitive style of children”, may be accepted. Hypotheses 6 that, “impact of caste on cognitive style of children will not be significant”, may be accepted. Findings shown in table 1 and 2.

V. CONCLUSION

On the basis of the above findings, it may be concluded that except locale, all other demographic variables were found to have insignificant impact on cognitive style of children. Urban children were found to be more field independent in comparison to the rural ones.

VI. REFERENCE

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