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Interaction of Jensen's level I and level II abilities with socio-economic status

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Abstract

In order to study Interaction of Jensen's level I and level II abilities with socio-economic status a total of 208 low and high SES subjects were selected by a stratified random sampling procedure. Subjects were matched/controlled for sex age, educational level, SES and schooling. All the subjects were from grade IX and X. The received Forward digit Span, Backward Digit Span and paired Associate tests, SES rural scale and Raven's progressive matrices. Obtained dates were processed and appropriately analyzed applying t-test, correlational Analysis, Principal component analysis with vermix rotation. It was found that high SES subjects scored significantly higher than their low SES counterparts on Level II (SPM). But high SES and low SES groups did not differ significantly in their performance on Level I ability tests. SES bears a significant correlation (r= .31) with Level II (SPM scores), whereas it has low association with Level I measures, correlation of SES with Level II is not a high magnitude the studies shows, which was conducted on American population. High SES groups differ markedly from low SES group in degree of correlation between Level II and Level I. In high SES these measures correlate .32 and on low SES correlate only .16.

Keyword: SES Socio-economic Status, SPM: Standard Progressive Matrices.

Introduction

Jensen (1968) formulated a two-level theory of mental abilities to account for social class and racial differences in intelligence. Research evidence lead him to conclude that observed social class (SES) differences in intelligence range along at least two dimensions. Belle et al.,(1951) have also pointed out that SES differences wore related to the cultural content of the test items and the complexity of the items, i.e., the degree of abstractness and problem solving involved in the test items. Thus one dimension would be that of culture loading and another complexity of the test items. Jensen's theory postulated that Level I ability is about equally distributed in all socio-economic status (SES) groups, whereas, Level II ability is distributed quite differently in high and low SES groups. Level II ability is positively skewed for low SES children and negatively skewed for middle or high SES children. In contrast, Level I scores are not skewed in any of the SES groups. Possibly the most important results of Jensen's work is that in every study that has been performed by him low and middle SES groups differ much less on level I test then on Level II, He concluded that Level I ability is not correlated with SES and Level-II is positively correlated with SES. Jensen (1970) has reviewed the empirical evidence to the hypothesis that Level I has a different relation to SES than Level II. Jensen's (1970, 1974) major research effort has centered on the interaction of Level I and Level II abilities with SES. He found that in the lower I.Q. ranges, the low SES children were better on Level I test than their middle SES counterpart. Low SES children of high IQ, on the other side were not significantly different in Level-I from that of middle SES children of similar IQ. This finding suggests a lower correlation between

Level I and level II ability of low SES then in high or middle as populations, Jensen, (1974) suggests that it is preferable to examine the regression of Level I on Level II rather than correlations between measures of Level I and Level II in each SES group. The regression of Level I upon Level II ability is greater in high and middle SES groups then in low SES groups.

According to Jensen, most clear explanation of different correlations between Level I and Level II abilities in different populations is in terms of genetic assortment. Though Level I and Level II are controlled by two different polygenic systems, these can become assorted together to any degree in a given population through selective and assortative mating. Level II ability, being more highly related to the academic and higher occupational status in more subject assortative mating and consequently to genetic stratification in terms of SES.

Jensen (1970, 1974) argues for the importance of Level I ability in the educative process. He suggests that Level I ability which includes associative and rote memory, should be more fully exploited them at present in teaching low SES and disadvantaged children. The reason for this suggestion is that low SES children differ little from middle SES children in Level I ability whereas they are generally found to be somewhat inferior in conceptual learning and reasoning ability.

Considerably large number of studies directed towards investigating aspects of two-level theory provide support for the Jansen's findings (Vernon, 1931). Jensen himself has continued to expand and modify the theory on basis of his own extensive research (Jensen, 1973, 1974, 1982, Jensen and Figueros, 1975). In a recent review of Level-I Level II research (Vernon, 1981) it appears that different SES groups show marked differences on Level II tests than on Level I. The correlation between Level I and Level II abilities is greater in middle and high SES than low SES groups. Factor-analytical studies in this area have borne cut basic psychological distinction.

The Level I-Level II theory was originally formulated to account SES rather than race and other group differences in IQ. Jensen (1968) postulated his levels theory working with four to twelve years old children from low and middle SES groups. He found no significant differences between the means or standard deviations of the groups on digit span, whereas the group differed by approximately 19 IQ points, low SES subjects in the IQ range from 60 to 80 points obtained much higher scores on a number of test of Level I than middle SES subjects in the same IQ range. Relationship between intelligence and enrichment of environment, particularly in term of socio-economic status (SES) has been very exhaustively dealt by Jensen (1970). Generally the magnitude of correlation has been as high as 50. Cattell (1942) inter-correlated prestige ratings of occupation, annual income, and education and found average value in the low 80's and 90's. Kehl and Davis (1955) analyzed nineteen measures of social class and found that most were substantially inter-correlated but that income correlated less well.

A number of other workers have found that low IQ - middle SES subjects tend to perform poorly on Level I tests whereas low IQ low SES subjects often obtain average or above average scores on tests of Level-I. Wallace (1970) concluded that the low SES children obtained significantly of higher scores on several measures of Level I. The low SES children also demonstrated greater social competence, as assessed by the vinel and social maturity scale, and greater mator proficiency.

Des and Chambers (1969, 1970) found that a group of high SES retardates obtained significantly lower scores on visual and verbal short term memory (Level I) tasks than low SES retardates, Orn (1970) and Orn and Das (1972) have also obtained some results for other groups of low and high SES retardates. Even though the high SES subjects had a slightly higher mean IQ and a significantly higher average mental age, the low SES subjects obtained significantly higher scores on visual and auditory short term memory tests.

The SES index used in 'collaborative perinatal study' was essentially the average of ranting's on parental occupation, family income and had a household education. Results of this study show increasing mean IQ's with increasing SES for blacks and whites alike. The findings also indicate that the mean differences between black and whites increases on SES increases. Loehlin, Lindsay, and Spuhler, (1975) have reviewed many other studies of SES IQ correlations in which social differences in the magnitude of the correlations were not observed.

In a Canadian sample Das (1973) investigated the relationship between IQ and SES by dividing the SES into seven hierarchical class intervals and after obtaining the mean IQ of the children in each of those class intervals. A striking linearity was observed. The IQ showed a significantly consistent increment from the lowest to the highest SES levels ranging from a mean of 90.33 in the highest to 78.66 in the lowest. The relationship between father's occupation, mothers education, SES of parents with child's IQ were respectively 26, 29, 27 based on 1294 children. A similar findings has been reported by Jachack and Mohanty (1974) and Das and Panda (1977) on Indian children of differing SES and intelligence.

Similar findings have been reported by a number of other workers. O'Meara (1975) observed that a group of low SES 8 and 9 years children obtained slightly but not significantly higher digit span score than middle SES children, although they scored considerably lowest on the Cattell Culture Fair Test. In a study by Harris (1973) low SES children scored significantly lower than the middle SES children on the RPM, but no difference was found on digit span. Similarly, scrofani et.al., (1973) found no difference between low and middle SES fourth graders on digit span, despite almost 30 IQ points difference in favor of the middle SES group on a modified version of the Peabody Picture vocabulary Test. Keogh and Macmillan (1971) compared low SES black and middle SES white third graders on digit span test. The low SES-low IQ children obtained higher digit span scores than the middle SES low IQ children, although the differences was not statistically significant.

Green and Rohwer (1971) of twenty low SES, twenty lower middle SES, and twenty middle SES black fourth graders reported significant SES differences on forward digit span and CPM(Level II) but contrary to prediction from the level's theory, the SES difference was less on the CPM than on forward digit span. Among groups of low and middle SES Kindergarten children, Turner, Hall and Grimmett (1973) conclude that the middle SES children obtained significantly higher scores on forward digit span. This result may suggest that Level I abilities develop earlier in middle SES than in low SES children. It may also reflect the observations Keeton and Mc Clean (1976) that low and middle SES children appear to perform digit span recall using different processing strategies. In Keeton and Mc Clean's study, middle SES seven year olds rehearsed the stimuli during presentation to a greatest extent than low SES children.

Bentley, Rohwer and Lynch, (1968), and Nassaro, (1973), Green and Rohwer, (1971) reported that they found no significant relationship between digit span, paired associates, and SES in a sample of kindergarten to sixth graders. Vernon and Mitchel (1974) found no differences between low SES and middle SES fifth graders on eleven measures of Level I, although they did find significant differences between the groups on three other tasks which they classified as Level I measures. Specifically, middle SES children obtained higher scores on paired associates, free recall of categorised items and letter spen.

Mackenzie (1981) tested 525 fifth grade children from low and SES on digit span, paired-associates, PPVT, and RPM. Low SES and middle SES subjects did not differ on both the Level I tests. But the other three hypotheses from Jensen's theory were not borne out.

Stankov, Horn and Roy, (1980) administered a battery of 27 abilities tests on a sample of 201 high school students. Findings differ from Jensen's hypothesis. The differences between different SES groups were significant for Level I as well as for Level II. SES groups differed in both the kinds of ability in same magnitude. Similarly, the regression slopes for Level I and Level II in different SES groups are not notable different.

Majority of the studies indicates that although low and middle SES groups may differ considerably intelligence tests and other measures of Level II, there are much smaller differences between their scores on such measures of Level I as forward digit span, paired-associates, and free recall of unrelated items. The study by Turner (1973) found that low SES children may not have developed their Level I abilities to the same extent as middle SES children when they first go to school, while other studies cited indicate that they do not differ within a short time. A number of other studies have also supported Jensen's hypothesis that Level I and Level II are correlated to a greater degree in middle SES then in low SES groups, and that low SES low IQ subjects obtain higher scores on taste of level I then middle SES low IQ subjects.

Burt, (1959) noted several studies carried out in England which indicated that large differences in intellectual abilities exist between children from different SES groups. Among adults he suggests, the differences are even greater, and he interpreted this as being the result of upward and downward social mobility. Stodolsky and Lesser (1967) found consistent evidence of differences in intelligence between groups of high and low SES children, in favour of those from the higher classes. They also noted that differences were observable as early as four years of age and that they tended to increase with age.

Studies indicated that SES differences in intelligence relate to age of the subjects. Golden et.al. (1971) conducted a study on different SES groups, and find out no differences between the groups on a number of intelligence scales at 10 or at 24 months of age. Among three year olds, however, high SES children scored significantly higher on the stendford Binet. Their findings also support the study of Hindley (1962) which showed a similar emergence of SES differences in cognitive development at an early age among white children. Tyrenell and others, working with low and middle SES nursery school children, found SES differences in the ability to employ verbal mediation in a discrimination learning situation, low SES children were less able to attend to the relevant cues in the discrimination problem and demonstrated poorer transfer of learning than the middle SES children.

Similar findings have been reported by Harris (1973). He find out marked SES differences on the RPM. He also observed a trend towards increasing SES differences on a paired associate's task in higher graders, perhaps reflecting the greater ability of middle SES children to employ such Level II strategies as elaboration or verbal mediation. O'Meara, (1975) suggests that among older children, low SES eight and nine year olds obtained lower scores on cattell's intelligence test then middle SES children of the same age. Similar results were obtained with the PPUT, scrofani, 1973; and the performance sub tests of the wise, Samuel, 1977, Samuel et al (1976).

Most of the research evidence supporting the major hypothesis of Jensen's theory come from the data North American origin, by and large. The generalizability of the theory to sample from other cultures is yet to be tested. Considering the potential importance of the theory and the paucity of Indian data, present study was proposed to test some of the main aspects of the theory.

Further, the untenability of some of the major hypothesis of two-level theory in recent studies (Stankov et al. 1990s Mackansie, 1981) motivated the investigator to undertake a systematic study to test them on Indian population.

The present study, therefore, is aimed to study the Interaction of Jensen's level I and level II abilities with socio-economic status.

Main objectives of the study can be stated as under:

(a) To compare the distribution of Level I and Level II abilities in low and high SES groups.

(b) To study the correlation between Level I and Level II abilities with SES.

(a) There is likelihood of obtaining significant SES differences in Level II ability than Level I.

(b) Level II tends to show high correlation with SES than that of Level I.

Method

The present study was conducted on a sample of 210 male subjects randomly selected from different high schools in Bhiwani district of Haryana. To obtain the random samples of low SES and high SES children, six high schools were selected at random from all the schools in the district. All the selected schools were controlled by Haryana school Education Board, and were prescribed with the same course of syllabi. Thus, the educational environment and educational stimulation may be regarded as homogenous as well normal. Schools were used as units of selection to provide a broad and representative range of the SES classes in rural Haryana. In these selected schools, there were two or more sections for 9th and 10th classes. Only one section was randomly selected from different sections for each class.

A total of 210 male students were included in the sample. All these subjects were supplied with SES scale Rural (Pareek and Trivedi, 1964) to obtain information regarding their SES. SES scores of all the subjects range between 11 and 45 with a median of 26 scores. Subjects scoring above 26 ware classified as high SES (N=108) and the subjects scoring below 26 were classified as low SES (N=102). Two students in low SES group were absent on the day of psychological testing. All the subjects were male between fourteen and eighteen years of age. The mean and standard deviations of age of

the low and high SES groups are, mean = 15.28, SD.89 and mean = 15.31, SD = .91, respectively.

The main objective of the present study is to compare the distribution of Level I and Level II abilities among low and high SES groups. Level I mental ability was measured by using digit span tests and paired associate learning. Digit span and paired associates have been regarded as pure measures of Level I ability (Jensen, 1973, and Mackensie, 1994). The Raven's standard progressive Matrices (RPM) was used as a measure of Level II intelligence. This non-verbal reasoning test is regarded by Jensen, (1971, 1973) and other as one of the best measures of Level II ability. Backward digit span, which has been found highly loaded on general-intelligence (Jensen and Figureaa. 1975), was also employed. The brief description of measuring instruments as follows, the code name by which each test was labeled appears in parenthesis after its name.

1. Forward Digit span (FDS) And Backward Digit span (BDS) Tests.

The tests for FDS and EDs are comprised of a sequence of randomly ordered digits some what as included in WISC-R FDS test includes three lists of the digit series of from three to nine digits (zero was never used). BDS has series of two to eight digits. The digit series were arranged in a manner that no digit was ever repeated in the same series and no any two digits ever occurred in the normal serial order, such as 5-6 or 2-3.

The digit series are presented orally in a loud-voice, at the rate of one digit per second. The subjects repeat as many digits as they can memorize or recall at the end of each series. Each sub test requires special instructions.

In BDS subject is instructed to repeat the digit series in the same order immediately after the last digit has been spoken by the experimenter, while in BDS subject is instructed to repeat the digit series in the reverse order. Two unscored practice trials are given on each test to ensure that the subject understands the task. Digit span-tests are very simple to administer and requires about ten minutes of time. The score was the number of digits in the series recalled correctly in two presentations out of three.

2. Paired-Associate Learning (P.A.)

Paired Associate test is comprised of eight number word pairs, Three separate pairs were meant for practice. Paired associate list was presented visually with the help of a exposure window. The study interval was kept constant although i.e., two seconds per pair. Subjects were asked to learn to associate numbers and words. They were required to produce the word upon the appearance of number with which it had appeared previously. Subjects were allowed to anticipate and produce correct response for each stimulus unit during anticipation interval of two seconds each. The score was the total number of correct pairs reproductions.

3. Standard Progressive Matrices (SPM):

Standard Progressive Matrices (Raven, 1960) is a widely used culture fair test of reasoning ability of figural patterns and geometric forms which depend minimally on past learned knowledge and skills. The test was devised with the aim of measuring as completely as possible in a single test the education process that spearman (1923) regarded as the essence of intelligence. The SPM covers the widest possible range of reasoning ability and to be equally useful with persons of all ages, 5 years children to superior adults. In numberless studies, the SPM has been found to have high loadings on

"g", general factor of mental abilities. Thus it can be considered as a good measure of general intelligence.

4. Socio-Economic status Scale (Rural):

The socio-economic status (SES) of subjects was assessed by using SES scale-Rural (Pareek and Trivedi, 1964). The scale consists of nine main items. The items of the scale relate to the both the head of the family and the family itself. It includes occupation, education, and social participation of the head of the family, the cast of the family, their land, farm power, house, material possession and the general nature of the family. According to the authors of this scale, these items are significant in measuring SES level of a rural family. The first seven items of scale are of graded scale type, while the items 8th and 9th are additive in nature.

The scale has the advantage of objectively of scoring and simplicity of administration. It can be used with an individual as well as with a group of subjects. It hardly takes 15 minutes to administer.

Authors of the scale have reported that the scale has satisfactory validity and reliability, co-efficient of the stability was calculated for the present scale by the test-retest method, which is quite high and equals to .87. Interlude reliability is also significant the rank order correlation obtained between the scores given by two parsons was very high (.93). Findings show a very high concurrent validity of the scale, demonstrating its sensitivity to discriminate between upper and low classes. Factor analysis of the item scores also revealed satisfactory construct validity. Thus the scale can be considered as a good measure of SES level of rural families.

In an attempt to fulfill the research objectives and to verify hypothesis of the study the obtained data were processed and appropriately analysed applying't'-test, correlational analysis, principal component analysis with varmix rotation.

Results and Discussion

The present study was undertaken to verify the three essential aspects of the two-level theory, vis. Social class differences in Level I and Level II abilities, inter action of Level I and Level II with SES, and psychological distinction between these two kinds of abilities. In order to test research hypothesis related to these aspects of the theory data were analysed by employing t-test for mean differences and Pearson's-r.

SES Differences in Level I and Level II Abilities:

The mean and SD's of scores on the measures of Level I and Level II abilities for low SES group, high SES group and total sample are shown in the table No.1. These results have also been shown in Figure- I. The means of low SES and high SES groups have been presented in figure for easy comparison (Figure 1). It is evident from the results that high SES group scored high on 5 PM in comparison to low SES group, High SES subjects scored 31.39 on the average, whereas, low SES subjects obtained a mean score of 27.55. t-test was applied to test the significance of mean differences, t-values for different variables are presented in Table-2. t-value of mean differences in low SES and high SES subjects on SPM in 2.51 which is significant beyond more then .02 level of confidence (d_f = 206) (Table 1 shown in the next page).

High SES scored more on Level I measures vis. Forward digit span (FDS), backwards digit span (BDS), and Paired Associate learning (PA). But these groups do not differ

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significantly on any of these measures. The mean score on FDS in low and high SES group is 5.15 and 5.24 respectively (t=.37). Mean score in low and high SES groups on BDS is 3.48 and 3.53 respectively. t-value of the mean difference is .68 (df=206). We see that SES groups do not differ significantly on PA also, although the difference on this measure is more than twice the difference on FDS and BDS. Mean score being 4.62 and 4.75 for low and high SES group, respectively. It may be noted that the t-value of their mean difference is also two times greater than the t-value of mean difference on FDS and BDS.

Table 1

Mean S.D. and skewness of the variables for low SES (N=100).

High SES (N=100) and Total sample (N=200)

Variables	LOW SES			HIGH SES			TOTAL SAMPLE	
	Mean	S.D.	S.K.	Mean	S.D.	S.K.	Mean	S.D.
SPM	27.55	11.30	.15	31.39	10.75	.12	29.54	11.18
FDS	5.15	.77	.19	5.24	.76	.12	5.19	.77
BDS	3.48	.71	.04	3.53	.79	.19	3.51	.75
PA	4.62	.87	.10	4.75	.75	.08	4.68	.82
AGE	183.38	15.20	-	184.55	15.70	-	103.99	15.47

N.B. = Age is recorded on months.

These results support the first hypothesis expecting significant SES difference in Level II ability rather than Level I. This finding is consistent with the findings reported in some earlier studies (e.g. orn and Das, 1972: Jensen, 1974; Mackenzie, 1981).

TABLE 2

Summary of t- test

S. No.	Variables	t	P
1.	SPM	2.51	.02
2.	FDS	.87	NS
3.	BDS	.68	NS
4.	PA	1.16	NS
5.	Age	.54	NS

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A more general corollary of the first hypothesis is stated in terms of second hypothesis, i.e. Level I ability is not correlated with SES and Level II ability is positively correlated with SES. This hypothesis was tasted by obtaining correlations between SES scores and scores on all the cognitive variables of total sample (N=208). The obtained inter correlations have been reported in Table 6.

A correlation co-efficient of .31 was obtained between SES and SPM score. The correlation is significant beyond .001 level of significance. SES is correlated poorly with FDS and BDS. However, it is correlated significantly with paired associated, correlation of .11 between FDS and SES .13 between BDS and SES, and .18 between paired associates and SES were obtained. These results indicate that Level II abilities are more strongly associated with SES than Level I abilities. This hypothesis has borne out in both the analyses viz. mean differences and inter correlations.

Jensen's theory expects SES differences in BDS. In a number of studies (Jensen and Figureros, 1975, Darolis, 1985; Singh, 1986) BDS appeared to be a measure of Level II than that of Level I. If this is the care it can be predicted from Jensen's theory that BDS tends to show more association with SES in comparison to FDS and PA. But in present study SES groups do not differ significantly on this measure.

Correlations with SES groups

After ascertaining that the data meet the requirement of Pearson Product moment correlation, co-efficients of correlation were obtained for all the four ability measures, separate correlations were computed for low SES and high SES subjects. Obtained correlations have been reported in Table 4. Correlation coefficients for low SES group are entered in upper diagonal of the inter-correlation matrix and the correlations for high SES groups are reported in lower diagonal of the matrix. Inspection of Table 4 reveals that the correlations between Level I and Level II ability measures range between .24 and .32 in high SES group, whereas, the correlations between these two classes of ability range from .16 to .30. The highest correlation in high SES group is between Raven's Matrices (SPM) and Forward Digit span (FDS), i.e. .32. The correlation coefficient is significant beyond .005 level of significance. SPM and BDS yielded a correlation of 24 ($p < .02$). Similarly, a significant positive correlation was estimated between SPM and Paired Associates ($r = .23$, $P < .01$).

In low SES group also SPM is positively correlated with FDS, BDS, and PA. Level I measures FDS, BDS and PA correlate .16, .30 and .23 with SPM, respectively. Except the correlation between SPM and BDS the correlations in low SES groups are low than in High SES. The average correlation between Level I and Level II ability measures in high SES is. 28, whereas the average 'r' between these measures in low SES group is .23. We see that although the low and high SES groups do not differ significantly in the overall magnitude of correlations between SPM and Level I measures, the results are in theoretically expected direction. It can be noted however, that the correlation between SPM and FDS in high SES differ markedly than the correlation in low SES group. The correlation between SPM and BDS in high SES is twice to the correlation in low SES group.

These findings reveals that the hypothesis of high correlation between Level I and Level II abilities in high SES than in low SES is partially proved.Inter correlations among Level I measures are positive and significant. Correlations among the measures viz, FDS, BDS,

and PA range from .37 to .67 in high SES group. In both the groups, BDS and PA are correlated with each other substantially (r=.67 and .57 in high and low SES group, respectively).

Forward digit span is highly positively correlated with paired associates (r=.63, P<.001). It reflects the fact that FDs and PA underlie similar cognitive processes, FDS is also significantly correlated with BDS (r=.36) but the correlation is not substantial. Similarly, PA is also significantly correlated with BDS (r=.31). These findings tend to suggest that SPM and BDS tap common factor of intelligence or BDS appears to be a measure of Level II rather than Level I, FDS and PA can be regarded as fair measures of Level I.

SES scores are significantly (positive) correlated with the scores on SPM (r=.31). Whereas, the SES has low correlations with FDS, BDS, and PA. However, the correlation between SES and PA (r = .18) is significant at .01 level of significant. But the correlations between SES and Level I ability tests are lower than that of between SES and SPM, a good measure of Level II.

The theory posits that greater socio-economic status (SES) differences effect on Level II ability but not on Level I (Jensen, 1968, 1970, 1974). In present study, this essential aspect of the theory was confirmed by the results in terms of mean differences among SES groups and SES- intelligence correlation. It was found that high SES subjects scored significantly higher than their low SES counterparts on SPM (Level II). But high SES and low SES groups did not differ significantly in their performance on Level II ability tests. This finding is in agreement with a number of earlier studies (Jensen, 1968, 1979, 1974, Haris, 1973, Turneta et.al.1973; Das, 1973, Mackenzie, 1981).

Another way to verification the assertion of this theory is to estimate relationship between SES and Level I- Level II ability tests. It may be noted that SES bears a significant correlation (r= .31) with intelligence (SPM scores), whereas it has low association with Level I measures. Although the correlation between SES and SPM (Level II) in present study is not of high magnitude, it is comparable with the results of studies conducted on American population. Jencks (1972), reported a correlation co-efficient of.30 between SES and non-verbal intelligence in his review of American studies, similar findings have bean reported by Mackenzie (1981). It can be concluded that SES is more associated with general form of intelligence (Level II) than any other form, i.e. Level I. The reason for this, according to the theory, is that social mobility in a developing society (Like in India) is more dependent upon general intelligence (Level II) than upon memory (Level I).

Jensen's (1970) predictions regarding different patterns of skewness for Level I and Level II abilities in low and high SES groups. The theory postulates that Level II ability is positively skewed for low SES population and negatively for high or middle SES population. In contrast to it Level I ability in normally distributed in both the groups. These predictions are based on the assumption that Level II ability is normally distributed in the general population and as has been verified that the mean for high SES group is higher than low SES group. But no convincing data to support these predictions have yet been presented by Jensen (Mackenzie, 1981). Findings, in present study, are not consistent with these predictions from the theory. None of the distributions of stores on SPM (Level II) is found to be skewed to more than a slight degree. Certain other studies have also raised serious doubts regarding the tenability of this hypothesis of negatively

and positively skewed distributions of Level II ability in high SES and Low SES group, respectively.

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