CHAPTER V

LANGUAGE CHANGE AMONG THE SELECTED TRIBES IN INDIA:
DETERMINANTS AND CORRELATES

1. INTRODUCTORY STATEMENT

In this chapter an attempt has been made to present the empirical findings of this research. The data generated through field-work have been analysed to measure the degree of linguistic diversity and the linguistic exposure of the selected tribal groups such as the Bhils, Korkus, Mudas and the Santals. A correlation analysis shows the pattern of association between parameters of language change and a set of variables having a bearing on such a change. Linguistic diversity has been measured for each of the tribes. Secondly, the degree of linguistic exposure has been found out by developing an index. The formula propounded by Greenberg (1956) to measure the linguistic diversity has been modified. The data for this exercise have been disaggregated for males and females and for different age-groups. The purpose of this exercise is to understand the magnitude of linguistic exposure of the selected tribal communities as a process leading to the language change. Thirdly, the degree of bilingualism and multilingualism has
been analysed for both male and female for various age groups. Fourthly, a correlation analysis has been attempted. The data for this exercise have been collected at the household level for the selected tribes. Further, a regression model has been used to understand the degree of language change and its relationship with a set of socio-economic variables.

2. LINGUISTIC DIVERSITY AMONG THE TRIBES

The tribes under study were found at various degrees of linguistic diversity. The magnitude of variation in the linguistic diversity was noticed not only as inter-tribal but also intra-tribal phenomenon. For example, the Mundas of Ranchi town, the Bils of Banswara town and the Korkus of Punasa, Udaipur, Richhi and Pangra villages speak traditional dialect at their homes and use regional language or Hindi outside their homes. The percentage of such people in these areas was more than 75 and therefore, they may be classified as areas with maximum diversity. On the other hand, the Mundas of Litingdi, the Bhils of Wanerapara, Umedgarhi, Nai Abadi, Regania and the Santals of Dumka town may be classified as medium level of linguistic diversity. In these areas the share of tribes speaking subsidiary language varies from 25 to 75 per cent. The minimum degree
of linguistic diversity was noticed among the Korkus of Kalamkala and Kutbi and the Mundas of Kula Buru and Bande villages. In these areas the use of subsidiary language is less than 25 per cent.

The above classification of linguistic diversity is based on the investigations carried out during the field work. The knowledge of subsidiary language among these tribes ranges from 0 in Mirpur to 100 per cent in Punasa, Pangra, Richhi, and Udaipur villages and Ranchi and Banswara towns. The percentage variation is classified into three groups i.e. Maximum diversified, Medium diversified and Minimum diversified. Areas with more than 75 per cent of people using subsidiary language along with their mother-tongue are considered the areas of maximum diversified, while the areas having less than 25 per cent of people using subsidiary language are classified as the areas of minimum diversified. Areas falling under 25 and 75 per cent of people speaking subsidiary language are considered as medium degree of language diversified (table 9).
TABLE 9

AREAS OF LINGUISTIC DIVERSITY

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Diversity</td>
<td>75</td>
<td>Ranchi town, Banswara town, Punasa, Udaipur, Richhi, and Pangra.</td>
</tr>
<tr>
<td>Medium Diversity</td>
<td>25-75</td>
<td>Dumka town, Wanera Para, Umedgarhi, Nai Abadi, Regania and Litingdih.</td>
</tr>
<tr>
<td>Minimum Diversity</td>
<td>25</td>
<td>Kalamkala, Kutbi, Kula Buru and Bande.</td>
</tr>
</tbody>
</table>

3. LINGUISTIC EXPOSURE AMONG THE TRIBES

An attempt has been made here to measure the degree of exposure among the tribal communities. Since the degree of exposure may not be scientifically measured with the help of percentages, a method has been developed which is a modification of a model propounded by Greenberg (1956) to measure the degree of linguistic diversity. A modification in his formula has been used to find out the degree of linguistic exposure. In this method the value of index will vary from 0, indicating hundred per cent exposure, to 1, indicating no exposure. The formula may be expressed as
\[ E(m^2 + f^2) \]
\[ E = 1 - \frac{\text{--------}}{n} \]

where

- \( E \) = exposure index
- \( m \) = exposure in unity for males
- \( f \) = exposure in unity for females
- \( n \) = number of age-sex groups in a village.

Note: to obtain unity average percentage is divided by one hundred.

3.1 Methodological Procedure

The data for this exercise have been generated from the field by giving a set of Hindi words to the tribal people for different age groups including the male and female population. The number of words they knew was converted into percentage for all age groups and sexes. An average of percentages for different age and sex groups was calculated separately in different columns. These percentages have been divided by 100 to bring unity and these values have been squared. These squared values have been added and then they have been divided by the number of age-groups and then it was subtracted from one. The value closer to 1 indicating less exposure and the value closer to 0 indicating more
exposure. The process of calculation may be seen through the following illustration.

**TABLE 10**

**ILLUSTRATION FOR CALCULATING EXPOSURE INDEX**

<table>
<thead>
<tr>
<th>Village</th>
<th>Age and Sex groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M - F</td>
</tr>
<tr>
<td>A</td>
<td>0-19</td>
</tr>
<tr>
<td>Average</td>
<td>62</td>
</tr>
<tr>
<td>Divided by 100</td>
<td>.62</td>
</tr>
<tr>
<td>Squared value</td>
<td>.38</td>
</tr>
<tr>
<td>Total</td>
<td>.38+</td>
</tr>
</tbody>
</table>

\[
\begin{align*}
= & 2.50/8. \\
= & 0.31 \\
1 - 0.31 = & 0.69 \text{ (index value)}
\end{align*}

**3.2 FINDINGS OF EXPOSURE INDEX**

The purpose of this exercise is basically to find out the value of exposure index which may be used for a comparative analysis to study the variations in the degree of exposure among the tribal communities. This index may also be used to study inter-tribal as well as intra-tribal
linguistic exposure. The findings of this exercise reveal that there are 4 Korku villages such as Pangra, Punasa, Udaipur, and Richhi in which cent per cent Korkus are exposed to Hindi. On the other hand, the Korkus of Mirpur and Kutbi are least exposed. The exposure index of these two villages are 0.93 and 0.86 respectively. The Korkus of KalamKala are fairly exposed in which the value of exposure index is 0.65.

The Bhils in Banswara town were found cent per cent exposed to Hindi whereas the Bhils in Regania, Nai Abadi and Wanera Para are fairly exposed. These villages scored 0.62, 0.56 and 0.57 index values respectively. Umedgarhi was found under the category of more exposed village with the index value of 0.37.

The Mundas of Ranchi town were found the most exposed with a total exposure index value of 0.14 whereas the Mundas of Bande, Kula Buru, were the least exposed to Hindi. The index value for these two villages are 0.79 and 0.94 respectively. The index value for Litingdih is 0.34 which may be considered as more exposed Munda village than the Kula Buru and Bande villages (Appendix - I).
The Santals of Dumka town fall under the category of fairly exposed to Hindi with an index value of 0.64.

Inter-tribal variations in the degree of exposure may be seen through the following table for the purpose of comparative analysis.

**TABLE 11**

**INDEX OF EXPOSURE**

<table>
<thead>
<tr>
<th>Index value</th>
<th>Category</th>
<th>Name of village/town</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00</td>
<td>Cent percent exposure</td>
<td>Punasa, Udaipur, Richhi, Pangra, Banswara town</td>
</tr>
<tr>
<td>0.25</td>
<td>most exposed</td>
<td>Ranchi town</td>
</tr>
<tr>
<td>.25-.50</td>
<td>more exposed</td>
<td>Litingdih, Umedgarhi</td>
</tr>
<tr>
<td>.50-.75</td>
<td>fairly exposed</td>
<td>Regania, Nai Abadi, Wanera Para, Kalam Kala, Dumka town</td>
</tr>
<tr>
<td>.75-1.00</td>
<td>least exposed</td>
<td>Bande, Kula Buru, Mirpur, Kutbi.</td>
</tr>
</tbody>
</table>

It was found that out of 18 (3 town and 15 villages), 5 fall under the category of cent per cent exposed. It includes 1 town and 4 villages. Ranchi town in which Munda tribes were selected for the case study was found the most
exposed tribe. The Bhils of Umedgarhi and Mundas of Litingdih fall under the category of more exposed. The Santals of Dumka town and the korkus of Kalam Kala and the Bhils of Regania, Nai Abadi and Wanerapara can be grouped under one category may be called as fairly exposed. The Korkus of Kutbi, and Mirpur, the Mundas of Bande and Kula Buru may be classified under the last category known as least exposed. The Santals of Surajbeda could not be classified because of lack of information and school teachers of Murhu missionary school were also kept away because they are qualified graduates and having sufficient knowledge of Hindi.

4. BILINGUALISM/MULTILINGUALISM IN INDIA

In a multilingual country like India, individual as well as societal bilingualism is widespread (Annamalai, 1980: 1). The study of bilingualism becomes of great importance in language planning and for national development and national integration (Ghose, 1969: 464). The great tradition of India being a multi-lingual society has ensured the emergence of mass bilingualism (Bhatnagar, 1977: 149). Khubchandani (1972) pointed out that bilingual returns of 1961 census show that Hindi-Urdu and English together cover more than half of the entire bilingual population in the
The share of Hindi-Urdu is 26.8 per cent and the remaining 25.7 per cent bilingual population belong to English. The percentage of bilingual population is least in Hindi-Urdu-Punjabi belt (restricted only to 5.9 per cent). The data adduced by Apte (1971) shows the average percentage of bilingualism in Hindi states was 5.17 per cent while in non-Hindi states it was 9.57 per cent. Among the major non-state languages was 18.84 per cent and the minor languages had 42.14 per cent. The study revealed that high degree of bilingualism is associated with the small national groups especially if they are in minority within larger linguistic communities (Glyn lewis 1972 : 46).

4.1 BILINGUALISM/MULTILINGUALISM AMONG THE SELECTED TRIBES

The degree of bilingualism varies from tribe to tribe as well as from region to region. This variation was noticed not only between the male and female population but also among the various age-groups. It was also found that the younger the age-group, higher the degree of bilingualism. Bilingualism was found more prominent among the male group than the female population. On an average the percentage of bilingualism varies from 0 in Mirpur to 100 per cent among the Mundas of Ranchi town, Udaipur, Richhi, Pangara, Punasa and Banswara town. Except Umedgarhi which has fairly high
percentage of bilingual population, the remaining villages/towns have been classified under the low degree of bilingualism in which less than 45 per cent population reported as bilingual, the lowest share of bilingual population was reported from Kalamkala (1.4 per cent) and Kula Buru (4.8 per cent) only (Appendix II). The appendix also reveals that the Mundas of Ranchi town, the Korkus of Pangra, Udaipur Richhi and Punasa and the Bhils of Banswara town were hundred per cent bilingual. On the other hand, the Mundas of Bande, the Korkus of Kalamkala, Kutbi, and the Santals of Surajbeda were least bilingual. None of the Korkus of Mirpur was bilingual. The percentage of bilingual population varies from 25 to 50 among the Bhils of Regania, Nai Abadi, Wanera Para, among the Mundas of Litingdih and among the Santals of Dumka town. About 58 per cent Bhils in Umedgarhi was found bilingual.

A comparative analysis of inter-tribal bilingualism reveals that the Korkus and the Mundas may be classified into one group in which this phenomenon is more as compared to Bhils and the Santals. On the other hand, the degree of multilingualism among the Santals and Bhils was less than the Mundas. On an average the Mundas recorded 3.9 per cent multilingual population followed by the Santals with 1.8 per
cent and the Bhils with 1.0 per cent only. None of the Korkus reported as multilingual. It was found that the degree of variation of bilingualism or multi-lingualism has a direct relationality with literacy, urbanization, etc. which will be studied in the following section.

5. CORRELATES OF LANGUAGE CHANGE

5.1 EXPLANATION OF VARIABLES

From the above discussion it can be concluded that language change is not an independent cultural process. It depends on a great deal of the changes in other cultural and socio-economic changes. Considering the above discussion it can be argued that language change is dependent on factors such as the share of tribes to total population, urbanization, literacy, economy particularly change in traditional occupation. Another important agent of language change is the conversion of the tribes into Christian or Hindu system. The percentage of male and adult sections of tribal population are also considered to be the cogent in bringing about such change. It is to be noted here that villages under study were found cent per cent either language change or preservation of their traditional language therefore, percentage of bilingual tribal
population is taken as dependent variable at household level in place of language change. Variables which are considered as explanatory variables are defined and their relationship with language change is also formulated in the following paragraphs.

5.1.1 Share of tribal population to total population

It is expected that in an area where percentage of tribe to total population is insignificant or low, very likely they will switch over to non-tribal language and will declare it as their mother-tongue instead of their traditional tongue. It is, therefore, assumed that lower the percentage of tribe as to the total population, higher will be the degree of language change while on the other hand low degree of language change will be associated with high concentration of tribal population.

5.1.2 Level of urbanization

The development of urban centres in the tribal areas has been considered an important factor in bringing about language change among the tribal people. In other words, it can be said that relationship between the level of urbanization and language change is positive. It means that higher the level of urbanization in an area there will be a
high degree of language change. Besides this, the percentage of tribes living in urban areas is considered another most important factor leading to language change. Those tribes who have already settled in urban centres and became part and parcel of the urban environment have declared non-tribal language as their mother-tongue. These urban tribals have lost their cultural identity because they could not maintain their contact with their traditional people who still live in hilly and forest areas and preserve their cultural identity. It is assumed that percentage of tribes living in urban areas will have positive relationship with language change.

5.1.3 Economic Conditions

It is also found that the high income group of tribal people are more inclined to language change than that of the poors or low income group of people. The rich tribals are not only more mobile and used to visit urban centres frequently where they come across the people having different culture and language but also send their children to schools in which they are taught either in English or regional language. Above all these, in order to maintain hierarchy in their tribal society as well as to feel closer to the national mainstream, they consciously declare non-
tribal language as their mother-tongue. For the purpose of analysis this variable is defined as per capita income of the tribal population. It can therefore be expected that higher per capita income will show high degree of language change.

5.1.4 Literacy

In most of the tribal areas education is imparted invariably in non-tribal languages which plays a vital role to bring about language change among the tribal people. It is therefore, assumed that higher percentage of literacy among the tribes will be accompanied by the higher degree of language change whereas it will have a negative relationship with illiteracy.

5.1.5 Change in Traditional Occupation

With the growth of urban centres in tribal areas, a small section of tribal workforce has been engaged in non-traditional economic sector i.e. in secondary and tertiary activities. Since they are few in number, they have been assimilated into the majority cultural groups. Therefore, linguistically it is difficult to find difference between the tribes and non-tribes who are working together in these two sectors. For the purpose of analysis this variable is
defined as the percentage of tribes engaged in non-primary sectors. It is expected that tribes engaged in these sectors will have a positive relationship with language change whereas it will have a negative relationship with the tribes engaged in the primary sector.

5.1.6 Changes in belief system

The conversion of tribes into the Christian fold and Hindu religious system has a great bearing not only on the tribal cultures but also on language. Most of those who have accepted Christianity adopted English as their language. They adopted different regional languages while embracing Hinduism. It is, therefore, assumed here that percentage of Christian tribes and percentage of Hindu tribes will have a positive relationship with language change whereas they will continue their old language if they preserve their original faith.

5.1.7 Age and Sex

Age and sex groups are considered another important factor of language change. The young and adult section of tribal population who are under 45 years of age are mentally prepared to accept such change while older people give importance to their traditional culture and social values.
and do not accept such change. Similarly male groups of population as against to female is more mobile and frequent interacting with non-tribal people and as a consequence they bring changes in their society. It is also found that the male population change themselves faster than their counterpart. For the purpose of analysis these variables are defined as percentage of male population to the total tribal population and secondly, the percentage of tribes under 45 years of age. It is expected that both these variables will have a positive relationship with language change whereas the older generation and the female may have a negative relationship with language change.

An examination of scatter diagram of dependent and independent variables reveals that there is almost linear relationships between Y and Xs. Therefore, it is argued that a linear model of cause and effect may be employed to assess the magnitude and direction of the causation in this model of language change. The most suitable method to evaluate this model of language change is stepwise regression analysis. This model includes variables stepwise till the $R^{-2}$ starts to decrease.
5.2 RESULTS OF CORRELATION AND REGRESSION ANALYSIS

5.2.1 Results of Correlation Matrix

The correlation matrix given in table 12 is based on secondary data at the district level. It highlights the simple correlation between dependent and independent variables as well as among the independent variables also. From the present correlation matrix it is evident that none of the correlation coefficients is very high between dependent and independent variables. It simply implies that the relationship between dependent and independent variables is weak. Out of 9 independent variables, 6 variables (i.e. percentage of urban population, percentage of tribes in urban areas, percentage of tribes engaged in non-primary activities, percentage of Hindu tribes, percentage of male tribes and percentage of tribes under 45 years of age) are positively correlated with the dependent variable (i.e. language change). The remaining 3 independent variables (i.e. percentage of tribes to total population, percentage of literate tribes and percentage of Christian tribes) are negatively correlated. The value of correlation coefficients varies from +0.235 to -0.257. Since these values are not closer to 1, there does not exist a strong relationship between dependent and independent variables. It is important to note that there is a negative correlation between dependent variable (language change) and independent variables.
### TABLE 12

**CORRELATION MATRIX BASE ON DISTRICT LEVEL DATA**

<table>
<thead>
<tr>
<th></th>
<th>Y</th>
<th>X1</th>
<th>X2</th>
<th>X3</th>
<th>X4</th>
<th>X5</th>
<th>X6</th>
<th>X7</th>
<th>X8</th>
<th>X9</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of language shift (Y)</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of urban population (X1)</td>
<td>0.079</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of tribe to total pop. (X2)</td>
<td></td>
<td></td>
<td>-0.257</td>
<td>-0.141</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of urban tribe (X3)</td>
<td></td>
<td></td>
<td></td>
<td>0.151</td>
<td>0.587</td>
<td>-0.172</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of tribes in M.P. sector (X4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.160</td>
<td>0.434</td>
<td>-0.252</td>
<td>0.690</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>% of literate tribes (X5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-0.026</td>
</tr>
<tr>
<td>% of Hindu tribes (X6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Christian tribes (X7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Male tribes (X8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of tribes under 45 (X9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$\$ significant at 1 per cent level.

$\$\$ significant at 5 per cent level.

$\$\$\$ significant at 10 per cent level.
(percentage of literate tribes and percentage of Christian tribes). In fact these two variables are important factors and expected to have a positive correlation with language change (table 12).

5.2.2 Results and Discussion of Regression Analysis

The regression analysis which is used here gives result according to the percentage of variation explained by the linear function. In this analysis which is a forward addition method, explanatory variables are included on the basis of their value of partial correlations and this addition is continued one after the other. The step from where the $R^2$ shows a decrease is considered suitable to be selected for the purpose of analysis. The regression equation of this functional relationship is presented in the following:

$$Y = -149.96 - 0.7693X_2^* + 1.18543X_3^* + 1.9942X_4^*$$

$$+ 0.21949X_5$$

$$R^2 = 0.1474$$

where $Y =$ percentage of tribes speaking non-traditional mother-tongue (Language change);

$X_2 =$ percentage of tribes to total population;

$X_3 =$ percentage of urban tribes to total tribal population;
\( X_\phi \) = percentage of Hindu tribes to total tribal population;
\( X_\Psi \) = percentage of tribes under 45 years of age;
* = partial regression coefficient significant at 99 per cent level of confidence;
** = partial regression coefficient significant at 90 per cent level of confidence; and
figures in parentheses are standard regression coefficients.

The results of regression equation reveal that all the significant variables included here explain 14.7 per cent variation in the language change. As such the power of the explanatory variables is very low though two of them are significant at 99 per cent and the remaining two are significant at 90 per cent level of confidence. The variables which emerged as significant explanation of language change in order of their standard regression coefficient are percentage of tribes to total population, percentage of Hindu tribes, percentage of tribes under 45 years of age and percentage of urban tribes to total tribal population. The concentration of tribal population in an area emerges as the most important determinant of language change. As it has negative regression coefficient which means that holding constant all other variables, percentage
of tribes to total tribal population \((X_2)\) explains the highest proportion of variation in the dependent variable \((Y)\). Almost the same magnitude of variation in \(Y\) is explained by \(X_3\). Judged by the magnitude of standard regression coefficient, the third position is taken by young and adult tribes \((X_4)\) that means younger the tribal population more will be the change. This variable contributes as much as 60 per cent of \(X_3\). Almost the same contribution to the variation in \(Y\) is made by \(X_3\).

From the above discussion, it can be concluded that a great deal of variation in the dependent variable remains to be explained. This perhaps may be as result of any one or a combination of the following reasons:

a) Inaccuracy in the collection of data during census operation; and

b) there may be error in the definition and empirical calculation of variables.

Secondary data, in most cases, at least language data in the case of tribal, are not reliable therefore, an extensive field-work was planned to generate data from the household which will not only rectify the census data but also give the true picture of linguistic situation among the
tribal population. It was found that the primary data which have been derived at the household level give a better result in order to establish the relationship between dependent and independent variables.

5.2.3 Results of Correlation Matrix

The correlation matrix given in table 13 is based on primary data generated at the household level. It reveals that there is a high correlation between dependent and independent variables. Out of the total independent variables, 3 variables (percentage of literate tribes, percentage of tribes engaged in non-primary activity, and per capita income) are positively correlated with dependent variable. The remaining two independent variables (percentage of male tribes and percentage of tribes under 40 years of age) are negatively correlated with the dependent variable. The values of correlation coefficients range from +0.59 to -0.0103. Since these values are closer to 1 therefore, it can be said that the relationship between dependent variable and independent variables (i.e. literacy and per capita income) is strong. It is evident from the values of correlation coefficients which are 0.59 and 0.51 respectively. The correlation between dependent variables and non-primary sector is positive but not very strong. The
TABLE 13

CORRELATION MATRIX BASED ON HOUSEHOLD DATA

<table>
<thead>
<tr>
<th></th>
<th>% of Bilingual tribes (Y)</th>
<th>% of literate (X₁)</th>
<th>% of tribes in M.P. sector (X₂)</th>
<th>per capita income (X₃)</th>
<th>% of male tribes (X₄)</th>
<th>% of tribes under 40 years (X₅)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Bilingual tribes (Y)</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of literate (X₁)</td>
<td>0.59</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of tribes in M.P. sector (X₂)</td>
<td>0.34</td>
<td>0.33</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>per capita income (X₃)</td>
<td>0.51</td>
<td>0.58</td>
<td>0.72</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of male tribes (X₄)</td>
<td>-0.26</td>
<td>-0.35</td>
<td>-0.06</td>
<td>-0.21</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>% of tribes under 40 years (X₅)</td>
<td>-0.10</td>
<td>-0.03</td>
<td>-0.17</td>
<td>-0.25</td>
<td>-0.07</td>
<td>1.00</td>
</tr>
</tbody>
</table>

$ $ Significant at 1 per cent level.

$ $ $ Significant at 5 per cent level.
value of correlation coefficient in this case is 0.34 only. The remaining two independent variables have very weak relationship with the dependent variable which may be seen from their value of correlation coefficients that is -0.26 in case of percentage of male tribes and -0.10 in the case of tribes under 40 years of age (table 13).

5.2.4 Results and Discussion of Regression Analysis

The results of regression analysis are presented in the following:

\[ Y = 23.23 + 0.39654 X_1 + 0.03572 X_2 \]

\[ (0.44537) \quad (0.25109) \]

\[ R^2 = 0.39066 \]

where \( Y \) = percentage of bilingual tribes to total tribal population;
\( X_1 \) = percentage of literate tribes;
\( X_2 \) = per capita income of the tribes;
* = significant at 99 per cent level of confidence;
*** = significant at 85 per cent level of confidence;
figures in parentheses are standard regression coefficient.

The results of the regression equation show that only two variables that is literacy and income are important
which can be considered as the cause of variation in Y. The first variable that is \(X_1\) is significant at 99 per cent level of confidence while per capita income is significant at 85 per cent level of confidence. These variables together explain 39.1 per cent variation in Y. If the second variable that is \(X_2\) is excluded from the regression analysis, the contribution of \(X_1\) remains 34.9 per cent. It means the inclusion of \(X_2\) improves the explanatory power by only 4.2 per cent. It is further confirmed by the magnitude of standard regression coefficient of these variables. It implies that at the household level, literacy is the most important and the only factor which explains variation in Y.

The study of the two sets of result from regression analysis very clearly indicates that there is some inaccuracy in the secondary data particularly in case of literacy which has a negative relationship with language change. On the basis of primary data it has the highest relationship with dependent variable and emerges as the single most important variable which explains about 34.1 per cent variation. It should also be noted that the regression model on the household level improves a lot of the explanatory power over that based on secondary data.
6. EXPLAINING THE UNEXPLAINED

From the above empirical study, language change which is taken as dependent variable is being explained only about 15 per cent in the case of secondary data based on district level and 39 per cent at the household level in the case of primary data. It implies that the independent variables which have been selected for the explanation of language change are not found much effective. It means that there are certain other factors which are playing a dominant role and could not be included in the present model. One of the most important and unaccounted explanatory variable may be suspected and deduced on theoretical ground is the location of the tribal villages and their accessibility to the non-tribal village, distance from urban centres, distance from communication lines, etc.

In the light of the above argument, a small exercise is attempted basically to find out that how much proximity explains the variation in language change in those villages which are selected for the study (Fig. 9). In order to do that percentage of tribal population to the total population of all those villages surrounding the villages under study was calculated to determine whether surrounding villages are tribal or non-tribal dominated or of a mixed type. It is to
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DISTRICT SANTAL PARGANAS

DISTRICT BANSWARA

DISTRICT RANCHI

DISTRICT KHANDWA

Fig. 9
be noted that a village having more than 75 per cent tribal population is considered tribal dominated whereas if it is less than 25 per cent, it is to be considered non-tribal village. If the share of the tribal or non-tribal population in a village varies in between 25 and 75 per cent it will be considered a mixed type. Besides, the distance of a village from the nearest town and communication line, the nature of the terrain of the village have also been taken into account while preparing the table to see the importance of location which is suspected to have more explanatory power for the explanation of the variation in language change among the tribal people (Appendix-III). An analysis of the above table reveals that the variation in the magnitude of language change in the selected villages is perhaps only due to the location of villages. If a village is located in tribal dominated area, its population shows the continuation of traditional tongue while located in non-tribal dominated area, the village shows a change in traditional language of the tribal population. In other words, it can also be interpreted as village surrounded by non-tribal villages shows a change in the tribals' traditional language whereas a village surrounded by tribal villages witnesses the preservation of tribal language. For example, Punasa, Richhi, Udaipur and Pangra villages surrounded by non-tribal
villages reveal change in the tribal language and adopted the regional language known as Nimadi. On the other hand, the remaining villages which are surrounded by tribal villages show a continuation of tribal language. The other parameters such as distance from the nearest town, communication line, and the nature of the terrain do not lead to any conclusion in the analysis of the language change among the tribes. It, therefore, can be concluded that nearness of the non-tribal village is the only important factor emerges out of this exercise for bringing about the variation in the degree of language change among the tribes in these villages.

REFERENCE