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# C-Line Variation in Three Tribal Populations of Andhra Pradesh, South India

V.L.N. Rao[1] and M. S. Babu[2]

*1. Department of Anthropology, Andhra University, Waltair, Andhra Pradesh, India*
*2. Population Research Centre, Andhra University, Waltair, Andhra Pradesh, India*

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ABSTRACT C-Line variation has been studied among three tribal groups namely Savara, Jatapu and Koya Dora from coastal districts of Andhra Pradesh. Out of all the C-line pattern types,ulnar type is found to be predominant followed by radial and proximal types. Bimanual and sex differences in these pattern types are found to be statistically significant only among Koya Doras.

The C-Line polymorphism has proved as an invaluable marker to elucidate ethnic variation in terms of transversality and termination of main lines of the palm (Rife, 1968, 1969; Plato, 1970). In the present study C-Line polymorphism of three tribal populations from Andhra Pradesh namely Savara, Jatapu and Koya Dora have been reported.

## MATERIAL AND METHODS

The data for the present study consists of 230 Savara (125 male and 105 female) and 250 Jatapu (125 male and 125 female) subjects from Bhadragri agency block, Vizianagaram district, and 402 Koya Dora (204 male and 198 female) subjects from Maredumilli agency block, East Godavari district of Andhra Pradesh. The techniques recommended by Cummins and Midlo (1961) for the collection and analysis of data and for the classification of the C-Line terminations were followed after Plato (1970).

## RESULTS AND DISCUSSION

The Ulnar (U) type is the most frequent type compared to other types in all the three population groups studied (Table 1). The frequency of ulnar type is found to be more among Savaras compared to Jatapus and Koya Doras, whereas the Radial type (R) is more among Jatapu than Savaras and Koya Doras. It is quite interesting that the proximal type (Px) is not observed in the Jatapus sample. The proximal (Px) type is found to be slightly more among Koya Doras compared to Savaras. Absence (X) of the C-line is found to be slightly more among Savaras than Koya Doras and Jatapus. Some variation has been observed for bimanual and sex differences, however, when compared statistically, not significant differences are observed among Savaras and Jatapus whereas in Koya Doras, these differences are found to be statistically significant.

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**Table 1: Distribution of C-Line Model types in Savara, Jatapu and Koya Dora of Andhra Pradesh**

| *Population* | *Sex* | *No.* | *Ulnar (U)* | | | *Radial (R)* | | | *Pfoximal (Px)* | | | *Absent (X)* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | *R* | *L* | *R+L* | *R* | *L* | *R+L* | *R* | *L* | *R+L* | *R* | *L* | *R+L* |
| 1. Savara | M | 125 | 58.40 | 72.00 | 65.20 | 37.60 | 23.20 | 30.40 | 0.80 | 0 | 0.80 | 3.20 | 4.80 | 4.00 |
| | F | 105 | 50.48 | 57.14 | 53.81 | 44.76 | 33.33 | 39.05 | 0.95 | 2.86 | 1.90 | 3.81 | 6.67 | 5.24 |
| 2. Jatapu | M | 125 | 44.00 | 53.60 | 48.80 | 53.60 | 40.80 | 47.20 | – | – | – | 2.40 | 5.60 | 4.00 |
| | F | 125 | 51.20 | 66.40 | 58.80 | 44.00 | 30.40 | 37.20 | – | – | – | 4.80 | 3.20 | 4.00 |
| 3. Koya Dora | M | 204 | 49.01 | 51.96 | 50.49 | 47.55 | 40.69 | 44.12 | 1.47 | 2.94 | 2.21 | 1.96 | 4.41 | 3.18 |
| | F | 198 | 55.56 | 60.61 | 58.08 | 40.90 | 28.28 | 34.60 | 0.51 | 2.53 | 1.52 | 3.03 | 8.50 | 5.80 |

M = Male; F= Female