

Molecular Genetic Study on the Status of Transitional Groups of Central India: Cultural Diffusion or Demic Diffusion?

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KEYWORDS Genetic status; Dravidians; Indo-Europeans; Austro-Asiatics; Central India

ABSTRACT Two different models of diffusion - demic and cultural - have been proposed as an explanation for the spread of languages. Recent studies have shown that in some cases the dispersal of the language was due to the demic diffusion while for others it is purely due to the process of acculturation. There are four major linguistic families in India which have largely their own geographic domain. However, there are a few situations in which the populations affiliated to different linguistic families cohabit. For example, we find the spread of the Indo-European and Dravidian tribal populations in the core/peripheral areas of the Mundari Austro-Asiatic groups. These non-Mundari groups have been termed as transitional populations to indicate that these populations originally were probably Mundaris. However, there has been no attempt to ascertain if these populations are genetically Austro-Asiatics or do they belong to the linguistic groups that they are currently affiliated to. To examine this we have analysed Y-SNPs and STRs data of the 13 Mundari and 7 transitional groups and compared with the other populations of relevant linguistic groups. The results suggest that the Indo-European transitional groups are genetically Mundari and have acquired the present language through the process of cultural diffusion, while in the case of Dravidian transitional groups, the spread of language seems to be due to the process of both, the demic and cultural diffusion.