

Germanic and its Network: Representing the Germanic Languages Using Median-Joining Phylogenetic Networking.

Abstract

The two aims of this study are, first, to use lexical items to generate networks which represent relationships between various members of the Germanic language family, and second, to examine the effects of different lexical coding strategies on the placement of language nodes in these networks. This is done using old and modern Germanic languages, as well as items from reconstructed Proto-Germanic. The data was coded using amino acid codes. The median-joining phylogenetic networking program Network has been used to process the data and to generate a series of networks under various conditions. Two semantic conditions were used, a strict and a lax, and three strategies were employed to handle missing data. The generated networks were then compared with each other and also with recognised classifications of the Germanic languages. The results indicated a general three-way division in the family, although there was variation at lower levels of classification. The results also indicated the degree to which choice of lexical item and coding strategy could influence results. The study shows that more research into the utility of such quantitative methods in linguistics is required.