Mutual intelligibility of Chinese dialects: An experimental approach

This study examines the mutual intelligibility between all 225 pairs of 15 Chinese dialects, in two main branches, i.e., six Mandarin dialects and nine non-Mandarin (Southern) dialects. The dialects (often distinct languages by western standards) differ in the richness of their lexical tone inventories, ranging between four (in most Mandarin dialects) to as many as nine (in Guangzhou/Cantonese). Judgment (how well do listeners think they understand the speaker?) and functional (how well do speakers actually understand the speaker?) intelligibility tests were used. A methodological question was whether (fast and efficient) judgment testing may serve as a viable substitute for (laborious) functional intelligibility testing. Dialect fragments were also monotonized in order to estimate the importance of pitch variation for intelligibility in tone languages. Also, a large number of objective linguistic distance measures were collected, either copied from the literature or computed by the author on existing language resources. A systematic attempt is made to determine how well the judgment and functional intelligibility scores can be predicted from each other and from (combinations of) objective linguistic distance measures.

Mutual intelligibility testing affords a single dimension along which the degree of difference between language varieties can be expressed. The hypothesis is tested that the agglomeration trees generated from mutual intelligibility scores correlate strongly with linguistic taxonomies expressing family relationships among languages and dialects.

This study should be of interest to linguists, more specifically dialectologists, dialectometrists and phoneticians.