

Frames of reference in language, culture, and cognition: The Mesoamerican evidence

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Ongoing research since the 1970s has shown that speech communities vary in the types of reference frames their members prefer for reference to small-scale space in discourse. Furthermore, the frame types used in cognitive tasks such as recall memory show similar variability, and a given population's linguistic preferences significantly predict that population's preferences in cognitive tasks (Pederson et al 1998; Levinson 2003; Majid et al 2004). Two interpretations of this alignment have been proposed. The Neo-Whorfian take advocated by Levinson, Pederson, and colleagues holds that the use of particular reference frame types represents learned cultural knowledge, which is transmitted and diffused through observable behavior, including prominently speech and gesture. In contrast, Li & Gleitman (2002) argue that all frame types are innately available to all populations and that the observed variable preferences in linguistic and cognitive tasks are the result of shallow and easily mutable adaptations to the environment and factors such as literacy and education (cf. also Li et al 2011).

Li & Gleitman's position entails that linguistic patterns of FoR use can themselves be entirely attributed to the proposed non-linguistic factors. I present a test of this prediction based on data from a referential communication task conducted with speakers of six Mesoamerican languages, two non-Mesoamerican indigenous languages, and three varieties of Spanish. A series of linear regression analyses shows that the participants' first language, their use of Spanish as a second language, and their level of literacy, but not their education level or the membership of their native language in the Mesoamerican sprachbund, are significant predictors of their probability of using a particular frame type.

These findings support the following tacit conclusions: (i) The role of language in frame selection cannot be reduced to literacy and education. (ii) Practices of language use such as the use of particular reference frame types can be diffused through language contact. (iii) There is no current evidence suggesting that reference frame use in Mesoamerica is an areal effect.