

# Semantic Typology: New Approaches to Exploring Conceptual Transfer in Bilingualism

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**Keywords:** semantic typology, spatial references of reference, bilingualism, conceptual transfer

This paper introduces the methods of semantic typology, the study of cross-linguistic semantic categorization, and its recent application to bi-/multilingualism. Since the mid-1950s, this line of research has centered on the fields such as color terminologies, the framing of motion events, and the semantic categorization of space. Aside from the traditional questionnaire for elicitation, these programs typically embraced multimodal stimuli such as color chips, drawings, objects, photographs, video clips, toys, and even substances with particular smells and tastes, depending on the research questions. This multimodal methodology allowed researchers to acquire interactional information and unexpectedly enhanced participants' engagement in these language games. Previous studies unveiled the specific use of unattested language structures and possible factors attributed to such variation in a given language. Recent research on Mesoamerican languages has discovered the bi-/multi-lingual effects on the spatial referencing strategies in discourse and recall memory.

This case study applies this method to the exploration of the use of the spatial descriptions of Taiwanese Min Nan (TMN)-Mandarin Chinese (MC) bilinguals compared to monolinguals and possible factors attributed to such variation. TMN shows a unique polysemy pattern in its spatial relators, conflating 'front' with 'right' and 'back' with 'left' with a preference for geocentric representations in small scale space; in contrast, MC speakers strongly prefer egocentric and intrinsic representations. Extended the research design of Bohnermeyer et al (2015) to the scope of bilingualism, two discourse and one recall memory tasks were conducted to explore how language, culture, and environment affect the use of spatial referencing strategies in TSM-MC bilinguals compared to monolinguals. A total of 350 participants aged between 19-92 years old were recruited for the tasks. The results for response types by language populations manifested that, unlike the alignment found in the monolingual populations, both bilingual groups displayed a mismatched preference between discourse and recall memory. Transfer and convergence effects emerged between the two bilingual groups. The statistical analysis shows that in addition to language and environment, education was a significant factor in both tasks across Taiwanese populations, suggesting that, since these preferences are regarded as conventionalized cultural practices, education plays a crucial role in (re)formulating spatial representations.

The second discourse task attempted to elicit more reference to the regions in the sagittal and coronal planes of the reference entities across populations. The analyses of this linguistic task have confirmed several language-specific observations across Taiwanese populations. An initial and unexpected finding revealed that young speakers tend to replace coronal with vertical relators in the 3-D task, suggesting future research on the selection of the relators, their associated frames, and potential factors.

This approach proves to be an alternative to capture the unattested structures in language and cognition in a bi-/multi-lingual society. This application makes crucial contributions to investigating conceptual transfer of bilingualism in spatial cognition by examining crosslinguistic influence to (non)verbal evidence of language-specific conceptualizations (Jarvis 2016).

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