The principle of canonical orientation revisited: Evidence from Mesoamerican languages

Randi Tucker[a], Elena Benedicto[b], Juergen Bohnemeyer[a], Alyson Eggleston[b,c], Katharine T. Donelson[a], Alejandra Capistrán Garza[d], Néstor Hernández Green[e], María de Jesús Selene Hernández Gómez[f,g], Jesse Lovegren[a], Carolyn O'Meara[f], Enrique Palancar[h], Gabriela Pérez Báez[i], Gilles Polian[j], Rodrigo Romero Mendez[f]

[a]The State University of New York, Buffalo, [b]Purdue University, [c]East Carolina University, [d]Universidad Autónoma Metropolitana, [e]Centro de Investigaciones y Estudios Superiores en Antropología Social, Distrito Federal, [f]Universidad Nacional Autónoma de México, [g]Universidad Autónoma de Querétaro, [h]University of Surrey, [i]Smithsonian Institution, [j]Centro de Investigaciones y Estudios Superiores en Antropología Social, Sureste

This study explores evidence for language-specificity in the violability of the **principle of canonical orientation** (POCO) (Levelt 1996), which restricts the use of **intrinsic spatial frames of reference** based upon the orientation of the entity they are derived from. Spatial frames of reference are conceptual coordinate systems that are projected onto 'figures' (Talmy 2000: 312) to orient them and on 'grounds' in order to locate figures with respect to them. Intrinsic frames are derived from the ground, egocentric frames from speech act participants, and geocentric frames are based on speaker-external entities and may involve abstraction (absolute frames). POCO states that "[f]or the intrinsic system to refer to a relatum's intrinsic dimension, that dimension must be in canonical position with respect to the perceptual frame of orientation of the referent." (Levelt 1996: 92). An object can be said to be in canonical position when its top-down dimension is aligned with the "vertical dimension of the referent's perceptual frame" (Levelt 1996: 94). Bohnemeyer & Tucker (2010) argue that POCO may not hold in Yucatec Maya, a language of the Mesoamerican (MA) *sprachbund*, and suggest that the principle may be language-specific. For example, POCO predicts that speakers would not use (1) to describe a configuration where the chair is facedown and the ball above it, between its legs. We show that speakers of MA languages do in fact use this type of description, as exemplified by (2), a Yucatec description of the above-mentioned configuration.

(1) The ball is under the chair.

(2) *Le=bòola=o', **y=àanal** te'l tu'x k-u=kutal máak=o',* (…)
DET=ball=D2 A3=underside DADV where IMPF-A3=sit:INCH.DIS person=D2
'The ball, **under** (lit. (at) its underside) there where a person sits, (…)'

We collected discourse data from 11 languages at 5 dyads of speakers per language: seven from within the MA *sprachbund* (Ayutla Mixe, Isthmus Zapotec, San Ildefonso Tultepec Otomí, Tarascan, Tseltal, Yucatec), two indigenous languages spoken just outside the *sprachbund* (Seri and Sumu-Mayangna), and three varieties of Spanish (from Mexico, Nicaragua, and Barcelona, Spain). Participants produced spatial descriptions during a referential communication task in which a director describes photos so that a partner may select the match. The photo stimuli consist of four sets of 12 photos of a ball and chair in different spatial configurations. Propositions were coded for spatial frames of reference used in descriptions locating the ball with respect to the chair. Of the 48 pictures in the set, 10 have configurations that afford POCO violations, where the chair is in non-canonical orientation; descriptions coded as intrinsic in these 10 target photos were counted as POCO violations.

The frequency data show that violations exist in the MA languages, and a Fisher Exact test shows that languages differ significantly in their propensity to violate POCO. We hypothesize that the impact of POCO is reduced in the Mesoamerican languages of our sample and in Sumu by the pervasive use of meronyms – object part descriptors – in the encoding of spatial relations in these languages. This is illustrated by the Yucatec description in (2).

References

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