Topographical Coordinates in Dene and Eipo

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This paper focuses on mental models of topographical coordinates in two unrelated languages. Eipomek is spoken in the central mountains of the Province of Papua (West New Guinea), and Dene in the prairies of Cold Lake, Alberta (Canada). The paper explores the degree to which environmental experience of landmarks and spatial orientation is reflected as cultural-specific mental models (Hutchins 1983; Thiering 2012). The hypothesis is that non-linguistic information as cultural practice has its impact upon spatial language and mental models. Furthermore, topographical information of the immediate environment in particular is represented as mental models constituting gestalt-like representations (Thiering 2011). Different ethnographic grammars, historical texts, and films (Heeschen 1990, 1998) serve as empirical background showing the influence and constructive process of environmental landmarks upon shaping of spatial categorization.

Hence, the general aim is to survey some fundamental spatial notions based on regional landmarks. Landmarks are defined as any kind of cultural-specific environmental external reference points, e.g., mountains, rivers, houses, rocks or a tree. Landmarks are point references external to the person.

A person's account of his/her spatial orientation and navigation generally begins with mental models or cognitive map of landmarks, and these mental models are strategic foci to and from which the person moves or travels (Hutchins 1983). Hence, landmarks are used as proximate course-maintaining devices in the encoding of figure-ground asymmetries (Thiering 2011). It is argued here that these landmarks profile and determine a detailed topographical mental model of the environment as externally represented via language and symbolic practices. Indeed, the presented data show a dense linguistic system of topographical mental models represented, e.g., in toponyms and frames of reference (Levinson & Wilkins 2006; Mark et al. 2011).

References

Heeschen, Volker. 1990. Ninye bún: Mythen, Erzählungen, Lieder und Märchen der Eipo. Berlin: Reimer.

Heeschen, Volker. 1998. An Ethnographic Grammar of the Eipo Language. Berlin: Reimer.

Hutchins, Edwin. 1983. Understanding Micronesian navigation. In: D. Gentner & A.-L. Stevens (eds.). *Mental Models*. Hillsdale: Erlbaum, 191–225.

Levinson, Stephen & Wilkins, David (eds.) 2006. *Grammars of Space*. Cambridge: Cambridge University Press.

Mark, David M., Turk, Andrew G., Burenhult, Niclas & Stea, David (eds.). 2011. *Landscape in Language. Transdisciplinary perspectives.* Amsterdam: Benjamins.

Thiering, Martin. 2012. Topographical Coordinates and Spatial Language. *Preceedings of the 35th International LAUD Symposium Cognitive Psycholinguistics: Bilingualism, Cognition and Communication*. 26–29 March, Universität Koblenz-Landau, Landau/Pfalz, 1–58.

Thiering, Martin. 2011. Figure-ground reversals in language. *Gestalt Theory*, Vol. 33, 3/4, 245–276.