

## **ANALYZING PROPERTY PREDICATION FROM THE PERSPECTIVE OF EVOLUTIONARY LINGUISTICS**

MASAYUKI ISHIZUKA<sup>\*1</sup> and RYOKO UNO<sup>2</sup>

<sup>\*</sup>Corresponding Author: ishizuka@l.u-tokyo.ac.jp

<sup>1</sup>Department of Linguistics, University of Tokyo, Tokyo, Japan

<sup>2</sup>Division of Language and Culture Studies, Tokyo University of Agriculture and Technology, Tokyo, Japan

In the context of evolutionary linguistics, both constructive approaches (e.g., artificial life, robotics, and experimental semiotics) and cognitive linguistics inquire about the embodied nature of language. However, there is still a huge gap between these two areas when it comes to what constitutes language (Di Paolo et al., 2018). To bridge this gap, this paper focuses on how property predication is expressed differently among languages in a cognitive linguistic framework and argues in favor of noticing the aspect of pointing that does *not* directly contribute to establishing joint attention.

Joint attention is a proto-linguistic behavior that uses pointing with a gaze or finger to attract other people's attention to an object. Only humans can establish joint attention to share intentionality. Thus, this act is often studied as key to revealing the relationship between action and language (Gómez et al., 1993; Tomasello, 2008; 2019). Several attempts to simulate the co-evolution of joint attention and language have been made (e.g., Kwisthout et al., 2008; Uno et al., 2011; Gong & Shuai, 2012). In cognitive linguistics, demonstratives are well studied as a linguistic means to establish joint attention (Diessel, 2006). To extend the argument, this paper sees predication sentences as the linguistic equivalent of pointing. For example, if you are surprised by the redness of a flower, you might point at the flower or say, "The flower is red!"—which is a property predication sentence.

In a typological study, Stassen (1997) showed that property predication sentences have no prototypical encoding strategy of their own and they always align with one of three predicate categories: class, event, and location. Stassen characterized the prototypical strategy for each predicate category as follows: (1) The nominal strategy is prototypical for class predicates and uses a support item that is (at least etymologically) non-verbal. This strategy can be found in Waskia, for example. (2) The verbal strategy

is prototypical for event predicates, uses no support item (auxiliary), shows person agreement, and has a specific negation strategy. This is exemplified by Mandarin Chinese. (3) The locational strategy is prototypical for locational predicates and uses a support item that is a verb. This strategy can be found in Finnish.

In a cognitive linguistic framework, we can interpret that property predicates have to be construed in verbal, locational, or nominal ways. Construals are how we conceptualize particular semantic content. One of the central claims in cognitive semantics is that we can portray the same situation in alternate ways (Langacker, 2008). The three strategies can be interpreted as three types of construals for the same situation.

- (1) a. Nominal construal: “The flower is classified as a red thing.”
- b. Verbal construal: “The flower is going through an event of redness.”
- c. Locational construal: “The flower is in a location (or a state) of redness.”

From (1), we make the following argument: While verbal and locational construals describe the situation in the world, nominal construal does not. Instead, nominal construal describes the inner state of the speaker. Because of this difference, what is conceptualized by sentences with the nominal construal in their immediate scope cannot be shared with others, unlike something observed in the speech context at hand. This makes nominal construals more detached from the ground than the other two types. This point is supported by another observation: many languages permit more than one encoding strategy for property predicates, and Stassen (1997, p. 615) pointed out that if a strategy switch involving the nominal strategy is interpretable in terms of time stability, the nominal strategy will encode the more time-stable option. Time stability tends to be linked to a structural description rather than to a phenomenal description (Goldsmith & Woisetschlaeger, 1982; Langacker, 1997). To elaborate, the knowledge related to the nominal strategy can be more context independent or, in fact, less grounded.

To contribute to the theory of embodied language, we interpret the analysis of property predication as an analysis of pointing in general. As in the case of property predication, pointing can be semantically ambiguous: the agent can point at something outside that can be shared to establish joint attention, but the agent can concurrently point at it to express something that is inside the agent that cannot be seen and shared with others through joint attention. The former is fully communicational, but the latter is relatively monologic. Clark (1997) points out that the communicational aspect of language attracts too much attention, often causing other aspects of language to be overlooked. An analysis of pointing in evolutionary linguistics can be regarded as an example. Our study implies that the monologic aspects of pointing must be focused on more, as they are clues to linking action to linguistic constructions with abstract meanings reflecting our structural knowledge of the world.

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