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Putting Context in Constructions

The contextual fluidity of language use has been extensively documented in the literature: speakers use language to accomplish communicative goals rooted in specific contexts, and many utterances make sense only relative to those contexts. Expressions like *gesundheit!*, *bon voyage* and *thank you* all require particular event types to be in the immediate context, and a variety of pragmatic conditions are associated with the family of Deictic Constructions studied by Lakoff (1987). Other phenomena, such as pronominal reference, determiners and deixis, impose more general constraints on referential accessibility (Lambrecht 1994). This context dependence is especially pronounced in languages in which verbal arguments are regularly unexpressed, as well as in contexts that provide particularly rich situational scaffolding, such as parent-child interactions. The following child-directed utterances all rely on situationally available referents that demonstrate, respectively, (1) pronominal reference with no expressed antecedent; (2) omission of a prototypically required argument (the object of *throw*); and (3) omission of verbal arguments (subject and object of *reng1* ‘throw’) in a pro-drop language:

1. Are they clean yet?
2. Let’s not throw anymore.
3. (Mandarin)

you4 wang3 di4+xia4 reng1 .
again towards ground Throw

[You] (are) throw(ing) [it] towards the ground again.

The phenomena above depend on dynamically evolving aspects of the current discourse and situational context. In this paper we argue that any construction grammar formalism must allow constructions to explicitly represent contextual conditions. Specific lexical items as well as more general constructions might apply only when an appropriate referent (for example, of the correct number and gender) is present or some other contextual condition holds. Relevant information includes not just currently perceptible stimuli in the environment but also some history of the preceding sequence of utterances and events. Constructions should be able to express such contextual constraints and thus explicitly direct processes of language understanding to seek specific referents that satisfy them. The process of reference resolution, in turn, must be able to translate such constraints into a search of the current context. And finally, learning processes should be able to associate such contextual constraints with constructions based on instances of use.

We explore this view within the framework of Embodied Construction Grammar (Bergen and Chang 2005), a computationally precise construction grammar formalism that supports a model of simulation-based language understanding, as well as an integrated usage-based model of language acquisition. We propose a structured representation for organizing the participants, objects and events accessible in the immediate context, extend the ECG construction formalism to express contextual

constraints, and adapt previous construction analysis and learning algorithms to exploit contextual information. These extensions permit a variety of contextually grounded constructions to be expressed, understood and learned. The resulting model provides a uniform treatment of a wide range of context-dependent phenomena and demonstrates the advantages of an integrated approach to the declarative structures and dynamic processes underlying language use.

References

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