Temporal and modal anaphora in sign language (ASL)

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Abstract We suggest that data from American Sign Language (ASL) provide overt evidence for Partee's and Stone's claim that natural language has anaphoric constructions in the temporal and modal domains (Partee 1973; Stone 1997). We provide four arguments. (i) Like nominal and locative expressions, temporal and modal constructions can establish loci that can then be indexed by later pronouns. (ii) As is the case in the nominal and locative domains, anaphoric constructions can involve singular, dual, trial, and plural pronouns. (iii) When the antecedent is existential, patterns of inference obtain which are characteristic of E-type anaphora. (iv) Finally, temporal and modal anaphora give rise to patterns of 'locative shift' which are also found with geographical locations. The last observation suggests that temporal and modal reference is particularly similar to locative reference.

Keywords Sign language · Semantics · Anaphora · Temporal anaphora · Modal anaphora

1 Introduction

1.1 Theoretical goals

In the tradition of modal and tense logic, it was thought that expressions are only *implicitly* evaluated with respect to times and possible worlds: variables could denote individuals, but not times or worlds. By contrast, several researchers have argued after Partee (1973) and Stone (1997) that natural language has time- and world-denoting variables—albeit ones that are usually invisible. We provide overt evidence for this conclusion: in American Sign Language (ASL), a single anaphoric expression has nominal, temporal, and modal uses—as well as locative uses. Most of the analysis

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