

### Reconsidering agreement in sign languages

Across sign languages (SL), locations in physical space (“loci”) are used for reference (Friedman 1975, Klima & Bellugi 1979). Verbs can change the direction of their movement and/or their hand orientation so that the sign begins at the locus associated with the subject and ends at the locus associated with the object (Fischer & Gough 1978, Meir 1998, Padden 1983). This directionality has often been analyzed within generative frameworks as verbal agreement (Fischer & Gough 1978, Lillo-Martin & Meier 2011, Padden 1983, Janis 1995, Meir 1998). A new agreement analysis by Pfau, Salzmann, and Steinbach (2018) aims to fix previous problems with agreement accounts while arguing against competing analyses, including cliticized pronouns (Nevins 2009, 2011). We argue that the case is far from closed and in particular that a clitic analysis remains at least as viable. We first discuss two previous problems for an agreement analysis that Pfau et al. set out to solve (object primacy, marking non-finite clauses), and our response. We then discuss disadvantages for a clitic analysis as noted by Pfau et al. (backwards verbs, historical emergence) to which we provide counterarguments. We end with an important open question for both accounts (lexical verb classes).

Despite the initial appeal of an agreement analysis, there are well-known ways in which SL directionality does not show straightforward properties of agreement. One is the **primacy of objects over subjects**: if only one is marked it is the *object* in SLs, while in spoken languages it is the reverse (if only one is marked via agreement it is the *subject*). In fact, SL verbs that mark only subject agreement are unattested. Another is that directionality can be marked on **non-finite/infinitival clauses** in ASL (Padden 1983), unlike typical agreement. Pfau et al. account for object primacy through a sign language specific explanation of “default marking” of the subject using the body (Meir, Padden, Aranoff, & Sandler 2007). Similarly, they argue that tense is irrelevant for directionality since sign languages express tense with adverbials, not affixes on the verb, and (i) it is not clear that SLs have non-finite clauses of the same type in spoken languages, and (ii) that agreement on non-finite verbs has been observed in spoken languages. These are additional, modality-specific assumptions that allow an agreement account to work, but as noted by Nevins (2011), both of these unusual features are expected if directionality is instead analyzed as cliticized or incorporated pronouns, where subjects are less frequent and less obligatory than objects, and which can occur on nonfinite predicates.

Pfau et al. (2018) also raise direct objections to a clitic analysis. One concerns “**backwards**” verbs: in some directional verbs the movement begins from the locus associated with the object towards the locus associated with the subject, in contrast to the typical subject-to-object direction. A centerpiece of Pfau et al.’s argument is that the clitic analysis does not provide—and cannot provide—an explanation of backwards agreement. They propose instead that lexical items condition the ordering of syntactic operations, such that one ordering (specifically Agree > Merge) results in regular verbs and the other ordering (Merge > Agree) results in backward verbs. While we agree this can provide a (stipulative) mechanism for describing the difference between regular and backwards verbs, there is no attested lexically-conditioned split ergative system in spoken languages, and so with this mechanism, sign languages become typologically unique in a different way. Also, while backwards verbs are not predicted straightforwardly by a clitic analysis either, we disagree that it would be impossible. For example, Washington (2015) shows that in Brazilian Portuguese,

pre-verbal clitic placement is preferred when the object is human. If lexically-conditioned properties (e.g., having a human or animate theme) can trigger clitic order in spoken languages, the backwards verb class in SLs becomes less surprising. In any case, both analyses are left resorting to explanations outside the system (see also Meir 1998).

Pfau et al. also suggest a **historical** argument against clitics. In spoken language, “full” agreement systems frequently develop diachronically from personal pronouns (Hopper and Traugott 2003, a.o.); in between is a stage of cliticization where personal markers on the verb retain some referential properties, as in Old Irish (Ariel 2000, Griffith 2015). Because SL agreement systems often have origins in pronouns (see Pfau and Steinbach 2011), we should expect the same gradual shift, involving a prolonged stage of cliticization but Pfau et al. argue that there is no evidence for an intermediate stage. What would such a stage look like, though, if not the current state of directionality? We suggest it is equally plausible that SLs generally vary in where they might be in such a process (Lillo-Martin and Meier 2011, see also Meier 2002), given evidence of diachronic change in directional verbs (see also Engberg-Pedersen 1993) with new directional verbs added to the lexicon over time. Lillo Martin and Meier (2011) discuss how backwards verbs pose a challenge for proposals of emergence of agreement as cliticization, but as we noted above, backward verbs require modality-specific stipulations under any analysis.

A final way in which directionality is non-canonical for agreement is its optionality throughout the lexicon: some verbs “agree” in person (first vs. non-first) and number, while in a second class of verbs (spatial verbs) the movement indicates instead movement from source or location to goal, and in a third class (plain verbs) there is no directionality marking of any sort (Meir 1998). While a clitic analysis does not predict **verb classes**, it may be an appealing feature that the regular agreeing and spatial verbs could be grouped as clitic hosting verbs, in contrast to nonclitic-hosting plain verbs. A clitic analysis may also have an advantage in coverage of the deictic aspect of some SL verb directionality (Liddell 2000, Schembri, Cormier & Fenlon 2018), given that clitics can receive interpretation through both anaphoric and deictic means.

In sum, an analysis of SL directionality as agreement faces several significant challenges. Pfau et al. provide ways to salvage an agreement analysis but which a clitic analysis gains for free, and we argue in other respects the two analyses are arguably equally stipulative. We end with an eye toward future research. A property of pronouns that clitics may share, but agreement would not, is optionality that interacts with the saliency of referents. When the intended referent is highly salient, pronouns can be, and sometimes must be, dropped in a number of spoken languages (cf. Duguine 2017). We observe preliminary evidence that the saliency of referents such as the distance between the antecedent and pronoun affects directionality. This work could be extended to see if clitics are affected by saliency of referents.

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