Agreement marking in Croatian Sign Language – a new view on the old agreement

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Verb agreement in sign languages (SLs) has posed an analytical puzzle for decades. It would appear that, unlike spoken language agreement, SL verb agreement is cross-linguistically odd in at least 2 ways: (1) only a subset of verbs show agreement, leading to much speculation on its triggers; and (2) object agreement is more common, with subject agreement only visible when object agreement is marked, thus subject-only agreement seems absent. Despite a long history of approaches (Pfau et al 2018 for overview), the fundamental problem remained that analysts attempted to explain only what was most visibly marked, namely change in hand orientation and direction of verb stem movement (Mathur & Rathmann 2012). This focus led to ignoring all verbs without path movement, because without it, there cannot be change in direction. That is, only transitive verbs were being analyzed, and worse, only those with obvious path movement. Thus, the first oddity of SL agreement is readily explained by the fact that most of the verbs were labeled 'plain/non-agreeing,' excluded from further analysis. The second oddity results from the first: intransitive verbs, with only a subject, do not have path movement and were therefore also excluded.

Lourenço (2018; Lourenço & Wilbur 2018) addressed this differently: what factors block agreement marking? He made 2 observations about Brazilian Sign Language (Libras) verbs: (1) truly 'plain' verbs were body-anchored, hence blocked from changing location to show agreement; and (2) all remaining verbs showed *matching* of location of verb production and its argument, called co-localization. From this perspective, agreement is not restricted to just a subset of verbs but more pervasive than previously recognized. Consider first transitive verbs with 2 arguments: traditional path analysis starts at location of the subject and ends at location of the object, which requires a path. Prior analyses incorrectly inferred that path carried agreement marking, rather than the argument locations, even when locations are treated separately, to be copied onto the verb (Pfau et al, 2018). Applying this to intransitive verbs, they can be co-localized with their arguments; with only 1 argument, no path occurs; agreement that intransitive verbs display was not recognized.

Here, we apply this agreement analysis to Croatian Sign Language (HZJ). In Figure 1, the verb KISS is a transitive 'agreeing' verb. Using the older description of SL agreement marking, we would say 'there is [direction] movement from subject location to locus of the object.' From current perspective, it is clear that the verb KISS starts at location of subject GIRL and ends at location of object BOY; we note that BOY is topicalized to front of the sentence, but this does not affect its localization in space which is shown with use of a person classifier ('cl').

Figure 1. BOY_a cl:located$_a$, $GIRL_b$ $_b KISS_a$
boy here$_a$ girl$_b$ $_b$kiss$_a$
A girl kissed a boy. (Lit: a/the boy, a/the girl kissed (him))

Figure 2 shows 2 verbs, COME and HOLD-PISTOL, which are not signed in "neutral" space, but are produced at the locus of the subject. The 3rd image shows where COME ends, indicating the discourse localization of the subject. The 4th image shows HOLD-PISTOL co-localized in the same location, indicating who is holding the pistol. Both verbs show subject agreement; COME might or might not have been included in prior analysis for its endpoint as object if a discourse referent were located there, but neither verb would have been considered as subject agreement, and HOLD-PISTOL, with no internal movement, would have been excluded completely from further consideration. Instead, we see that it matches subject location through co-localization.

Figure 2. IX$_a$ MAFIA$_a$ COME$_a$ HOLD-PISTOL$_a$ (GRANDFATHER$_b$) $_b$GIVE$_a$ (PAINTING)
"...suddenly the mafia came, held the gun, and grandfather had to give them paintings…"

This matching of location is the morphological realization of SL agreement. It is not the *direction* of movement that marks agreement, but the matching of location of beginning (subject) and end point (object) of the verb to location of its arguments. The path movement in so-called agreeing verbs is related to predicate event properties, as argued by Wilbur (2008, 2010). When a "body-anchored" verb is unable to show agreement by co-localization, we assume that this is comparable to spoken situations in which markers are phonologically lost in particular environments (so-called zero allomorph). This paper shows an application to another SL, HZJ, and we hope will change how people view agreement in SLs. From this perspective, SLs can no longer be given as examples of violations of verb agreement norms.

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