

# UC San Diego

## San Diego Linguistic Papers, Issue 4

### Title

Agreement and Pronoun Incorporation in ASL Verbs from a Bantu Perspective: Reporting of Pilot Data

### Permalink

<https://escholarship.org/uc/item/5vb9412h>

### Author

Michel, Daniel

### Publication Date

2013-12-19

# Agreement and Pronoun Incorporation in ASL Verbs from a Bantu Perspective: Reporting of Pilot Data

Dan Michel<sup>1</sup>

University of California, San Diego

## 1. Introduction

Research into signed languages has contributed a wealth of findings relevant to the study of language in general. We have been able to observe that which signed and spoken languages share, independent of modality differences (see Sandler and Lillo-Martin (2009) for a review), deepening our understanding of the human ability for language. In this paper I take findings from research on Bantu languages and apply them to the morpho-syntax of American Sign Language (ASL). I present pilot data in support of the argument that spatial path features on inflecting verbs are cases of pronominal incorporation rather than agreement.

Padden (1988)'s class of inflecting verbs are able to use spatial path features, which I will call 'locus markers,' to mark which referent(s) in the discourse is/are associated with the verb. Padden considers this to be an agreement relationship, much in the same way that features like 'third-person singular' are marked on the English verb *go* in *he goes to the store*. I compare these ASL locus markers to Bantu object markers, which show a similar feature-matching relationship. In the Bantu literature, Bresnan and McHombo (1987) have demonstrated predictive tests that can help determine whether such a feature-matching marker on the verb is an agreement marker or a case of an incorporated pronoun.

If the marker on the verb is an incorporated pronoun, then that morphological marker is able to satisfy the argument requirements of the verb itself. This in turn means that a co-referent NP that is an apparent argument of the verb *cannot* be the grammatical object of the verb, as the morphological marker on the verb has *already* satisfied that requirement. Since this co-referent cannot be an argument, Bresnan and Mchombo consider it to be an anaphorically bound topic. I apply these tests to ASL to argue that the apparent agreement is also a case of pronoun incorporation.

By presenting pilot data elicited from a fluent ASL-English bilingual, I argue that ASL spatial 'agreement' on inflecting verbs is actually a case of pronoun incorporation, and thus the co-referents that appear to be arguments of those verbs when the locus marker is present are actually non-argument topics.

## 2. ASL Locus Marking

ASL, being in the visual-spatial modality, has the opportunity to make very productive use of space, not only in terms of an area needed to produce signs, but also in terms of marking relations

---

<sup>1</sup> I would like to thank Farrell Ackerman, Kate Davidson, Matt Hall, Robert Kluender, Rachel Mayberry, Hope Morgan, Zoe Ziliak Michel and my consultant for helpful discussions in developing the ideas in this paper. Any deficiencies are my own.

that are relevant to the discourse. These discourse-relevant spatial functions are heavily used with independent pronouns as well as in marking verb-pronoun relations ('agreement' in Padden (1988)). Independent pronouns take the form of points to loci, which are specific spaces in front of the signer assigned to specific discourse referents. A first person pronoun is indicated when a signer points at herself. If a signer instead points at the addressee, this indicates what would be translated as a second person pronoun. The indication of third person, lacking an anchor of either the signer or the addressee, can be placed anywhere in the signing space.

Researchers differ on what they consider the grammatical nature of these points to be. The key difficulty is in the so-called 'listability problem:' how can the infinite number of potential orientation features (i.e. points to specific locations) for these pronouns be listed in the lexicon? One option is to claim that there are no grammatical person distinctions in ASL, only gestural pointing used for reference (Lillo-Martin and Klima 1990; Todd 2009). Another option is to accept only the first person pronouns as fully lexically specified, as the point is always oriented towards the signer, resulting in a first person/non-first person distinction, with the latter interpreted as gesture (Meier 1990; Engberg-Pedersen 1993). Finally, there is some support for a three person distinction, using data from eye gaze<sup>2</sup> (Bellugi and Fischer 1972; Baker-Shenk and Cokely 1991) or body orientation (Brenz 2002) to argue that signed languages have the same person distinctions as the overwhelming majority of spoken languages (Greenberg 1993).

For the purposes of the discussion that follows, I will be referring to these indexical points as pronouns. Independent pronouns are glossed as an index with a subscript: INDEX<sub>N</sub>. The number of the subscript indicates the person of the pronoun: INDEX<sub>1</sub> for first person, INDEX<sub>2</sub> for second person, but any other INDEX<sub>N</sub> for third person (since there can be multiple, singular, third persons in a discourse, such as the English *She saw him*).<sup>3</sup> I remain agnostic as to whether these pronouns are fully lexically specified or employ some gestural components. I assume that there is a lexical representation of some kind for these pronouns, even if the orientation of the point is underspecified and is thus filled in by a gesture (Askins and Perlmutter 1995; Mathur 2000; Lillo-Martin 2002; Rathmann and Mathur 2002; Meier and Lillo-Martin 2009).<sup>4</sup>

Padden (1988) classifies ASL verbs into three types: *plain*, *spatial* and *inflecting*. Inflecting, or 'agreeing,' verbs use the same spatial loci that the pronouns use in order to indicate the grammatical person of the arguments of that verb.<sup>5</sup> As an example, when signing GIVE, the hand takes the appropriate shape for the lexical item, but then the articulation of the sign follows a path from the pronominal locus of the giver to the recipient. If GIVE is signed from the first person locus to the second person locus, then I gave you something, as shown in example (1). However, if the path were reversed such that the sign for GIVE traveled from the second person locus to the first person locus, then you would have given me something.

- (1)     <sub>1</sub>GIVE<sub>2</sub> BALL  
          'I gave you a ball.'

In contrast, plain verbs, such as KNOW, are not moved from locus to locus. In order to indicate who knows whom, independent pronouns must be used, as in (2).

---

<sup>2</sup> See Thompson et al. (to appear) for eye gaze data that instead supports the first-person/non-first-person distinction.

<sup>3</sup> For this reason, some researchers prefer using letter subscripts. However, in the data below, there is only ever one third person reference in an utterance, so I will make use of numerals to make the grammatical person of the pronoun transparent.

<sup>4</sup> A alternate view that there is no lexical representation to these points (it is a purely gestural phenomenon) would raise a number of issues with the tests presented below, which assume that they are operating on linguistic, not gestural, material.

<sup>5</sup> Though see the discussion of Thompson et al. (to appear) for a complication to this 'sameness.'

- (2) INDEX<sub>1</sub> KNOW INDEX<sub>2</sub>  
'I know you.'

It is rare that verbs such as GIVE are signed with an overt direct object, so one typically does not sign:

- (3) # INDEX<sub>1</sub> GIVE<sub>2</sub> INDEX<sub>2</sub> BALL  
'I gave you a ball.'

Padden analyzes this path motion in inflecting verbs (specifically its endpoints) as grammatical agreement, wherein GIVE agrees in person with the subject and indirect object of GIVE. Other researchers have questioned this analysis, however, arguing that this is a case not of agreement, but rather of pronominal incorporation (Kegl 1986; Kegl 1990). In order to avoid calling this verbal morphology 'inflection,' 'agreement,' or 'incorporated pronouns,' I will refer to this use of loci on the verb as 'locus markers.' Thus (1) can be described as the sign for GIVE starting at locus marker 1 and ending at locus marker 2.

While both ASL pronouns and locus markers use the same spatial endpoint, recent work from Thompson et al. (to appear) indicates a difference between them. Locus markers co-occur with an eye-gaze morpheme that is not present with freestanding pronouns.<sup>6</sup> One could take this additional morpheme to be evidence against locus markers being incorporated pronouns, but there could also be co-articulatory and/or allomorphic variation that would account for the difference. These possibilities remain to be explored, leaving it unclear how this finding interacts with the agreement vs. pronominal incorporation debate. As such, the finding is not addressed further in the current discussion.

The technical distinction between agreement and pronominal incorporation has been an area of interest in spoken languages for many years. Analyses of pronominal incorporation have been given for a wide array of languages, including Native American languages, such as Chinook (Boas 1911); Native Australian languages, such as Warlpiri (Jelinek 1984); and Bantu languages, such as Chichewa (Bresnan and McHombo 1987). In cases of agreement and pronominal incorporation there are two elements in the sentence that each refer to the same referent: the verbal morphological marking, and the overt NP (which I will label the 'co-referring NP'). What differentiates agreement from pronominal incorporation is which of these elements the grammatical argument of the verb is in. In an agreement relationship, the co-referring NP that the verb agrees with is the argument of the verb, and the agreement morphology is simply a marker of relationship. In cases of pronominal incorporation, however, the morphological marking on the verb is itself the argument, making the status of any co-referring NP a non-argument topic. Bresnan and Mchombo analyze this non-argument topic as standing in an anaphoric relationship to the incorporated pronoun, thus keeping the NP in (an indirect) relationship with the verb. Given the wide variety of language types that have been argued to have pronominal incorporation, and given ASL's richness in topicalized structures, it is not unreasonable to inquire whether ASL also has pronominal incorporation. This possibility is tested below.

---

<sup>6</sup> Locus markers reliably co-occur with an eye-gaze morpheme across individuals, tasks, and proficient signing populations about 70% of the time. This eye gaze morpheme appears to be sensitive to grammatical function and is constrained by Keenan and Comrie's (1977) noun phrase accessibility hierarchy. The co-occurrence of eye gaze with free-standing pronouns, on the other hand, appears to be random, highly variable across individuals, and never different from chance (except in the case of locative pro-forms, with which the eye gaze morpheme reliably occurs at the 70% rate). In other words, eye gaze appears to have been systematically grammaticized in the case of locus markers but not with free-standing pronouns (R. Kluender, personal communication, October 25, 2013).

### 3. Testing for Pronominal Incorporation (PI) in Bantu

In arguing that Chichewa has pronominal incorporation (PI), Bresnan and Mchombo provide set of diagnostics that has been applied to other Bantu languages such as Swahili (Bresnan and Mchombo 1987; Barrett-Keach 1995) and GiTonga (Michel 2010). Bantu languages have verbal markers that agree in noun class of the subject (for subject markers) or object (for object markers) of the verb. These markers can be ambiguous between agreement and PI (as would be expected if the language is undergoing a historical change; see below). In the original Chichewa analysis, Bresnan and Mchombo conclude that the subject marker is ambiguous between agreement and PI. And in Swahili there is disagreement on whether the subject marker is an agreement marker (Deen 2006) or an incorporated pronoun (Zwart 1997). The object marker is not ambiguous for these languages, however. The PI tests of Bresnan and Mchombo (henceforth B&M) provide clear evidence that Chichewa object markers are a case of PI.<sup>7</sup> There is also a consensus that Swahili object markers are pronominals that are determined by discourse factors (Allan 1983; Seidl and Dimitriadis 1997; Wald 1979; see also Marten, Kula, and Thwala 2007 for a typology of object marker features in Bantu). However, arguments have been made against some Bantu languages having pronominal incorporation (e.g., Sambia: Baker 2008, Riedel 2009; see Riedel 2009 for a review of Bantu object marking).

Chichewa, like ASL, can show apparent agreement between a verb and its subject and object. Like ASL, one can consider it a ‘pro-drop’ language, where the verbal morphology allows a discourse referent to be understood without a phonetically overt separate word being present. In this way, the morphology on the verb functions like a pronoun that can be interpreted in the discourse. PI also can also exhibit pro-drop-like behavior where a referent is understood in a discourse without a phonetically overt independent word. This issue of interpretability in the discourse is not used for any of the definitions, predictions or tests that distinguish agreement from PI. The tests outlined below rely not on interpretability (which is assumed), but on the grammatical status of the morphological markers and words involved.

It should not be thought that PI is a subset of verbal agreement relations. It is helpful to think of agreement and PI as being along a continuum rather than in a superset-subset relationship. It has been posited that verbal agreement results from historical changes where independent pronouns adjacent to a verb are incorporated into them (PI) and over time become agreement markers (Givón 1976). Thus, considering the relative youth of ASL, it may be possible that it is in a state of transition and there will be variation in the grammatical status of locus markers based on when and where data is acquired. It is also possible, as B&M propose for subject markers in Chichewa, that in some languages, a morphological marker within a language can be functionally ambiguous between agreement and PI as historical changes occur.

The key difference between agreement and PI rests upon which element fulfills the subcategorization needs of the verb. In the Chichewa data below, we see a complex verbal structure (see fn 8 for gloss abbreviations). For the purposes of this paper, the key item is how the object marker (OM) relates to the following noun (see example (5)), if it is present.

- (4) *Njuchi zi-na-wa-lum-a.* Modified from B&M (2)  
 bees SM-PAST-OM-bite-INDIC<sup>8</sup>  
 'The bees bit them.'

The Chichewa translation given by B&M in (4) indicates that the object marker is interpreted as a pronoun, though this could simply be a case of pro-drop. The crucial data are the following

<sup>7</sup> These test are further supplemented by patterns of tone data that indicate clause boundaries in Chichewa, but the tests have also been applied to non-tonal languages such as Swahili.

<sup>8</sup> SM: subject marker, OM: object marker, INDIC: indicative

sentences, where *alenje*, ‘hunters,’ follows the verb. As part of the rich system of noun class marking that is pervasive in Bantu languages, the object marker *wa* matches *alenje*’s noun class. Note the different interpretations of the sentences when this *wa* is present (5) and absent (6).

- (5) *Njuchi zi-na-wa-lum-a* *alenje.* B&M (2)  
 bees SM-PAST-OM-bite-INDIC hunters  
 ‘The bees bit them, the hunters.’
- (6) *Njuchi zi-na-lum-a* *alenje.* B&M (1)  
 bees SM-PAST-bite-INDIC hunters  
 ‘The bees bit the hunters.’

The observation crucial to the PI account is that the overt object following the verb is interpreted as a topic when the object marker is present (5). The distinction between (5) and (6) is subtle, difficult to elicit and difficult for native speakers to articulate. The precise situations when an object marker is used differ among Bantu languages (Marten, Kula and Thwala 2007) and are contentious even in highly studied languages such as Swahili. As such, B&M developed five predictions based on the readings in (5) and (6), where ‘hunters’ is a topic in (5) but not in (6). Thus, rather than wrestle with the subtle readings, B&M can test these predictions. Four of these predictions/tests involve *wh*-questions and one relies on idioms. For this paper I will only be referring to the most simple of the *wh*-tests, namely B&M’s first and thirds predictive tests, as the status of *wh*-phenomena in ASL is not a settled issue (see discussion below of Petronio and Lillo-Martin 1997; Neidle et al. 2000; Neidle et al. 1998), and the fewer assumptions made, the clearer the potential findings. Both of these tests rely on a prohibition of the same referent being assigned topic and focus within a single clause.

If the apparent object (*alenje* in (5) above, i.e., the co-referring NP) is a topic, one can attempt to force a topic/focus feature clash by questioning it *in situ*. As *wh*-interrogatives indicate focus, the result is predicted to be unacceptable. The co-referring NP is forced to be a topic if the OM is an incorporated pronoun. If the OM is an agreement marker, however, then the co-referring NP is an argument (*not* a topic) and can gain focus from the *wh*-interrogative. If the OM is an agreement marker, then, questioning the co-referring NP *in situ* is predicted to be acceptable.

We see that the pattern of acceptability in (7) and (8) is the one predicted if the OM in (7) is an incorporated pronoun. The incorporated pronoun is the argument of the verb ‘want’ meaning that the apparent object of ‘want,’ namely ‘what,’ is instead an anaphorically bound topic. When this topic is questioned, the *wh*-interrogative indicates focus. This combination of topic and focus results in unacceptability. However, in (8), when the OM is removed, the co-referring NP is now an argument, *not* a topic, and it is acceptable when marked as focus by the *wh*-interrogative as there is no feature clash. The logic for these predictions is summarized in Table 1.

- (7) ?? *kodi mu-ku-chi-fun-a* *chiyani?* B&M (41)  
 WH 2sg-PRES-OM-want-INDIC what  
 ('What do you want?')
- (8) *kodi mu-ku-fun-a* *chiyani?* B&M (40)  
 WH 2sg-PRES-want-INDIC what  
 'What do you want?'

Table 1: Motivation of the *wh-in-situ* test.

Type of claim	Argument
(9) Definition	Agreement is a grammatical relation in which two grammatical items must match some features.
(10) Definition	Pronominal Incorporation is a grammatical construction in which full pronouns are part of the verb-form, rather than separate independent elements.
(11) Claim (B&M)	Verbs with PI fulfill their own subcategorization requirements with their incorporated pronouns. The pronouns in PI are arguments of the verb. Since the verbal argument is thus already filled, any overt nominals co-referential to this argument are not arguments, but are instead anaphorically bound topics (TOP).
(12) Assumption	In agreement, overt nominals related to the verb are arguments and <i>not</i> anaphorically bound topics (TOP).
(13) Assumption	<i>Wh</i> -interrogatives are focus (FOC)
(14) Claim (B&M)	A single element cannot be (or co-refer to) both a TOP and a FOC within the same clause (feature clash).
(15) Follows from above	If a verb has PI, its apparent overt arguments are actually TOP, and so can't be questioned <i>in situ</i> as this would lead to a TOP/FOC clash.

The topic(TOP)/focus(FOC) feature clash must be avoided within the same clause. In Chichewa, *wh-in situ* resides in the same clausal domain as the verb.<sup>9</sup> The third testable prediction<sup>10</sup> in B&M is that the unacceptability of a TOP/FOC feature clash is not an issue when the TOP and FOC markers are in different clauses. This cross-clause escape hatch provides a way to avoid the prohibition in (11) that referents cannot be marked as both TOP and FOC. Obviously, throughout a discourse, what was highlighted as new information (FOC) can become highlighted as old information (TOP). This makes intuitive sense across sentence boundaries. B&M argue that the clausal domain also sufficiently separates associations to a referent such that in one clause a referent can be highlighted as FOC, such as with a *wh*-feature, while being marked as TOP in another clause. An example of a Chichewa clefted *wh*-question, where the co-referring NP (*chiyani*) is outside of the clause with the OM, is shown in (16).

- (16) *kodi ndi chiyani [chi-mene mu-ku-chi-fun-a] ?* B&M (48)  
 WH COP what [REL 2sg-PRES-OM-want-INDIC]  
 'What do you want?'  
 Lit: 'What is it that you want?'

The relativized form in (16) demonstrates that the questioned referent can be marked for FOC by the *wh*-feature in the matrix clause when the incorporated pronoun (object marker) is in a different clause. Both the *wh*-word and the object marker are associated with the same referent, but the utterance is fully acceptable under this bi-clausal distribution. A situation in which this distribution of TOP and FOC would be acceptable would be if the speaker knew that the interlocutor wanted *something* (old information highlighted- TOP) but was unsure what the specific something was (request for new information highlighted- FOC).

In summary, we see that if the verbal marker is a case of PI, then it will not co-occur with a co-referring *wh*-NP in the same clause (due to TOP/FOC feature clash). But it is acceptable if the co-referring *wh*-NP is in a different clause.

<sup>9</sup> See B&M's original analysis for tone patterns that support this for Chichewa. This remains an assumption in other languages that these tests are applied to.

<sup>10</sup> The second testable prediction has not been addressed in this paper.

#### 4. Applying the tests

The remainder of this paper reports pilot data<sup>11</sup> from an attempt to extend the predictive tests outlined above for Chichewa beyond other Bantu languages and apply it to ASL, replacing object markers with locus markers.

The tests presented above from B&M rely on using *wh*-questions to probe an element's potential status as a topic by seeing if it will clash with a focus feature. However, Neidle and colleagues' analysis of ASL's *wh*-questions, especially as they relate to the use of non-manual marking (NMM) has led them to claim that there are *wh*-topics (Neidle et al. 2000; Neidle et al. 1998). This *wh*-topic approach has also been used to account for the double-*wh* constructions found in ASL (17).

- (17) WHAT JOHN BUY WHAT?  
'What did John buy?'

Neidle et. al's *wh*-topics analysis requires rightward movement, an option that has been previously contested in the literature. (Petronio and Lillo-Martin 1997) note that rightward movement would violate a proposed syntactic universal, in addition to requiring a [+*wh*, +TOP] which would be would be a [+FOC, +TOP].

However, Neidle et al. additionally claim that there is a certain non-manual marker for this *wh*-topic. It is widely acknowledged that ASL has both a topic NMM and a *wh*-NMM. Aarons (1994) reports that the *wh*-topic marker is a combination of the *wh* and topic markers. This NMM retains the *wh* lowered brow, but adds a topic-marking raised chin and tensed upper cheek. However, Neidle et al. admit that this NMM "does not always distinguish *wh*-topics from nontopic *wh*-phrases" (2000:115). While the presence of a *wh*-topic could be problematic for B&M's logic as laid out in Table 1, it is only a problem if this *wh*-topic is in the same clause as the verb (14). To the extent that the claims in Table 1 hold, this test is valid. To the extent that the claims are questioned, further exploration is required.

In the elicitations below, my consultant requested a great deal of situational information (how many people are in the room, etc.) that may not be directly relevant to the elicitation, but in some cases may have resulted in the elision of material. As such, when items are parenthetical in the gloss, the informant was instructed to produce the target, but his simulated discourse situation allowed him to make these omissions.

The first set of sentences question the subject of GIVE. The target is: 'who gave you the ball?'

- (18) BALL, WHO GIVE INDEX<sub>2</sub>?  
'The ball, who gave (it) to you?'
- (19) BALL, WHO GIVE?  
'The ball, who gave (it to you)?'
- (20) WHO GIVE<sub>2</sub>?  
'Who gave you (a ball)?'

---

<sup>11</sup> I elicited pilot data from an ASL-English bilingual. These judgments should be replicated with both different ASL signers (especially native monolingual signers) and different interviewers. Some of the data below depend on distinguishing the citation form of GIVE (which is similar to 1GIVE2 but with reduced path) from the use of GIVE in a sentential context, with locus markers present. Additional elicitation should focus on third person participants to clarify this distinction.

In (18), GIVE is in citation form, showing a locus marker neither for WHO nor for the pronoun INDEX<sub>2</sub>. In (19), there is again no locus marker morphology on GIVE, even when the INDEX has been dropped. (20) demonstrates use of the locus marker (GIVE<sub>2</sub>) to replace the INDEX. In none of the three cases, however, is there a locus marker present to indicate the person doing the giving, which is the element being questioned. This suggests that WHO may not be able to co-occur with the locus marker morphology. This is consistent with a PI account of the locus markers on the verb, where BALL, WHO <sub>3</sub>GIVE (explicitly marking third person on GIVE) would be predicted to be unacceptable due to a topic/focus clash.<sup>12</sup> An alternative explanation that should be entertained is that the marking of grammatical person of an unknown referent is not permitted. That is, since the giver of the ball is unknown, it is not possible to use locus marking to identify the giver with the verb, as no such space has been assigned to them.

Compare, however, the data in (21). The target remains the same: ‘who gave you the ball?’

- (21) <sub>3</sub>GIVE<sub>1</sub> WHO?  
‘They<sub>a</sub> gave you (a ball). Who<sub>a</sub>?’

The subject of GIVE is being questioned as in (18-20), but unlike (18-20), GIVE carries locus markers for both the subject and object. Note, however, that WHO is now in a different position than it is in (18-20). Because it is no longer in the preverbal position for subjects, we assume WHO is not *in situ* in this example, even though it is still the subject that is being questioned. If GIVE and WHO are no longer in the same clause<sup>13</sup>, we do not need to worry about TOP and FOC feature clashes (the prohibition in (11) no longer applies). This is consistent with B&M’s third prediction (illustrated in (16) for Chichewa), that an item associated with an incorporated pronoun can be questioned if it is in a different clause than the incorporated pronoun.

The remaining sentences provide a different target: ‘who did you give the ball to?’ Thus we are now questioning the indirect object of GIVE.

- (22) BALL, <sub>2</sub>GIVE WHO?  
‘The ball, you gave (it) to who?’

- (23) <sub>2</sub>GIVE WHO<sub>sweeping locus</sub>?  
‘You gave who (a ball)?’

In (22), there is no locus marker associating GIVE and WHO, though there is a locus marker used to indicate the second person pronoun rather than an index (compare (18)). In (23) we see an additional expression on WHO, but crucially, there is still no locus marker morphology linking GIVE and WHO. I will refrain from any strong claims about the grammatical function of what I have indicated as ‘sweeping locus,’ but it appears to function as an indefinite third person.

The data in (22) and (23) are again consistent with B&M’s first prediction for incorporated pronouns. When WHO is *in situ*, no locus marker associated with the questioned element occurs with the verb. The other (non-questioned) argument may be associated with a locus marker (20-22) but that argument is not being marked with FOC, so there is no feature clash. This pattern holds whether it is the subject (18-20) or indirect object (22-23) of the verb being questioned. Additionally, (21) demonstrated that it is not impossible to associate a questioned item with a

<sup>12</sup> The acceptability of this sentence remains to be tested.

<sup>13</sup> While the clausal structure of ASL is still debated, this seems to be a reasonable assumption. The *wh*-word is displaced from its canonical position, so presumably a new structure is required. It is also possible that WHO is an independent sentence, as glossed, which would also entail WHO and GIVE being in different clauses.

locus marker on a verb, but this occurred only when the questioned item was presumably in a different clause from the verb. This pattern is expected by B&M's third predictive test.

## 5. Discussion/conclusion

These data points are admittedly a small sample of ASL, but they are all consistent with the predictions made for locus markers on ASL verbs being incorporated pronouns and not agreement markers. While far from conclusive, the data presented above is highly suggestive in its striking parallels to the Chichewa object marker, providing strong justification for the further pursuit of this line of comparative research between very different language families.

The data presented here need to be strengthened with further research with additional verbs, contexts and signers. In future elicitation sessions it would be prudent to test not only for acceptability, as done here, but key cases of unacceptability. The predicted unacceptable pattern (BALL, WHO<sub>3</sub>GIVE) should be probed explicitly. As a non-signer, I did not feel confident attempting this. Another reason it would be best to have a proficient ASL signer perform the elicitation is to guard against the possibility that the informant may have made allowances for the fact that I myself am not a signer, thus reducing naturalness in some crucial way.

The current paper not only provides preliminary support for locus markers on ASL inflecting verbs being cases of pronominal incorporation, but also provides a method of cross-linguistic research that may prove fruitful for the better understanding of ASL verbs. The issue of whether locus markers are agreement markers or incorporated pronouns is not a small incidental issue of ASL verbal morphology. Instead, it represents a way to observe the status of verbal arguments in ASL, which can impact analyses of topic structure and clause boundaries.

## 6. References

- Aarons, Debra. 1994. "Aspects of the Syntax of American Sign Language". Doctoral dissertation, Boston, MA: Boston University.
- Allan, Keith. 1983. "Anaphora, Cataphora, and Topic Focusing: Functions of the Object Prefix in Swahi." In *Current Approaches to African Linguistics*, edited by Ivan R Dihoff, 322–355. 1. Foris, Dordrecht.
- Askins, David, and David Perlmutter. 1995. "Allomorphy Explained through Phonological Representation: Person and Number Inflection of American Sign Language Verbs." Manuscript.
- Baker, Mark C. 2008. *The Syntax of Agreement and Concord*. Cambridge; New York: Cambridge University Press.
- Baker-Shenk, Charlotte Lee, and Dennis Cokely. 1991. *American Sign Language: a Teacher's Resource Text on Grammar and Culture*. Washington, D.C.: Clerc Books, Gallaudet University Press.
- Barrett-Keach, Camillia. 1995. "Subject and Object Markers as Agreement and Pronoun Incorporation in Swahili." In *Theoretical Approaches to African Linguistics*, edited by Akinbiyi M Akinlabi, 1:109–116. Trends in African Linguistics. Trenton NJ: Africa World Press.
- Bellugi, Ursula, and Susan Fischer. 1972. "A Comparison of Sign Language and Spoken Language." *Cognition* 1 (2–3): 173–200.
- Berenz, Norine. 2002. "Insights into Person Deixis." *Sign Language & Linguistics* 5 (2): 203–227.
- Boas, Franz. 1911. *Handbook of American Indian Languages*. Smithsonian Institution Bureau of American Ethnology Bulletin 40. U.S. Government Printing Office.
- Bresnan, Joan, and Sam A. McHombo. 1987. "Topic, Pronoun, and Agreement in Chicheŵa." *Language* 63 (4) (December 1): 741–782.
- Deen, Kamil Ud. 2006. "Subject Agreement in Nairobi Swahili." In *Selected Proceedings of the 35th Annual Conference on African Linguistics*, 225–233.
- Engberg-Pedersen, Elisabeth. 1993. *Space in Danish Sign Language: The Semantics and Morphosyntax of the Use of Space in a Visual Language*. International Studies on Sign Language and Communication of the Deaf v. 19. Hamburg: Signum.
- Givón, Talmy. 1976. "Topic, Pronoun and Grammatical Agreement." In *Subject and Topic*, edited by Charles N Li, 149–188. London: Academic Press.

- Greenberg, Joseph H. 1993. "The Second Person Is Rightly so Called." In *Principles and Prediction: The Analysis of Natural Language. Papers in Honor of Gerald Sanders*, 9–24. Current Issues in Linguistic Theory 98. Amsterdam: Benjamins.
- Jelinek, Eloise. 1984. "Empty Categories, Case, and Configurationality." *Natural Language & Linguistic Theory* 2 (1) (June 1): 39–76. doi:10.2307/4047560.
- Keenan, Edward, and Bernard Comrie. 1977. "Noun Phrase Accessibility and Universal Grammar." *Linguistic Inquiry* 8: 63–99.
- Kegl, Judy A. 1986. "Clitics in American Sign Language." In *The Syntax of Pronominal Clitics*, edited by Hagit Borer, 19:285–309. Syntax and Semantics. New York: Academic Press.
- . 1990. "Predicate Argument Structure and Verb Class Organization in the ASL Lexicon." In *Theoretical Issues in ASL Linguistics*, edited by C Lucas, 149–175. Washington, D. C.: Gallaudet University Press.
- Lillo-Martin, Diane. 2002. "Where Are All the Modality Effects?" In *Modality and Structure in Signed and Spoken Languages*, edited by Richard P Meier, Kearsy Cormier, and David Quinto-Pozos, 241–262. Cambridge, England: Cambridge University Press.
- Lillo-Martin, Diane, and Edward Klima. 1990. "Pointing Out Differences: ASL Pronouns in Syntactic Theory." In *Theoretical Issues in Sign Language Research 1: Linguistics*, edited by Susan D Fischer and Patricia Siple, 191–210. Chicago, IL: University of Chicago Press.
- Marten, Lutz, Nancy C. Kula, and Nhlanhla Thwala. 2007. "Parameters of Morphosyntactic Variation in Bantu1." *Transactions of the Philological Society* 105 (3): 253–338.
- Mathur, Gaurav. 2000. "The Morphology-Phonology Interface in Signed Languages". Doctoral dissertation, Cambridge, Massachusetts: MIT.
- Meier, Richard P. 1990. "Person Deixis in American Sign Language." In *Theoretical Issues in Sign Language Research 1: Linguistics*, edited by Susan D Fischer and Patricia Siple, 175–190. Chicago, IL: University of Chicago Press.
- Meier, Richard P, and Diane Lillo-Martin. 2009. "Does Spatial Make It Special? On the Grammar of Pointing Signs in American Sign Language." In *Hypothesis A/Hypothesis B: Linguistic Explorations in Honor of David M. Perlmutter*, edited by Donna B Gerds, John C Moore, and Maria Polinsky, 345–360. Cambridge, MA: MIT Press.
- Michel, Dan. 2010. "Word Order and Object Marking in GiTonga". Paper presented at the Arizona Linguistics Circle 4, University of Arizona, Tucson, AZ.
- Neidle, Carol, Judy A Kegl, Dawn MacLaughlin, Benjamin Bahan, and Robert G. Lee. 2000. *The Syntax of American Sign Language: Functional Categories and Hierarchical Structure*. MIT Press.
- Neidle, Carol, Dawn MacLaughlin, Robert G. Lee, Benjamin Bahan, and Judy Kegl. 1998. "The Rightward Analysis of wh-Movement in ASL: A Reply to Petronio and Lillo-Martin." *Language* 74 (4): 819–831.
- Padden, Carol. 1988. *Interaction of Morphology and Syntax in American Sign Language*. Outstanding Dissertations in Linguistics Series IV. New York: Garland Press.
- Petronio, Karen, and Diane Lillo-Martin. 1997. "WH-Movement and the Position of Spec-CP: Evidence from American Sign Language." *Language* 73 (1): 18–57.
- Rathmann, Christian, and Gaurav Mathur. 2002. "Is Verb Agreement the Same Crossmodally?" In *Modality and Structure in Signed and Spoken Languages*, edited by Richard P Meier, Kearsy Cormier, and David Quinto-Pozos, 370–404. Cambridge, England: Cambridge University Press.
- Riedel, Kristina. 2009. "The Syntax of Object Marking in Sambaa: A Comparative Bantu Perspective". Doctoral dissertation, Leiden University.
- Sandler, Wendy, and Diane Lillo-Martin. 2009. *Sign Language and Linguistic Universals*. Cambridge, England: Cambridge Univ. Press.
- Seidl, Amanda, and Alexis Dimitriadis. 1997. "The Discourse Function of Object Marking in Swahili." In *CLS 33: Papers from the Main Session, April 17–19*, edited by Kora Singer, Randall Eggert, and Gregory Anderson.
- Thompson, Robin, Karen Emmorey, Robert Kluender, and Clifton Langdon. to appear. "The Eyes Don't Point: Understanding Language Universals through Person Marking in American Signed Language." *Lingua*
- Todd, Peyton. 2009. "Does ASL Really Have Just Two Grammatical Persons?" *Sign Language Studies* 9 (2): 166–210.
- Wald, Benji. 1979. "The Development of the Swahili Object Marker: A Study in the Interaction of Syntax and Discourse." In *Discourse and Syntax*, edited by Talmy Givón, 12:509–524. Syntax and Semantics. New York: Academic Press.
- Zwart, Jan Wouter. 1997. "Rethinking Subject Agreement in Swahili". Manuscript. NOW/University of Groningen.

Dan Michel  
 Department of Linguistics  
 University of California, San Diego  
 dcmichel@ucsd.edu