

HERE THERE BE MONSTERS: INDEXICAL SHIFT IN AMERICAN SIGN LANGUAGE*

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This paper examines the phenomenon of Role Shift in American Sign Language (ASL). Role Shift has most recently been analyzed as Indexical Shift (Schlenker 2015, 2016), following on analyses of other signed languages (Quer 2005). We not only replicate Schlenker's findings, lending support to his analysis, but we extend the investigation to the interaction of Role Shift (RS) and SELF forms, while addressing the specific question of how signers refer to themselves during RS. In line with Schlenker, but disproving our initial speculation that a SELF form might be used, we find that a unique spatial reference only available under role shift is used for this purpose.

1. Pronominal reference and role shift

Like most signed languages, American Sign Language makes use of spatial reference in its pronominal system. If the referent is not present during the discourse, a signer will first establish a locus for an individual, placing that person in the immediate signing space. Further pronominal references are made by gesturing toward the locus. In cases where the referent is present during the discourse, a pointing gesture is made in the direction of the individual. First person is always denoted by a gesture toward the speaker's body. As there is no distinction made between second and third person reference when a third person is present, ASL has been argued to have only a two-way person feature system, distinguishing speakers from all other referents. However, Padden (1990) and Neidle and Lee (2006) report that eye gaze can distinguish second from third person reference, as second person referents can be identified by this non-manual marker as well as through the primary hand gesture. Thus, it may be more accurate to conclude that while there is no second/third person distinction in the manual signs, other resources are available to make the distinction. Padden observes that because this additional dimension of eye-gaze is context dependent, it cannot be incorporated into a lexical entry as a truly distinguishing feature between forms. The spatial loci are used not only for simple pronominal reference, but also are used as anchors for certain motion verbs in a pattern generally treated as verb agreement (Padden 1990), and also for SELF forms, which are discussed in more detail in the next section.

In addition to this system, ASL incorporates a construction known as Role Shift.

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Canonically described in terms of quoted speech, this involves the signer shifting their body toward the position of some other previously established entity in the signing space. While shifted, all body-directed first person signs are interpreted as referring to the individual at the locus. An example of this is given in (1):

- (1) MOM_a (SAY) ⟨POV [_{CP} Op_a IX-1_a BUSY] Mom⟩
 ‘Mom said *I’m busy.*’ or
 ‘Mom’s like *I’m busy.*’
 (Lillo-Martin 1995)

The structural analysis of this example is as in Lillo-Martin (1995), though some discussion of the notation is in order. IX is the notation for a referential pronoun in ASL literature, with the character after the hyphen indicating the overt morphological form. We will follow and in fact extend the practice in Quer (2005) of adding indices to all referential forms inside RS, while leaving the overt forms as part of the sign. Where no additional index is given for non RS pronominals, it can be inferred that the overt form maps to the intended referent. Thus, in the example above, IX-1_a is to be read as an overtly first person form whose reference in the example is indexed as *a* (Mom). We demarcate role shifts using angled brackets, with the position (and therefore reference) of the shift indicated inside the closing angled bracket.

As shown in the structural analysis, Lillo-Martin treats the shift as the overt form of a POV predicate which may or may not be embedded under matrix SAY. The POV predicate in turn selects for an embedded CP whose left edge contains an operator which re-binds first person pronouns in its scope. Through this mechanism, IX-1 is made coreferential with MOM rather than the speaker. When the matrix predicate is articulated, the sentence is effectively tri-clausal. This analysis also requires across the board homophony among indexicals, with straightforward pronouns co-existing alongside a set of logophoric context-sensitive ones which require a binder.

In the intervening years, there has been increased research on the subject of indexical shift. Originally described by Kaplan (1989) as so outlandish as to be the effect of a “monster”, this is now described as a sentential operator which alters the context from which indexicals draw their reference. A simple formulation of the semantics of such an operator is presented in Schlenker (2015):

$$(2) \quad \llbracket \text{IS}_i \text{ IP} \rrbracket^{c,g,w} = \lambda x'_e \lambda w'_s. \llbracket \text{IP} \rrbracket^{<x',w'>,g,w'}$$

The formula is interpreted as follows: a syntactic object in which an IP is sister to an Indexical Shift operator toward referent *i*, interpreted in relation to a context *c*, an assignment function *g*, and a world *w* is equivalent to the given lambda expression on the right side of the equation. It is worth noting that the operator does not simply change the assignment function, but rather alters the context in such a way to be oriented around an alternate world, and provides an individual to saturate the type *e* variable as part of that context. This flexibility allows for Indexical Shift to not merely target references via the assignment function, but will also allow for locative and spatial indexicals (e.g. *here* and *yesterday*) to

shift as well. Schlenker’s work articulates this even further to cover cases that go beyond embedding under an attitude predicate, so called Action Role Shift, but this refinement is not necessary to cope with the examples in this paper.

A key constraint upon indexical shift is the requirement defined in Anand and Nevins (2004) as ‘Shift Together’: that all indexicals within a given domain shift to the same new context. This is exemplified in the following example from Zazaki:

- (3) Vizeri Rojda; Bill_j-ra va ke ez to-ra miradiša.
 Yesterday Rojda Bill-to said that I you-to angry.be-PRES
 ‘Yesterday, Rojda said to Bill “I am angry at you”’
 Lit: ‘Yesterday, Rojda said to Bill that I am angry at you.’
 (Anand and Nevins 2014: 13)

For the readings to be clear, it should be assumed that the speaker and addressee of (3) are two distinct parties, neither Rojda nor Bill. The crucial observation that Anand and Nevins make is that this sentence is only two ways ambiguous, not four. It can either have the meaning parallel to the English quotative, where the first person morphology refers to Rojda and the second person to Bill, or both indexicals retain their immediate speech context meanings (Rojda and Bill). It cannot be the case that the first person pronoun refers to Rojda while the second person is the actual addressee of the utterance, for example. In addition to these sorts of examples, Anand and Nevins have examples showing temporal adverbs shifting in conjunction with pronominals.

Despite the English translation, the Indexical Shift is not true quoted speech. This is shown, again for Zazaki, using A’-extraction:

- (4) čenεke [ke Hesen_i; va [mi_i t paci kεdra]] rindeka.
 girl that Hesen said I kiss did pretty.be-PRES
 ‘The girl that Hesen_i said he_i kissed is pretty.’
 Lit: ‘The girl that Hesen_i said I_i kissed is pretty.’
 (Anand and Nevins 2014: 11)

True quoted speech (the only way in English that the first person pronoun can refer to Hesen) acts as an island for A’ extraction, and so there would be no way in English for this construction to mean that Hesen kissed the girl. However, in Zazaki, this reading is perfectly fine, which demonstrates that indexical shift is not simply quotation, but is rather a manipulation of the indexical context. The puzzle for ASL is more directly shown in the following example from Uyghur, another Indexical Shift language (Shklovsky and Sudo, 2014):

- (5) Ahmet_i manga_j [men_i sanga_j xet ewet-tim] di-di.
 Ahmet 1.SG.DAT 1.SG.NOM 2.SG.DAT letter send-PST.1SG say.PAST.3
 ‘Ahmet_i told me_j that he_i sent a letter to me_j.’
 Lit: ‘Ahmet_i told me_j I_i sent you_j a letter.’
 (Shklovsky and Sudo 2014: 36)

In this example, we see that the actual speaker referred to using first person morphology in the matrix clause is denoted by second person morphology in the shifted embedded clause. Meanwhile, under the shift, the first person morphology refers to the matrix subject.

If we assume that Lillo-Martin's analysis should be updated to one of indexical shift, then a question arises for ASL: in a situation where the speaker would normally be the second person under Indexical Shift (i.e. would be the goal/addressee in a shifted context), how would this be marked? First person morphology would necessarily be mapped to the shifted identity, marked by the physical role shift, and there is apparently no dedicated second person form available. This is the driving question of our research. However, before getting to the findings, it remains to be shown that RS should be treated as Indexical Shift.

The first major investigation into the question of Indexical Shift in signed languages arises in Quer (2005), with a focus on Catalan Sign Language (LSC) and Danish Sign Language (DSL). These languages also have a RS construction similar to ASL, and Quer argues that adopting an Indexical Shift analysis would be more economical than the positing of a POV predicate, along with the covert operator and additional set of logophoric pronouns. However, Quer's final conclusions are not entirely convincing, as LSC shows evidence of spatial locatives not shifting along with the pronominal forms, violating Shift Together, and DSL examples yielded unshifted first person pronouns where second person pronouns might be expected under indexical shift in a spoken language. The DSL context Quer describes is exactly the one driving our investigation into ASL.

Detailed investigations on an Indexical Shift treatment for RS in ASL and French Sign Language (LSF) are presented in Schlenker (2015) and Schlenker (2016). For ASL, Schlenker does report that Shift Together holds, with both first person reference and locatives shifting in parallel. Additionally, Schlenker successfully applies A'-movement diagnostics to show that RS is not merely quoted speech. Based on these findings, he proposes that (1) should be re-analyzed as follows:

- (6) $MOM_a \text{ SAY}/\emptyset \langle [_{CP} \text{ Op IX-1}_a \text{ BUSY}]_{Mom} \rangle$
 'Mom said *I'm busy*.'
 or 'Mom's like *I'm busy*.'

This treats the sentence as uniformly bi-clausal, and the proposed operator is now the sentential Indexical Shift operator or 'monster', heading the CP complement of the matrix verb. For our purposes, the operator can be interpreted as in (2) above. To keep the analysis uniform, Schlenker does need to propose that SAY has both an overt and a null form which can select a clause headed by the monster.

However, there are some weaknesses in the analysis. Methodologically, the data is extensively reported, though based primarily on a single consultant, which is even reported in the paper as an issue for future work. More closely related to our research question, Schlenker does not address the issue of whether SELF forms shift the same way as regular pronouns, and never reports any cases where a speaker under RS would most naturally refer to themselves in the second person. Because there is still an open question as to whether Shift Together holds for signed languages, we must consider the possibility that ASL might re-

These forms accounted for 21.4% of the total. All three types of emphatics discussed so far only occurred with SELF++ or SELF-ONE++. The fourth type, independent emphatics, only occurred with SELF+. These are the least common type, showing up as 8.4% of the SELF forms. Independent emphatics mark a referent's ability to do something themselves, such as in (8):

- (8) IX-2 BORN 2-SELF+ WASH DIAPERS
 2SG.DEICTIC 2SG.INDEPENDENT.EMPHATIC
 palm-up-hands.
 GESTURE
 'When you give birth you will have to wash diapers yourself.'
 (Wilkinson 2013: 10)

It has been proposed (by Liddell (2003), cited in Wilkinson (2013)) that SELF+ is an emphatic which marks a referent's ability to do something independently. This was corroborated by Wilkinson's findings, as SELF+ shows up only as an independent emphatic and in formulaic sequences which also portray the meaning of independence when used with SELF+.

Although ASL has been shown to shift obligatorily, none of Quer or Schlenker's data looks at how the signer is referred to under shift, nor how reflexives (or emphatic SELF forms) interact with RS. As well, having such emphatic indexicals as SELF forms could possibly cause a break in the obligatory nature of context shifting in ASL. This is somewhat plausible, as in other signed languages, partial shifting is known to occur. Although ASL has been noted to obligatorily shift everything, it is interesting to look at whether it may break this rule for very emphatic indexicals. The data collected and examined in the remainder of this paper addresses these two questions.

3. Data collection and findings

The data gathered for this project came from three consultants, all of whom had been signing since childhood. Two of the consultants grew up and currently live in Calgary, AB (consultants 1 and 2), and the other grew up in rural Manitoba and relocated to Calgary within the last 5 years (consultant 3). All have been deaf since birth or early childhood. All three consultants have been using ASL as their main method of communication for the majority of their lives, and are active participants in the Deaf community.

Testing involved the eliciting of ASL sentences and short narratives using ASL and English as stimuli. The first portion of the testing involved a number of test sentences involving pronominals presented in written English, and translated by the consultants into ASL. They were then asked if different forms of the pronominals could be substituted, and if they could be, did they cause a change in the meaning of the sentence. Using this, the full pronoun paradigm¹ was tested. As well as this list of sentences, a number of tests examining RS were used, including many seen in Anand and Nevins (2004). The second portion

¹This includes the three SELF forms as well as the regular pronoun.

focused on RS and provided longer contexts looking at whether the same patterns were observed, and if differences in the attitude of the portrayed individual changed the usage of pronominal forms under shift. These elicited sentences, as well as a few elicited narratives, were videotaped and transcribed for later examination. Consultants were compensated for their participation.

Much of the data collected on the distribution of the three SELF forms in ASL matches up with Wilkinson's findings. However, some of it is in direct opposition to her findings, and therefore must be explained. The data obtained from consultant 3, who grew up in Manitoba, echoed Wilkinson's data, stating that SELF++ is the only form available as a reflexive, and SELF-ONE++ as well as SELF+ are not able to be used in that capacity. This is seen in the following example:²

- (9) a. #JOHN-a SEE a-SELF++.
'John saw himself.' (Consultant 3)
- b. #JOHN-a SEE a-SELF-ONE++.
'John saw himself.' (Consultant 2)

Although consultant 3, who produced (9a), and consultant 2, who produced (9b), had different usage of SELF forms, the structure of the sentence is the same. Consultant 1 produced a sentence almost identical to (9b), although using IX instead of spelling John's name. However, when figures were used in the elicitation, SELF++ was preferred for consultant 1. This implies that perhaps the anchoring index finger contained in SELF-ONE++ is unnecessary (or even incorrect), when the referent has a physical presence. Because SELF-ONE++ was available in a reflexive context for only consultants 1 and 2, while consultant 3 used SELF++ exclusively in reflexive contexts, perhaps there is a regional variation in the usage of SELF forms in reflexive contexts. The split in usage was directly between the signers who grew up in Calgary and Manitoba, and although this hypothesis would require more data from a more varied group of signers, it seems reasonable to posit regional differences as a possibility for the distinction. Although Wilkinson predicts that only SELF++ should appear as a reflexive, SELF-ONE++ also appears to, at least in Calgary, be capable of portraying a reflexive meaning, as seen in the following:

- (10) a. #JOHN HATE a-SELF-ONE++.
'John hates himself.'
- b. ? #JOHN HATE a-SELF++.
'John hates himself.'
- c. * #JOHN HATE IX-a.
'John hates himself.' (Consultant 2)

²In these and all further elicited examples, the # symbol before a proper name refers to fingerspelling of the name, with a spatial locus sometimes appended; #JOHN-a should thus be read as the (spelled) name 'John' placed at locus *a*. Within a given example, spatial loci are held constant, so further IX and SELF forms using the same locus will be coreferential with the name.

With these examples, consultant 2 noted that (10b) is distinctly worse than (10a), and (10c) is not good at all. This implies that at least for a portion of signers, SELF-ONE++ is better as a reflexive than SELF++. Also, IX pronouns and SELF pronouns are distinctly different, and cannot exist in the same environments much of the time. However, there are circumstances where IX and SELF seem to be interchangeable, such as the following³:

- (11) a. #JOHN SIGN IX-1 SMART.
 ‘John said I am smart.’
 b. #JOHN SIGN 1-SELF++ SMART.
 ‘John said I am smart’ (Consultant 2)

It seems to be in these examples that condition A may be optional. However, it is also possible that (11b) is showing an emphatic construction, as most sentences conformed to expectations, and the only other exceptions were sentences of the same form, replacing ‘I’ with ‘he’ (to mean John). This apparent difference is also noted in Kimmelman (2009), who states that he has not “found data on languages that have reflexive pronouns but still use plain pronouns in the same co-argument context as reflexive ones” (Kimmelman 2009: 10). He also notes that some languages are claimed to lack distinction between reflexives and plain pronouns, for example, Old English. However, given the systematic judgements in core cases, this will be put aside, noting only that without more data providing results similar to those above, there is not enough evidence to claim that reflexives and IX pronouns are interchangeable in ASL.

As well as constructions such as (11), there are a few other constructions that showed potential differences in binding reflexives than English. For instance, SELF appears to be able to show up in subject position, as shown below:

- (12) a. IX-a LIKE CAT
 ‘He likes cats.’
 b. a-SELF++ LIKE CAT
 ‘He likes cats.’ (Consultant 1)

These sentences were elicited as part of a two sentence set, where the first sentence was *John is a nice man*, although only the second sentence, *He likes cats* was signed. These examples are from consultant 1, while consultant 2 preferred SELF-ONE++, and noted that IX was acceptable, but not as good. This is quite surprising, as reflexive pronouns are typically not allowed to exist without a locally binding antecedent. However, this would not be surprising if this were a construction such as the following:

- (13) MAN NAME #RICK #HOLT R-CHIN-NAME-SIGN NICE 3-SELF++ WORK
 FOR #PANAM AIRPLANE SAME WAITER #STEWARD
 ‘A man named Rick Holt, his name sign is initialized R on the chin, is nice. He

³The sign glossed as SIGN was noted by consultants as equivalent to verbal *say*, but indicating signed communication.

works for Pan Am as a waiter and a steward.’
(Wilkinson 2013: 9)

Wilkinson labels this usage of SELF++ as an argument emphatic, which she notes can show up using either SELF++ or SELF-ONE++. If the sentences in (12) are in fact emphatic, that would explain why IX is dispreferred, as it does not easily convey the emphatic meaning. This seems like the most probable explanation, as differences in binding effects in ASL follow the same general patterns as English in most other cases for conditions A and B. Condition C also seems to be in full effect, as *He_i said John_i likes cats* could not be elicited, but instead produced what is seen below:

- (14) IX-a #JOHN SAY IX-a LIKE CAT
‘John said he likes cats.’ (Consultant 1)

This example is exactly what you would expect, with the antecedent of the pronoun being John. While binding conditions may not be completely accurate representations of how the binding of pronominals actually works in language, they are a decent starting point, especially when comparing previous analyses to gathered data.

Although differences were found in the distributions of SELF++ and SELF-ONE++ between the data gathered and Wilkinson’s findings, the findings regarding SELF+ were spot on. More than one of the consultants noted that SELF+ was only used as an emphatic, and consultant 1 provided the following:

- (15) HELP-2-SELF+
‘help yourself’ (Consultant 1)

This construction, which seems to be a case of what Wilkinson labels ‘formulaic sequences’ was provided as a potential use of SELF+. SELF+ was not noted as a viable option in any of the provided sentences or narratives.

Several tests were used to look at role-shifting, and specifically the behaviour of pronouns under RS. In addition to these tests, the distribution of pronominal forms under RS was analyzed in comparison to their distribution in non-shifted contexts. In general, the same pronominal forms used outside of shifted environments were used inside them, as can be seen in (16):

- (16) a. #BILL THINK IX-a #JOHN_a LIKE a-SELF-ONE++
‘Bill thinks John likes himself.’
b. #BILL_i THINK ⟨IX-a_j LIKE a-SELF-ONE++_j *Bill*⟩
‘Bill thinks John likes himself.’ (Consultant 1)

In these examples, there are no major differences between (a) and (b). Both sentences use the same SELF form, and both show an overt verb in the main clause. However, this is not always the case, as seen below:

- (17) a. #BILL SAY IX-a #JOHN LIKE a-SELF++
‘Bill said John likes himself.’

- b. #BILL ⟨IX-a #JOHN LIKE a-SELF++ *Bill*⟩
 ‘Bill said John likes himself.’ (Consultant 1)

The data in (17) is very similar to that seen in (16), with the only difference being the lack of overt matrix verb in (17b). This lack has been explained by saying that there is a covert predicate available when role-shifting. Schlenker notes these covert predicates, and states that when there are sentences containing null verbs, they are re-interpreted as SAY. He calls this a ‘rescue strategy,’ and defines it as when “a sentence results in a presupposition failure because it contains a role-shifted clause $RS_{a_}$ which is not embedded under an attitude operator, re-interpret that clause as $SAY RS_{a_}$, where SAY is a covert version of SAY” (Schlenker 2015, pg 32). This seems a reasonable strategy, as all data collected, as well as that previously available containing sentences lacking overt verbs are attitude shifting contexts.

As well as showing that the matrix verb is optionally overt, the data collected enforced Schlenker’s claim that Shift Together holds in ASL.

- (18) #JOHN_i 2-DAYS-AGO #JOHN_i SIGN ⟨IX-1_i PASS YESTERDAY *John*⟩
 ‘Two days ago John said that he passed the test yesterday (three days ago).’
 (Consultant 2)

This example is similar to examples used by Shklovsky and Sudo to show Shift Together. Within the shifted context, not only the 1st person pronoun changes reference, but also the temporal indexical ‘yesterday’, which shifts to mean three days ago, rather than one.

SELF forms also shift with the rest of the context, as seen in (19):

- (19) a. ⟨IX-1_i #JOHN_i 1-SELF++_i DEAF *John*⟩
 ‘I, John, am myself deaf.’
 b. * IX-a #JOHN-a IX-a THINK ⟨1-SELF++_a SMART *John*⟩
 ‘John thinks himself smart.’ (Consultant 1)

However, while the SELF form is acceptable in (19a), it is not in (19b). The consultant stated that using a SELF form in this context was simply ‘too much’, as shifting already gives the sentence emphasis. This is a separate issue however, and even when using very emphatic reflexives, the shifted context held, and no indexicals had an interpretation outside of the shifted context. This means that even SELF forms obligatorily shifted with the rest of the clause, though using a SELF form to refer to the referent whose attitude was being reported inside the shift was only ever elicited in cases such as (19a), where there is a repeated local binder inside the shifted clause. This data shows that while the usage is constrained, morphologically first person SELF forms do not refer to the actual signer.

Returning then to the issue of testing contexts in ASL where speakers need to refer to themselves inside role shift, we found that inside a shifted context, the speaker is denoted by referencing their original locus, which we symbolize as IX-o to uniquely refer to the spatial position occupied by the signer before shifting:

- (20) IX-a THINK ⟨IX-o₁ SMART IX-o₁ John⟩
 ‘John thinks I’m smart.’ (Consultant 3)

In this example, John is saying that he thinks the speaker is smart. IX-o refers to the original position of the signer, before shifting. This follows from analyzing RS as a result of a c-commanding context-shifting operator as in Shklovsky and Sudo (2014), as the entire context does literally shift, including the change from IX-1 outside of the shifted context, to IX-o. This new locus o is unavailable outside shifted contexts, as outside, this referent would be referred to by the 1st person marker. This is a marker that the context does very literally shift, and that the signer is no longer ‘being themselves’, but rather someone else. There is no reversion back to the unshifted context when referring to the signer, nor is there any sort of emphatic form. Inside the shifted clause, IX-1 refers to the individual from whose perspective the shift is occurring, as seen in the following:

- (21) #JOHN THINK ⟨IX-1 SMART John⟩
 ‘John thinks “I am smart.”’ (Consultant 3)

This example shows that IX-1, inside the shifted context from John’s perspective, refers to John. It also shows that Schlenker’s proposal that Attitude Role Shift has a quotational component, even though it does not behave syntactically as quoted speech, appears a logical analysis, as a sentence containing direct quotation in English can be translated into ASL using role-shifting, as another alternative to a distinct quotational marker in ASL.

While quite a bit of useful data was able to be elicited, many of the tests involving role-shifting did not work the way they were intended to. Role-shifting, while definitely existing in ASL, does not appear to be a common construction, or is often not a conscious process. In fact, one consultant was unable to produce a shifted version of many of the sentences. He also noted that emphatic role-shifting (where the shift is physical rather than simply using eye-gaze) could only be used with a very developed context, and would be best used in a play, when acting out a narrative. Another consultant noted that role-shifting was used less as a signer grows up, as it is more common when used with children. RS was repeatedly noted to be not used in typical discourse, being reserved for storytelling, court proceedings, plays, and similar events.

One test that interestingly failed to produce the expected results was Shklovsky and Sudo’s test in Uyghur, which looked at shifting obviously non-quoted speech. The original test was as follows:

- (22) Context: Ahmet and Muhemmet are two students who took a test in class today. After the test, I met Ahmet. He said, ‘(I) passed the test’ (*men imtihandin öttim*). A while later, I met Muhemmet, who said exactly the same thing. I can report on this situation to Aygl as follows:

Ahmet we Muhemmet [(biz) imtihan-din öt-tuq] di-di.
 Ahmet and Muhemmet [(we) test-ABL pass-PAST.1PL say-PAST.3
 ‘Ahmet and Muhemmet said that they passed the test.’
 (Shklovsky and Sudo 2014: 10)

This example was meant to show that the indexicals in the shifted context remained shifted, although the embedded clause is obviously not quoted speech, as Ahmet and Muhemmet never spoke together. Furthermore, this demonstrates the extreme range of shifting possible in Uyghur, as the first person plural refers to neither of the actual discourse participants. Although the same context was tested (with John for Ahmet and Bill for Muhemmet), only consultant 1 was able to produce the equivalent with role shifting in ASL, as seen below:

- (23) Context: John and Bill are two students who took a test in class today. After the test, I met John. He said, "(I) passed the test". A while later, I met Bill, who said exactly the same thing. I can report on this situation to Mary as follows:
 #JOHN #BILL <TWO-OF-US PASS_{John}>
 'John and Bill said that they passed the test.' (Consultant 1)

However, even in this case, it is difficult to tell whether this can occur when John and Bill are not met at the same time. In fact, consultant 3 noted that using TWO-OF-US, equivalent to *we* when referring to two individuals, could only occur when the two people met the speaker at the same time, not in sequence. This is quite possibly due to the nature of TWO-OF-US, which moves the 'k' handshape between two loci⁴. Therefore the two referents are arguably portrayed as existing in the same place at the same time for some purpose. All three of the consultants seemed somewhat puzzled regarding what they were being asked to sign, implying that while it may be possible to sign, it is certainly not a common construction. However, one consultant also noted that it was either hard or ungrammatical to shift into two people at once, implying that perhaps this is a test which would not work in ASL due to phonological/semantic constraints requiring the perspective taken to be that of a single individual.

Another finding was that picture NPs could not be elicited from all the consultants. Two of the consultants produced something similar to (24a) below, taken from Consultant 1. Consultant 2, on the other hand, was able to produce one, as seen in (24b).

- (24) a. IX-a SEE PICTURE a-SEE-3 a-SAME-3
 'John saw a picture. He looked at it, it was the same as him.' (Consultant 1)
 b. #JOHN IX-a SEE PICTURE a-SELF-ONE++
 'John saw a picture of himself.' (Consultant 2)

Both sentences were produced after asking consultants to produce the ASL version of *John saw a picture of himself*. In the case of (24b), it was also possible to use SELF++, although the consultant noted that it meant something different, although he was not sure quite how it was different.⁵ Trying to elicit the Madame Tussaud context⁶ had a similar

⁴The 'k' handshape is formed by curling the pinky and ring fingers, and having the index and middle fingers perpendicular to one another, straight, with the thumb touching the middle finger.

⁵As well as isolating this difference, more study would need to be done to determine whether (24b) was truly an ASL utterance, or simply signing English.

⁶This is where a sentence such as *John saw himself* is used to mean that John saw a statue of himself, such as in a wax museum.

result to (24a) above. This difficulty eliciting picture NPs or semantically related structures is not altogether surprising, as the following has already been documented:

- (25) IX-1 PICTURE OBSERVE. STRIKING! IX-1 IX-3, IX-1 IX-3!
 ‘I was looking at the picture. Strange, I am there!’
 (Russian Sign Language, Kimmelman 2009: ex 15)

This is very similar to (24a) above. This example was the result of attempting to elicit the sentence corresponding to *I saw myself on the picture*, which while not a picture NP as they are traditionally thought of, has a very similar meaning and could very well be translated using the same sentence. Picture NPs, or other contexts where reflexives are contained in a context where they do not apply directly to the individual, but to a copy of them, appear to be unacceptable in signed languages. Other strategies are instead utilized to create the same meaning without referring to the picture (or statue) using a reflexive. This unacceptability of ‘copies’ seems to point towards role-shifting being a true shift, rather than simply a copied portrayal of an individual. It is not showing them as in a movie, rather it is becoming them. The difficulty in the picture NP cases also points to a possible refinement in the definition of SELF in ASL, which is restricted only to referring to the actual embodied self, rather than a representation thereof. This may explain the difficulty in eliciting a SELF form inside a role shift: two different means of referring to the same referent would be layered on top of each other, leading to the consultant’s judgement of ‘too much’.

4. Conclusion and future work

In this paper, we have provided support for Schlenker’s treatment of ASL Role Shift as an instance of Indexical Shift through a replication of his findings for the Shift Together constraint. Furthermore, we have extended his work by demonstrating that while they are difficult to elicit, first person SELF forms also shift along with the rest of the context, and that under RS, speakers make use of a unique spatial index for self reference which has so far not been documented. In further work, more controlled testing with more speakers would be useful to determine whether there is any interaction between this index and non-manual marking of the second person. While eye-gaze is already a part of the RS gesture for some speakers, and therefore might be hard to diagnose as part of a second person marking strategy, a lip rounding demonstrated by one of our consultants, as though uttering [u] along with the hand sign, may be systematically constrained. Cases where the role shift is reporting speech that was directed to the current speaker may turn out to be distinct from cases where the role shift reports speech that was about (but crucially not directed to) the current speaker. As we only observed this lip rounding in one consultant, more testing is needed. In addition to this potential contrast, our testing of SELF forms more generally suggests that there is some dialectal variation between communities. Further documentation of these variations may yet uncover that different communities will have

different ways of coping with this admittedly very rare circumstance of self reference within Role Shift.

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