I want to bring together two aspects of Sign Language described by Schlenker, namely (a) Role Shift (RS) and (b) the organization of discourse referents in signing space.

1 Ways to report on speech and thought

Spoken languages exhibit various patterns to report on speech and thought, of which quotation is the most faithful. It is illustrated in (1).

(1) Tom said: “I will see you tomorrow.”

The original utterance is copied verbatim and is arguably mentioned, not used by the speaker of (1). In writing, the utterance is marked by quotation marks “ “”. Grammatical relations between the utterance in quotation marks and the clause introducing the quotation are generally prohibited. Let me introduce a few terms on basis of (1). The reported speaker, here Tom, will be called the “protagonist” (or “speaking protagonist”) whereas the person who utters (1) will be called the “speaker” (or “narrator”, later also “signer”). The utterance context with Tom as the speaker will be called the internal context d (because it is part of the story told by the speaker) whereas the context in which the speaker utters (1) is called external context C. Contexts define various parameters such as a speaker, addressee, time, location and possibly more. In (1), the speaker of d is Tom whereas the speaker of C is whoever reads (1) out aloud.

The pronouns I and you in quotation refer to the internal context d. All other forms of reported speech and thought in languages like English are different in
this respect. Pronouns in reported speech/thought always refer to the external context $C$. Indirect speech, free indirect speech, Erlebte Rede, style indirecte libre etc. use third person pronouns to refer to the speaker of $d$ whereas first and second person pronouns refer to the speaker/addressee in $C$. This is briefly illustrated in (2)/(3).

(2)  
   a. Talking to Jane, Tom said that he would meet her tomorrow.  
   b. Tom replied to Jane without delay. He would meet her tomorrow.  
   c. Tom stared pensively at Jane who disappeared in the crowd. He would meet her tomorrow ...

(3)  
   Talking to Jane, Tom said that I would meet you tomorrow. (uttered by Ernie to Bert)

All uses of he in (2) refer to Tom, and all uses of her to Jane. When I is used, like in (3), it refers to the external speaker Ernie, and you to the external addressee, in this example Bert. Technically speaking, pronouns in English are *rigid indexicals* that are always evaluated relative to the external context $C$. This observation holds true for all European languages and many beyond, and the pattern was considered a universal feature of human language before Schlenker (2003), Anand & Nevins (2004) pointed out counterexamples (Amharic, Zazaki).

The surprising observation reported in Section 3 of the target article is that sign languages generally behave like the exceptional cases in spoken languages (Amharic, Zazaki) rather than the “normal” cases with respect to the use of pronouns in reported speech. Sign languages have a mode of “Role Shift” (RS) where the signer reports on the utterance of a protagonist. Schlenker reports that RS is marked by non-manual signs such as temporary change of eye contact from interlocutor to fictitious addressee, shift of upper body in the direction of the locus associated with the author of the reported utterance,¹ change in head position, facial expression associated to the reported agent (i.e. internal speaker) (p. 23, quoted after Quer 2005²). Passages under RS are not quotations, as Schlenker argues: There can be grammatical relations between matrix clause and reported utterance, and passages generally lack the use of quotation signs. Yet, the use of indexicals in RS differs from indirect speech in English. Schlenker surveys the following use of indexical elements.

¹ I take it that the back of the signer is moved in the direction of the locus associated with the internal speaker, so as to play-act for the latter.
² adjust to actual page
First and second pronouns refer to the internal context $d$, not to the external context $C$ (American Sign Language ASL, Langue de Signes Française LSF, Deutsche Gebärdensprache DGS, Catalan Sign Language LSC).

Other indexicals such as temporal adverbials, locative adverbials either also consistently refer to the internal context $d$ (ASL, LSF) or can show mixed orientation to either $d$ or $C$ (LSC, DGS).

Attitude marking is consistent with the attitudes of the internal speaker (ASL, LSF, LSC; no report on DGS).

attempted facial attitude marking consistent with the external signer’s attitude was consistently ranked as marked, unacceptable (if inconsistent with the internal speaker’s attitude). It is thus not possible for the speaker of $C$ to express attitudes under RS.

While these patterns of indexicals can be formally modelled in various ways, as sketched in the article, it would be interesting to see whether there is any reason why Sign languages exhibit this strong trend towards shifting indexicals under RS. For ASL and LSF, Schlenker proposes that the utterance under RS must be rendered maximally iconically, i.e. maximally similar to what the internal signer/speaker said or signed originally. This requirement makes correct predictions for radically shifting RS in Sign languages like ASL, LSF (incidentally also for Zazaki, as reported in Anand and Nevins, 2004). Yet, it remains unclear why mixed languages such as LSC or DGS require maximal faithfulness for reported pronouns but allow for a liberal rendering of temporal and local adverbials. The hypothesis that RS is always a maximally faithful rendering of protagonists’ speech which just lacks some grammatical properties of true quotation would hence be inadequate.

2 Pronouns in space

Section 2 of the target article reports how Sign languages make use of the signing space to establish a record of discourse referents (variables). For each discourse referent the signer can adopt a locus $l_i$ in space to which he can later point back in order to express anaphoric reference to the referent. The loci in signing space exploit the homomorphy between spacial regions and mereologies of entities and groups. In particular, different spaces code different referents and part-whole relations between areas code mereological part-whole relations between entities/groups and larger groups. Anaphoric cross references in discourse are thus extremely precise in Sign languages as compared to spoken...
languages, where bi- or tripartite genus systems leave many ambiguities for pronoun resolution.

Preciseness is a merit, but sometimes grammar forces too much preciseness into an utterance. This effect has been known for spoken languages where number, person and gender features must be ignored in constellations as, for example, in (4).

(4) Only JOHN showed his homework to the teacher.

The pronoun *his* presupposes that the referent is male, but (4) can be used in a context that refers to both male and female students. In order to include female students in the quantification expressed, the pronoun *his* has to be interpreted with a grain of salt, so to speak, ignoring the restriction that the referent be male. It was argued that MALE should be viewed as an interpreted feature rather than part of semantics. This allows for feature deletion in certain syntactic constellations, in order to make the correct predictions.

Schlenker, reporting on work by Kuhn, offers convincing arguments that the information coded by locus must likewise be viewed as a feature. Kuhn and Schlenker observe that example (4) can be replicated in Sign languages. According to the naïve view (dismissed in the article), one might assume that the locus $l_{\text{John}}$ codes referent John and back-reference to $l_{\text{John}}$ ensures that we talk about John’s homework. While this naïve view is sufficient for simpler examples, it predicts the following (implausible) reading for (4): John, but nobody else, showed John’s homework to the teacher. It fails to capture the more plausible reading that John presented John’s homework, but Bill failed to present Bill’s homework, Jane failed to present Jane’s homework and so on. The article corroborates this insight on basis of more sophisticated cases that I leave aside. The conclusion to be drawn is that the coding of pronouns in space conveys information which is helpful in most cases, but has to be suppressed in certain syntactic constellations in order to make the correct predictions about meaning. The locus of pronouns in signing space is thus not simply a manual necessity (“you have to sign them somewhere after all”) or a helpful gesture (“let’s give them a hint”). The locus of signing carries meaning and, if interpreted, this meaning is part of the utterance meaning.

Schlenker characterizes the system as one where the speaker can *ad hoc* establish a gender-like system with a potentially unlimited number of different genders. Ordinary gender systems code facts about the sex of referents (natural gender) or facts about the language’s lexicon (grammatical gender). The question is: Which facts about the world does this *ad hoc* gender system convey? With this question in mind, let us return to Role Shift in Sign languages.
3 Gender in reported speech and role shift

Sharvit (2008) investigates the use of gender in free indirect discourse in English. English is a natural gender language and pronouns thus code information about the sex of the intended referent. Sharvit demonstrates convincingly that in (free) indirect discourse in English, the choice of gender is driven by the protagonist’s beliefs about the sex of referent and not by the external speaker’s belief. Let us assume a story where Hansel has dressed up as his sister Gretel. Protagonist Tom, ignorant about the charade, mistakes Hansel for Gretel. (5a,b) show a possible and an impossible passage in free indirect discourse at this point of the story (examples inspired by Sharvit, 2008).

(5) Hansel entered the room, still disguised as Gretel. Tom watched the blonde person pensively.
   a. She had grown athletic, hadn’t she?
   b. #He had grown athletic, hadn’t he?

The example can be replicated in languages with grammatical gender such as German. Let us set up a similar story where the protagonist Tom mistakes einen Pokal (‘cup’, male) for eine Vase (‘vase’, female). The choice of lexical gender in free indirect speech is driven by Tom’s belief about the nature of the object, not by the narrator’s.

(6) Tom starrte auf den Pokal, den er immer noch für eine Vase hielt.
   Tom stared at the cup which he still for a vase held.
   a. Mann, war die scheußlich!
      man was pro.fem ugly
   b. #Mann, war der scheußlich!
      man was pro.male ugly

With these observations at the back of our mind, we can now take a second look at pronouns in RS in Sign languages. What would Role Shift in Sign languages look like if pronouns were to be rigid indexicals, as they are in English or German?

A first possible pattern could be that the signer uses third person pronouns and maintains their established loci under RS. This would ensure that third person pronouns continue to denote the correct referent. The passage in English in (7) would have a signed version somewhat like in (7b). Tom’s thought is supposed to be signed under role shift to Tom, and RS is indicated by square brackets \([\text{RS}]\).
Let us take a closer look at the—hypothetical—use of PRO$_b$ to refer to Tom. According to Quer, RS is signalled by a change in body position, among other things. When the external signer changes position so as to enact Tom, he moves towards locus $b$. Now, it is unclear which locus, in this new position, corresponds to locus $b$ in the matrix clause. If locus $b$ stays locus $b$, then the signer would have to sign PRO at his own current position in order to indicate locus $b$. But then, pointing to one’s own position may be awkward (and perhaps it would automatically overlap with the sign for IX-$1_b$—not having an informant I have to speculate). Alternatively, we could imagine that the signing space shifts together with the change of body position of the signer, such that the former position $b$ now corresponds to a shifted position $b'$ relative to the signer-acting-as-Tom. But here comes an epistemic puzzle. If the signer acts as Tom, how would Tom know the locus that the external speaker chose \textit{ad hoc} to talk about Tom? Drawing the parallel to examples (5a),(6a), it is as if Tom guessed the gender for a pronoun that only the external speaker knows correctly.

A similar problem does not arise in spoken languages with their fixed and limited gender systems where the choice of gender is not \textit{ad hoc}. In devising the conventions for indirect and free indirect discourse, speakers of spoken languages like English can rely on the fact that the protagonist, in all likelihood, knows the proper genders just like the external speaker does. The grammars of sign languages can not build on this assumption.

I thus hypothesize that the use of indexicals under role shift is shaped by the epistemic limitations of the internal speaker. The signing and interpretation of indexicals under role shift must not be based on knowledge that only the external speaker can possess.

The reported convention in all sign languages for pronouns under role shift does justice to this limitation. While the internal speaker can not possibly know the spacial "gender" of pronouns referring to himself he will always know speaker and addressee of $d$. Using first/second person pronouns thus does not create epistemic paradoxes. The convention extends naturally to agreement verbs (DGS, Hübl and Steinbach 2012) where the role-shifted locus of the signer coincides with the locus of the first person for that verb.

The hypothesis brings into focus the use of other pronouns under role shift. Assume that the internal speaker \textit{Tom} uses a third person pronoun to refer to a referent $X$ that was earlier introduced and assigned space $l_a$ by the external speaker. Does sign language support the use of PRO$_a$ to refer to $X$ under role
shift? (7), repeated below, contains one instance of such a pronoun when Tom is thinking about Jane.

(7) Jane\textsubscript{a} arrived. Tom\textsubscript{b} thought \lbrack he liked her\textsubscript{a}\rbrack\textsubscript{RS}

Tom does not address Jane. Hence, the signer cannot use a second person pronoun to refer to Jane. Would the corresponding pronoun PRO be signed at locus \(l_a\), a shifted locus \(l_a'\) or a new locus of Tom’s choice? In order to respect the epistemic limitations of the internal speaker, it seems plausible that the assignment of loci to discourse referents undergoes a Reset under role shift. Reset in (7) would mean that the pronoun corresponding to \(her\) is signed at an arbitrary locus that does not code any information about the referent.

While the paper does not include examples of exactly the structure in (7), other examples suggest that Reset indeed takes place. Schlenker discusses example (41) where the place Los Angeles is referred to in the matrix clause and taken up by \(HERE\) under role shift. The glossing of the example reports that one informant introduced a locus \(l_b\) for ‘Los Angeles’ in the matrix clause whereas the second informant did not. Importantly, neither of the two informants took up \(l_b\) when signing the local adverbial \(HERE\) under role shift: the adverb is glossed as \(HERE\), not as located \(HERE_b\). According to the conventions of ASL, the neutral \(HERE\) must be interpreted as “the place of internal context \(d\)”, which in the example is Los Angeles. In this way ASL’s conventions respect the epistemic limitations of the internal speaker in the case of local adverbials.

German sign language adopts a different way to respect the epistemic limitations of the internal speaker. According to the conventions of DGS, time and space indexicals under role shift are interpreted arbitrarily, i.e. they can refer either to \(C\) or to \(d\). This strategy implements a different way to Reset the indexing system under role shift. Time and place indexicals are neither part of the external nor the internal speaker’s local referencing system; they are as underspecified as time and place pronouns in spoken languages.

Schlenker’s article highlights that data in sign language are extremely difficult to elicitate. Evaluation of new evidence has to proceed carefully and further data have to be gathered in order to find out whether the epistemic limitations of the internal speaker are the cause behind the special use of indexicals under RS in sign languages. Yet, the hypothesis is testable. We’d have to compare original utterances and their reported renderings, including role shift. We’d have to consider utterances that include third person pronouns with a meaningful locus and their rendering in reported speech/role shift. According to the \textit{iconicity principle}, the reported rendering of the third person pronoun should copy the loci of the original utterance as faithfully as possible.
The Reset principle is compatible with data where third person pronouns in
reported speech/role shift receive arbitrary loci. In actual language use, the
signer who reports on an earlier utterance (in RS) may not even remember the
actual signing position of earlier discourse referents. The Reset principle would
thus allow reported speech/RS even if the signer has imperfect knowledge of the
original utterance.

4 Conclusion

Pronouns under role shift in sign languages follow rules that seem to violate
near-universals in spoken languages (or at least spoken languages at the
focus of linguistic research). Sign languages under role shift use first/second
person pronouns where modes of reported speech in spoken languages tend
to use third person pronouns. The use of other indexicals follows different
conventions in different sign languages. Schlenker proposes that these pat-
terns are guided by an iconicity principle. My commentary proposes the
principle of respecting the internal speaker’s epistemic limitations as an addi-
tional reason behind these patterns. Respect for the epistemic limitations can
be implemented in various manners, thus potentially covering not only
strictly iconic languages such as ASL and LSF, but also the patterns of DGS
or LSC.

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