The Point of View Predicate in American Sign Language

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In this chapter, I discuss several aspects of the so-called role shifting or shifting reference system in ASL. I concentrate on an analysis of the shift itself, arguing that it takes a particular structural position and has a specified structural complement. I also focus on the change in reference for certain pronouns that accompanies this shift. Specifically, the pronoun glossed '¡PRONOUN', which usually has first-person reference, changes its reference in the context of referential shift. My discussion does not shed much light on the various conditions under which referential shift is used, but it is hoped that a more detailed analysis of these conditions will be facilitated by the arguments presented here.

SHIFTING REFERENCE SYSTEM IN ASL

The sign glossed '¡PRONOUN' is usually interpreted as 'me' (see (1a, b)). This sign takes the form of directing an extended index finger toward one's own chest. Non-first person reference is usually obtained by pointing toward a location other than the signer (1c). This location should be the location of a referent present in the signing situation, or a location associated with a non-present referent. Associating referents with locations (or imagining referents to occupy locations, as pointed out by Liddell, 1990) is a familiar

(1) a. īPRONOUN LECTURE.
   'I'm lecturing.'

   b. īCAROL THINK īPRONOUN LECTURE.
   'Carol thinks I'm lecturing.'

   c. īPRONOUN LECTURE.
   'S/he's lecturing.'

   However, the referent associated with īPRONOUN can change. This happens under conditions frequently called role shifting, and sometimes called shifting reference. (These conditions have been discussed by several researchers, sometimes using different terms, including Loew, 1984; Meier, 1990; Padden, 1986, 1990; and Shepard-Kegl, 1985.) In role shifting, the signer is sometimes said to take on another character's role, as in acting a part. However, as Padden (1986, 1990) has pointed out, it is misleading to think of this construction in terms of play-acting rather than grammar. In addition, she points out that the term role shifting collapses together several potentially distinct structures. Furthermore, I argue that although taking on a role is one use of this device, role shifting doesn't fully describe this construction. For these reasons I use terms like shifting reference rather than role shifting in my discussion of this structure.

   One commonly observed occurrence of reference shift is in structures of reported speech. The signer's body shifts slightly to represent another location while quoting the speech of the referent previously associated with that location. This phenomenon is similar to extended direct discourse, quoting different participants. Examples are given in (2). Note that I am following Padden's notation, using angle brackets for reference shift as opposed to a line above the glosses (which is used for grammatical facial expressions).

(2) a. īHUSBAND SAY
    { īshift
      īhift) FINE, YES, TAKE-PILLS MEDICINE.
      'My husband said, "Ok, fine, (you) must take your medicine."'
    }

   b. īhift) īPRONOUN WILL BETTER?
   'His mother replied, "Will I get better?"'

   In this example, the husband and his mother have previously been established in the discourse. In (2a), the signer uses the verb SAY, then shifts the body toward the husband's location. What follows is understood as a quotation of the husband's words. In (2b), the quotation shifts to his mother. In this example, īPRONOUN refers to her. So the discourse continues, back and forth, in (2c,d,e). In (2e), the use of the first-person pronoun īPRONOUN refers to the husband, who is then being quoted.

   But reference shift in ASL goes well beyond reported speech. It is not necessarily quoting the words of another participant. It can also be used to "quote" participants' thoughts and feelings. In addition, it can be used to describe a scene from one participant's perspective, or in my terms, from that participant's point of view. I have observed that in this way, it is similar to one colloquial English use of like, as in, She's like, wow, I can't believe he said that! In fact, Padden (1986) uses like to translate reference shift. In my examples, I provide both a more literal translation, including subscript indices to show coreference, and a colloquial form using like. The examples in (3) illustrate uses of referential shift that are not reported speech. (I have adapted the notation used in cited examples to be consistent with my own notation.)

(3) a. īHUSBAND (SHIFT) WORK.
   'The husband was like—"here I am, working."'
   (Example from Padden, 1986.)

   b. YESTERDAY īPRONOUN SEE īGIRL.
   WALK īPERSON-WALK-TOā.
   { īshift
      īmm
      īshift)
      īLOOK-UPā, MANā,PERSON-MOVE-TOā, SCARED.
      'Yesterday I saw this girl. She walked by in front of me. She was strolling along, then she looked up and saw this man come up to her. She was scared.'
   (Example from Meier, 1990.)

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1 I am agreeing here with Meier (1990) that there is a first/non-first distinction in ASL, departing in this respect from Lillo-Martin and Klima (1990).
c. 

\[\text{PRONOUN DREAM, PRONOUN BECOME PRESIDENT.}\]
\[
(\text{shift})
\]
\[\text{(SHIFT) PRONOUN CONTROL PEOPLE.}\]
\[
(\text{shift})
\]
\[\text{PRONOUN MEET multi PEOPLE.}\]

'I dreamed I became the president.
(From the point of view of the signer-as-president.)
I controlled people. I met all sorts of people.'
'I dreamed I became the president. I was like, controlling people, meeting all sorts of people.'

In (3a), the husband has not necessarily said or even thought anything with the word \textit{work}—the sentence asserts that the husband is working, and the facial expression or intonation of the signer might indicate his facial expression or general attitude. In (3b), the shift shows the situation from the girl's point of view: She is walking along, and when she looks up, she sees a man come towards her. The location agreement on \textit{PERSON-MOVE-TO}, if not under the scope of a shift, would indicate that the man walked up to the signer; because of the shift, it means that the man walked up to the girl. The action of a man walking up to the girl is not part of her speech or thoughts, but the use of the shift forces the change in agreement. In (3c), the shift shows the point of view of the signer, in his dreamed-of role as the president. In this case, \textit{PRONOUN} refers to the signer, but in the hypothetical situation introduced by the dream.

Thus, reference shift affects the interpretation of a sentence by presenting it from a particular referent's point of view. It results in a change in the reference for first-person pronouns or verb agreement, as well as the overall affect on interpretation. It can take the form of shifting the shoulders slightly to the right or left, forward or backward (these movements are usually called body shifting); in addition, it can be signified by changing the eyegaze, head movement, index fingernail, and/or adopting the facial expression of the participant whose point of view is being expressed. Some additional examples using these alternate forms are given in (4).

\begin{quote}
\textit{George's facial expression}
\end{quote}

(4) a. 
\[\text{GEORGE, PRONOUN WIN WILL.}\]

'George, "I will win."'

'George's like, "I'll win."

b. 
\[\text{BILL, PRONOUN, PRONOUN WIN.}\]

'Bill, (from Bill's point of view), I'll win.'

'Bill's like, "I'll win."'

There are certainly many differences in the conditions for use of these various types of reference shift. Because of the possible differences in different types of reference shift, my examples use what Padden (1986) calls contrastive role shifting, which employs a change in body position. My analysis here focuses on two aspects of this construction: the structural position of the shift itself, and the change in reference for first-person pronouns and verb agreement.

**LOGOPHORICITY**

I am not going to provide much new data about reference shift in ASL. Although further research on the various types of shifting reference is needed, it is clear that such shifts exist, yet it is not clear how they should be analyzed. There are at least two puzzling aspects to reference shift, which make it look like a linguistically unusual phenomenon. First, how is the shift itself represented (e.g., what category is it a member of?); and second, how does the reference of the first-person pronoun or verb agreement change. My current goal is to propose an analysis of reference shift that brings it within the range of linguistic variation found in the world's languages. It might seem that my point in this is to make ASL (and by extension, all sign languages) just like spoken languages. This is not the case. Rather, my point is to investigate where the properties of ASL (and other signed languages) are so different from the properties of spoken languages that completely separate mechanisms are needed to account for them—and where the properties are similar enough that the same mechanisms can account for both. Although at first glance, it might seem that referential shift is an example of the former, I hope to show that it is actually an example of the latter.

In this vein, reference shift can be compared with logophoricity. In some languages, particularly West African languages, a specific pronoun is used in an embedded clause for coreference with a matrix subject or object of certain verbs, especially verbs of saying, thinking, etc. This pronoun is called a Logophoric pronoun (see Clements, 1975; Hyman & Comrie, 1981; Koopman & Sportiche, 1989; Sells, 1987). Clements (1975) characterizes the semantic context for logophoric pronouns as those instances in which a reporter may "choose to maintain his distance from the events he is reporting, and depict them through the eyes, as it were, of another person" (p. 141).

For example, the language Ewe (spoken in Ghana) uses the pronoun \textit{ye} as a logophoric pronoun, as illustrated in (5) (Clements, 1975). Compare

\[\text{\textit{ye} as a logophoric pronoun, as illustrated in (5) (Clements, 1975). Compare}\]
(5a), using a non-logophoric pronoun e, with (5b), using the logophoric pronoun. In (5a), the pronoun must not refer to the matrix subject, Kofi; whereas in (5b), the logophoric pronoun must refer to the matrix subject.

(5) (from Clements, 1975)

a. Kofi be e-dzo.
   Kofi say pro-leave
   'Kofi, said that he, left.'

b. Kofi be ye-dzo.
   Kofi say Log-leave
   'Kofi, said that he, left.'

Another West African language, Gokana (spoken in Nigeria), uses a suffix to indicate a logophoric referent (Hyman & Comrie, 1981). As in Ewe, the logophoric contexts include "verbs reflecting an individual's point of view, feelings, state of knowledge, or awareness" (Hyman & Comrie, 1981, p. 20). Some examples of the logophoric suffix used with a verb following the matrix verb 'say' are given in (6).

(6) (from Hyman and Comrie, 1981)

a. aè ko aè db
   pro said pro fell
   'He, said he, fell.'

b. aè ko aè dbè.
   pro said pro fell-Log
   'He, said he, fell.'

Languages with logophoric pronouns typically specify idiosyncratically which verbs take the logophoric, and whether it is the subject or object of the matrix verb that is the "logophoric controller" (i.e., the referent with which the logophoric pronoun is coreferential). However, the verbs typically indicate a reportive context; in other words, they indicate that the following context will convey the point of view held by someone other than the speaker. Furthermore, in many cases the context for use of a logophoric pronoun is affected by a syntactic factor. In both Ewe and Gokana, clauses introduced by specific complementizers are also targets for logophoricity. The Ewe complementizer is be, Clements analyzes it as a prepositional verb, which is historically related to a main verb for 'say'. Similarly, in Gokana, clauses introduced by the complementizer ko, which is derived from the verb for 'say', use logophoric pronouns. Examples from Ewe and Gokana are given in (7) and (8), respectively. In (7a), the clause introduced by be contains a logophoric

(7) (from Clements, 1975)

a. Kofi nya be me-kpo yè.
   Kofi know that pro-see Log
   'Kofi knew that I had seen him.'

b. Kofi se Koku wò-ñò e dzù-m
   Kofi hear Koku pro-he pro insult-Asp
   'Kofi, heard Koku, insulting him.'

c. Ama se be ye-xo nunana
   Ama hear that Log-receive gift
   'Ama, heard that she, had received a gift.'

(8) (from Hyman & Comrie, 1981)

Lèhârè div im bôbè ke wàn mèn de-è a giá
Lèhârè hit me because I ate-Log pro yam
Lèhârè, hit me because I ate his, yams.'

How is reference shift similar to logophoricity? We have seen that there is a similarity in the semantics between them, as both are used in contexts indicating another's point of view. I argue that there is a structural similarity in the contexts, as well. In view of this, I propose that the tPRONOUN in ASL can serve as a logophoric pronoun in addition to its normal use as a first-person pronoun. Under certain conditions, to be described shortly, tPRONOUN is logophoric, and refers back to the subject of a matrix clause, rather than its regular referent, which is the speaker.

THE POV PREDICATE

The conditions under which tPRONOUN is logophoric have to do with the reference shift. I propose to analyze the ASL referential shift as a point of view predicate, called POV. POV is similar to the complementizer or prepositional verb just described for Gokana and Ewe—the clause it introduces is a logophoric context. In ASL, POV takes a subject that it agrees with (i.e., it is produced in the location of the subject by moving the body to that location). POV also takes a clausal complement. Any tPRONOUNs in the complement to the POV predicate are considered logophoric pronouns. They are interpreted as coreferential with the subject of POV. In future examples, I use the gloss 'POV' for the referential shift, to more accurately represent my analysis.

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3Both Clements (1975) and Hyman and Comrie (1981) note that complementizers are frequently historically derived from the verb say in Niger-Congo (see Lord, 1976). For evidence that some complementizers have been derived from verbs in ASL, see Fischer and Lillo-Martin (1990).
To demonstrate my analysis of the structure of a sentence with POV, I propose the tree representation given in (10) corresponding to sentence (9).\(^4\)

\[
\begin{array}{c}
\text{shift) (9) MÖM, POY, PRONOUN BUSY} \\
\text{Mom (from Mom's point of view), I'm busy.}\end{array}
\]

\[
\begin{array}{c}
\text{Mom's like, I'm busy!}\end{array}
\]

In (10), POY is the predicate heading the main clause VP. It takes a clause (CP) as its complement. This clause is introduced by an operator (Op), which is bound by (and therefore coindexed with) the subject of POY (i.e., MÖM). The operator binds all logophoric pronouns in its scope, which means that any iPRONOUNS c-commanded by OP will be coindexed with it, and hence, with the subject of POY. In this way, iPRONOUNS are interpreted not as first-person pronouns, but as coreferential with the subject of POY.\(^5\) In some ways, this analysis of iPRONOUN as a logophoric pronoun draws on the analysis of logophoricity in ABE (another West African language with logophoric pronouns) presented by Koopman and Sportiche (1989).

In (10), the following abbreviations are used. CP stands for Complementizer Phrase, which is the projection of C, the complementizer. IP stands for Inflection Phrase, the projection of I, inflection. C and I are phrases intermediate to the heads, C or I, and the maximal projections, CP and IP. CP corresponds to S* in earlier versions of phrase structure, and IP corresponds to S (Sentence). Spec stands for Specifier. Op stands for Operator. The signs are written in italics to set them off. Irrelevant parts of the structure have been left off for convenience.

\(^4\) Leave open for now whether the operator is created by movement, inserted at LF, or otherwise. What is important is that it is a semantic operator. This makes the prediction confirmed later, that when logophoric, the iPRONOUN acts like a bound pronoun.

\(^5\) Because the West African logophorics also have this cross-discourse characteristic, the latter analysis might be preferred.
Wh-Questions

First, the interaction between wh-questions and POV supports this analysis. ASL allows wh-movement or wh in situ, as illustrated in (11) (see Lillo-Martin, 1990; Petronio, 1992, 1993; for an alternative view, see Aarons, Bahan, Kegl, & Neidle, 1992). Whether movement of the wh-phrase occurs at the surface or not, the nonmanual whg can mark the scope of the question.

(11) a. \[\text{HILLARY LOVE WHO?}\]
   \[\text{Who, does Hillary love t?}\]

b. \[\text{WHO HILLARY LOVE?}\]
   \[\text{Who, does Hillary love t?}\]

Questions show that POV is a matrix predicate. If a verb is intransitive, it cannot appear with a subject and a wh-argument (12a). There are enough arguments of the verb DIE to have one expressed and one questioned. However, if POV is added, a new argument slot is added, so that there can be a questioned argument and a subject (see (12b)).

(12) a. \[\text{*BARBARA, WHO DIE?}\]
   \[\text{As for Barbara, who died}\]
   \[\text{\[\text{POV}\]}\]

b. \[\text{BARBARA POV WHO DIE?}\]
   \[\text{Barbara, (from Barbara's point of view), who died}\]
   \[\text{Barbara's like, "Who died?"}\]

Because a wh-word can appear following POV (see (12a, 13a)), this is consistent with the claim that POV takes an embedded clause. Under my analysis, this embedded clause accepts wh-movement.

(13) a. \[\text{BILL POV WHO PRONOUN CHOOSE?}\]
   \[\text{Bill, (from Bill's point of view) who, should I, choose t?}\]
   \[\text{Bill's like, "Who should I choose?"}\]

The ungrammaticality of (13b) shows that the scope of a wh-phrase in the embedded CP is the embedded clause only. In these examples, wh-questions behave with respect to POV much as they do with other matrix predicates, supporting the postulation of a predicate and an embedded clause.

(\[
\begin{array}{c}
\text{POV} \\
\text{whg}
\end{array}\]

b. \[\text{*BILL POV WHO PRONOUN CHOOSE?}\]
   \[\text{Who, does Bill, (from Bill's point of view) choose t?}\]
   \[\text{Who is Bill like, "I'm choosing"?}\]

Topicalization (Left Dislocation)

The behavior of POV with respect to topicalization also supports the analysis proposed here. The examples in (14) show that topicalization can take place either within (14a) or out of (14b) a clause embedded under POV.

(\[
\begin{array}{c}
\text{POV} \\
\text{whg}
\end{array}\]

b. \[\text{MARY, JOHN POV LOVE.}\]
   \[\text{Mary, (from John's point of view), I love t.}\]
   \[\text{Mary's like, "As for Mary, I love her." }\]
   \[\text{\[POV\]}\]

b. \[\text{MARY, JOHN POV LOVE.}\]
   \[\text{Mary, John, (from John's point of view) loves t.}\]
   \[\text{As for Mary, John's like, "I love her." }\]

However, as with topicalization in structures not involving POV, there are restrictions. For example, the so-called island constraints apply in ASL, and the use of resumptive pronouns (null or overt) can save potential island violations (see Lillo-Martin, 1986, 1991). Thus, topicalization out of a wh-island requires a resumptive pronoun, as shown in (15a, b). In (15a), no null resumptive pronoun is licensed, so the resumptive pronoun must be overt; in (15b), the verb agreement licenses a null resumptive pronoun.

(\[
\begin{array}{c}
\text{POV} \\
\text{whg}
\end{array}\]

b. \[\text{MARY, JOHN KNOW WHO LOVE *(\text{POV}).}\]
   \[\text{As for Mary, John, knows who loves *(her).}\]
   \[\text{\[POV\]}\]

b. \[\text{MARY, JOHN KNOW WHO FALL-FOR *(\text{POV}).}\]
   \[\text{As for Mary, John, knows who loves (-her).}\]

\text{Strictly speaking, these structures involve left dislocation rather than topicalization. However, I use the term more familiar in ASL research here. Also, pronouns that are null in ASL are indicated using parentheses in the translation. If verb agreement is present, a hyphen is included to specify subject (he-) or object (-she) agreement.}
Topics out of POV clauses have the same distribution. When topicalization out of a clause embedded under POV violates the wh-island constraint, an overt (16a) or null (16b) resumptive pronoun is required, just as in topicalization in sentences without POV.

(16) a. &MARY, &JOHN &POV &PRONOUN KNOW
  WHO LOVE *(gPRONOUN).
  'As for Mary, John, (from John's point of view) I, know who loves *(her).'
  'As for Mary, John's like, "I know who loves *(her)."'

b. &MARY, &JOHN &POV &PRONOUN KNOW
  WHO FALL-FOR *gPRONOUN).
  'As for Mary, John, (from John's point of view) I, know who loves (-her).'
  'As for Mary, John's like, "I know who loves (-her)."

Thus, the behavior of topicalization structures also supports the proposed analysis.

**Reflexives**

Further evidence for the structures proposed here comes from constructions with reflexive pronouns. Although this has not been reported in the literature (to my knowledge), ASL seems to allow a reflexive pronoun, as well as a non-reflexive pronoun, in embedded subject position to be coreferential with an NP in the matrix clause (see (17a,b)), but the reflexive can only go up one clause (see (17c)).

(17) a. &LOWELL FEEL *SELF/gPRONOUN INTELLIGENT.
  'Lowell, thinks he, is intelligent.'

b. &LOWELL TELL *WORKER *SELF/gPRONOUN IMPORTANT.
  'Lowell, told the worker, that he, is important.'

c. &LOWELL THINK *WORKER FEEL *SELF/SELF RIGHT.
  'Lowell, thinks the worker, feels *he/he, is right.'

A reflexive in embedded object position may not be coreferential with an NP in the matrix clause, as in (18).

(18) &LOWELL WANT *WORKER RESPECT *SELF/gPRONOUN.
  'Lowell, wants the worker to respect *himself/him.'

Without offering a theoretical explanation for these facts, I would like to use them to test the proposed structure of POV. Reflexive pronouns following POV support the analysis that it introduces an embedded clause. A reflexive may occur in the embedded subject position following POV, coreferential with the matrix subject ((19a)), or in a further embedded clause, coreferential with the next highest subject or object ((19b)), but it cannot be coreferential with the matrix subject if it is further embedded ((19c)).

(19) a. &GOVERNOR &POV &SELF PAY TAX HIGH.
  'The Governor, (from the Governor's point of view), I, pay high taxes.'
  'The Governor's like, "I pay high taxes."'

b. &GOVERNOR &POV &SENATE &PERSUADE &WORKER &POV
  \( \text{b of SELF PAY TAX HIGH.} 
  'The Governor, (from the Governor's point of view), the Senate, persuaded the worker, that it/he, pays high taxes.'
  'The Governor's like, "The Senate persuaded the worker that it/he pays high taxes."

c. &GOVERNOR &POV &WORKER FEEL \( \text{b of SELF PAY TAX HIGH.} 
  'The Governor, (from the Governor's point of view), the worker, thinks he/"I, pays high taxes.'
  'The Governor's like, "The worker thinks he/"I pays high taxes."

These facts are just what is expected, given the data in (17–18), if POV constitutes a predicate and takes an embedded clause. If the NP before POV was not in a higher clause, it would be difficult to find a principled account of these facts.

**VP Ellipsis**

The final piece of evidence I present supports the analysis of &PRONOUN as a bound pronoun. Although this result might be achieved by some mechanism other than an operator, the following data support the proposed analysis; any alternative would also need to show how the &PRONOUN is bound.

First, as has become common in the literature (see Reinhart, 1983), I assume that the interpretation of the second clause in VP ellipsis involves copying the interpretation of the first clause. This is illustrated in (20).

(20) a. &ROSS &GONE; \( \text{b of JERRY SAME.} 
  'Ross is gone; Jerry is too.'
b. Interpretation:
ROSS GONE, JERRY GONE.
'Ross is gone; Jerry is gone.'

Under VP ellipsis, if a pronoun is used, the second clause will be interpreted according to the interpretation of the pronoun in the first clause. Pronouns are usually allowed to have bound reference or coreference (as well as free reference). When VP ellipsis is interpreted, the second clause will be interpreted as copying the bound reference or the coreference of the first clause, resulting in both sloppy ((21a)) and non-sloppy ((21b)) reference.

(21) [JOHN THINK [PRONOUN HAVE MUMPS, [MARY SAME.
'John thinks he, has the mumps, and Mary, does too.'

a. If the [PRONOUN is interpreted as bound in the first clause, then it will be interpreted as bound in the second clause. Under this interpretation, Mary thinks Mary has the mumps (sloppy interpretation).

b. If the [PRONOUN is interpreted as coreferent in the first clause, then it will be interpreted as coreferent in the second clause. Under this interpretation, Mary thinks John has the mumps (non-sloppy interpretation).

This can be used to see if the logophoric [PRONOUN acts like a bound pronoun, as it should under this analysis. If a logophoric [PRONOUN in the first clause of VP ellipsis is a bound pronoun, then only the sloppy interpretation should be available in (22).]

(22) [JOHN [POV [PRONOUN THINK [PRONOUN HAVE MUMPS, [MARY SAME
'John, (from John's point of view), I, think I, have the mumps, and Mary (from speaker's point of view) does too.'
'John's like, 'I think I have the mumps'; and Mary is too.'

This only means Mary thinks Mary has the mumps. This is the sloppy interpretation expected under the bound pronoun analysis.

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8Note that the form of SAME used here involves a Y hand moving slightly from right to left repeatedly in the neutral space in front of the signer's chest. This form does not move between the locations for referents (e.g., between Mary's and John's locations). The range of interpretations for the latter form differ from the form discussed here, and arguably do not involve the same mechanism of VP ellipsis.

CONCLUSION

Although each piece of evidence presented here might be compatible with other analyses of the referential shift phenomenon, together, these data support the proposed analysis. In particular, they support the proposal that [POV is a predicate, that it takes an embedded clause as a complement, and that [PRONOUNs in this embedded clause, which are coreferential with the subject of [POV, act as bound pronouns. Because these mechanisms are common across languages, the proposed analysis also supports the hypothesis that ASL behaves within the range of observed linguistic variation, at least in this shifting reference construction, which at first glance appears to be quite unusual in comparison with structures found in spoken languages.

The discussion here has not illuminated concerns about exactly when this construction can be used, and how the various types of reference shifts might differ. However, at least with respect to the change in reference for [PRONOUN, and with respect to the proposed [POV predicate itself, aspects of this analysis should be compatible with the various manifestations of referential shift. I leave these issues for future research.

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REFERENCES


