

Logophoric *ziji* in DRT

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In this paper I critically evaluate one recent approaches to the interpretation of logophoric *ziji*, i.e., that of Anand (2006). After recognizing the problems of his analysis, I provide an account of *ziji* in the framework of Discourse Representation Theory (DRT), following Sells (1987) and Sterling (1993).

1 Previous analyses

1.1 Huang and Liu on LDR *ziji*

Long-distance *ziji* is of interest to linguists for its peculiar behavior: it does not always obey Binding Condition A as stated in the Binding Theory. Some authors, for example, Huang and Liu (2001) argue that there are two uses of the bare reflexive *ziji*: one as a syntactic anaphor subject to Binding Condition A and the other as a pragmatic logophor. It is the logophoric use of *ziji* that licenses the long-distance binding. Drawing on Sells (1987) notion of logophoricity, Huang and Liu further claim that the availability of the relevant de se scenario is necessary for the logophoric reading. However, as I argue in Chen (2009), Huang and Liu's account is problematic. First, their analysis of the 'sentence-free' *ziji* is too vague. The default binder of *ziji* is not always the current speaker. Second, the pragmatic perspectual strategy they offer as an explanation of the Blocking Effect is inconclusive. Their direct-discourse paraphrases changes the truth-condition of the original sentence, and when the sentence is properly rewritten, there is no conflict of perspective. Lastly, *ziji* can be long-distance bound even when the binder lacks the relevant de se belief.¹

1.2 Anand's two Chinese dialects

Anand claims that there are two Chinese dialects with respect to long-distance *ziji*, i.e., IND-Mandarin and LOG-Mandarin. In IND-Mandarin, the long distance reading of *ziji* is a result of context-overwriting; in LOG-Mandarin, *ziji* is a logophor and is subject to syntactic constraint. IND-Mandarin is more permissive with long-distance bound *ziji*,

¹ See Chen (2009) for a fuller account.

but in LOG- Mandarin, long-distance bound *ziji* is subject to what he calls the De Re blocking effect. Anand's theory rests crucially on a series of examples that allegedly distinguish the two dialects, nevertheless, I shall show that judgments of grammaticality from native speakers contradicts Anand's prediction.

In Anand's proposal, *ziji* is a logophor obligatorily read *de se* in LOG- Mandarin. On the other hand, in IND-Mandarin long-distance *ziji* is a shiftable indexical much like Amharic I and is a result of semantic context-overwriting. Thus Anand's proposal is attractive in that not only does he offer a more fine-grained distinction between two *ziji*, he also provides a way that *ziji* is related to interesting pronouns in other languages. On the one hand, *ziji* in LOG-Mandarin is a real logophoric pronoun, and it is compared and contrasted with other logophors in African languages. On the other hand, *ziji* in IND-Mandarin behaves in the same vein as the indexical shifts in Amharic and Zazaki, as a result of the working of monstrous context- changing operators.

The contrast between LOG-Mandarin and IND-Mandarin with respect to *ziji* is summarized as follows²:

(1) **IND-Mandarin**

ALL[att-verb(OP_{auth})] optionally shifts 1st person indexicals (all attitude verbs)

LOG-Mandarin

ALL[att-verb(OP-LOG_u)] optionally binds all [log] items (all attitude verbs)

In IND-Mandarin:

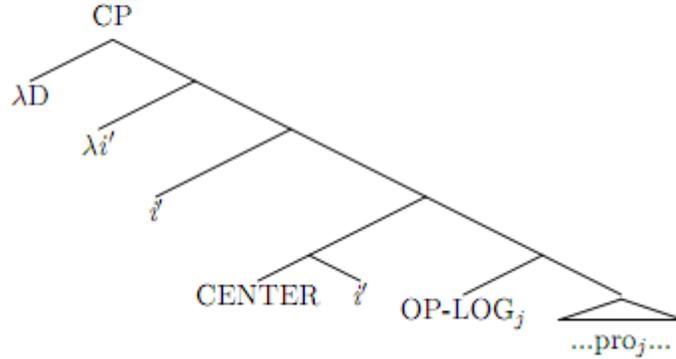
- (2) a. All attitude predicates allow OP_{auth} headed complements
 b. $[[ziji]]^{c,i} = \text{AUTH}(c) = [[wo]]^{c,i}$
 c. Binding Optionality: Mandarin attitude verbs may select for an OP_{auth} complement.

² The typology I have here is different from Anand (2006); In an email correspondence, Anand confirmed that the typology was reversed by mistake in Anand (2006). The version I present here is the correct one.

(3) a. $[[OP-LOG_j \alpha]] = \lambda x. [\alpha]^{g[x \rightarrow j]}$

b. $[[CENTER]^g] = \lambda i. AUTH(i)$

c.



Note that in Anand's proposal, though the binding of *ziji* in LOG- Mandarin is syntactic, the covert referentially denoting P(erspectival)-Center is not entirely syntactically determined. P-center is 'a point-of-view head high in the left periphery that referentially denotes the psychological perspective from which the sentence is situated (in analogy to the deictic center for a sentence).'³ The value of the P-Center is at least partially discourse dependent. In other words, *ziji* in LOG-Mandarin may refer to the speaker, the addressee or even a salient third-person.⁴

To establish the validity of his thesis, Anand offers a series of examples that allegedly distinguish the two dialects. Anand's examples rest heavily on the grammaticality judgment of native speakers and as much as I appreciate the depth and elegance of Anand's theory, I am afraid that the empirical ground may not be as solid as one would hope. My survey shows quite a different result from Anand's.⁵ In what follows, I shall explain Anand's claims on the said differences between the two Chinese dialects. Furthermore, I will test *ziji* against the principle Shift Together that Anand postulates for shiftable indexicals.

³ Anand and Hsieh(2005)

⁴ P(erspectival)-Center discourse rules: (i) Discourse Rule 1: In unmarked contexts, the P-Center is the speaker. (ii) Discourse Rule 2: When a speech-act-participant (SAP) is the matrix subject, the P-Center is that SAP. (iii) The P-Center can be a non SAP in marked contexts, where the 3rd person is established by discourse to be the perspective-holder (e.g., narrative).

⁵ Anand's informants are Taiwanese Mandarin speakers in Boston, MA. My results are from 45 native speakers of Mandarin Chinese in Taiwan.

1.2.1 De Re Blocking Effect

The most significant difference between IND-Mandarin and LOG-Mandarin is the De Re Blocking Effect:

- (4) De Re Blocking Effect
- All [log] (pro*/de se anaphor) elements must be *de re* free.
 - No obligatory de se anaphor can be c-commanded by *de re* counterpart.⁶

In (5), it is stipulated that the third-person *ta* is John, making it a non-subject (here *ta* is the object) c-commander of *ziji* that is *de re* equivalent to the potential long-distance binder. Anand claims that native speakers are split between the grammaticality judgment of whether *ziji* can be long-distance bound by John in (5). Those who grant this possibility speak IND-Mandarin; those who don't speak LOG-Mandarin.

- (5) John_i renwei Bill_j gei tai ziji_i-de shu.
 John thinks Bill give he self-POSS book.
 'John_i thinks that Bill_j gave him_i his_{i/j} book.'
 'John_i thinks that Bill_j gave his_i mother his_{i/j} book.'
- LOG-Mandarin**
IND-Mandarin

By contrast, in (6), the thematic goal *ta* is replaced with *ta-de mama* (his mother) while *ta* still refers to John. This time the *de re* equivalent is buried too deep in the structure and no longer c-commands *ziji*. As a result, no blocking takes place and for both IND-Mandarin and Log-Mandarin speakers *ziji* can be long-distance bound.

- (6) John_i renwei Bill_j gei tai-de mama ziji_i-de shu
 John thinks Bill give he-POSS mother self-POSS book
 'John_i thinks that Bill_j gave his_i mother his_{i/j} book.'
- ALL**

Why do LOG-Mandarin speakers exhibit the De Re Blocking Effect? Recall that for Anand, long-distance binding of *ziji* in LOG-Mandarin is syntactic: 'P-center binding' is in fact a case of local binding and as such, if there is a closer long-distance binder than the P-center, the closer binder will be preferred. So 'for LOG-Mandarin, a *ziji* that could be long-distance bound by a 1st person antecedent will always be bound by that antecedent. In contrast, IND-Mandarin licenses 1st personal *ziji* in virtue of it being an indexical, and hence a long-distance 1st person subject need not force the insertion of an Op_{auth} to 'bind' *ziji* (Anand 2006).

⁶ In Anand (2006), De Re Blocking Effect is shown to hold in Yoruba and is considered characteristic to languages with logophoric pronouns.

To be honest, I am not exactly sure about the logic at work here. Furthermore, my informants do not confirm Anand’s result.⁷

- (7) a. Zhangsan_irenwei Lisi_j gei-le ta_i ziji_{*i/j} de su.
 Zhangsan think Lisi give-LE he self DE book.
 ‘Zhangsan_i thinks that Lisi_j gave him_i his_{*i/j} book.’ **?? LOG-Mandarin**
 ‘Zhangsan_i thinks that Lisi_j gave him_i his_{i/j} book.’ **??IND-Mandarin**
- b. Zhangsan_irenwei Lisi_j gei-le ta_i-de mama ziji_{i/j} de su.
 Zhangsan think Lisi give-LE his mother self DE book.
 ‘Zhangsan_i thinks that Lisi_j gave his_i mother his_{i/j} book.’ **??ALL**

My informants were asked whether an interpretation is acceptable, marginally acceptable or not acceptable. The result is shown in (1.2.1). 16 speakers think *ziji* can be bound by Zhangsan in (7a), 14 think this is only marginally acceptable and 15 consider this ungrammatical. On the other hand, 24 speakers accept *ziji* as anaphoric to Lisi, 12 think this reading is marginally acceptable while 9 speakers are against this interpretation. Thus, I think it is safe to say that people do have different opinions on whether *ziji* can refer back to Zhangsan, but they surely have a preference of interpreting it to mean the closer binder Lisi than the more distant Zhangsan.

(7a)	acceptable	marginally	unacceptable
his _i =Zhangsan’s	16	14	15
his _j =Lisi’s	24	12	9

Furthermore, Anand’s claim is that there is a ‘systematic split’ of judgments between IND-Mandarin and LOG-Mandarin speakers, but my informants do not show any orderly division. True, their judgments do differ with regard to the reference of *ziji* in sentences with a *de re* counterpart, but their opinions are often not consistent. I find it hard to label any one of my informant as a speaker of one dialect but not the other. Besides, the informants repeated tell me that they do not like (7b) very much. Contrary to what Anand’s result, not all of the speakers reckon the sentence felicitous.

Again, people show a preference to interpret *ziji* as anaphoric to Lisi: 20 think it acceptable, 17 as marginally acceptable and 8 as unacceptable. As to long-distance

⁷ I present to my informants with both Anand’s original examples and my adjusted versions. My sentences have the same relevant structure but a perfective mark -le is added to the verb in the embedded clause so that the whole sentence reads more natural to native speakers.

binding, 14 accept such a reading, 12 consider it marginally acceptable and 19 regard it infelicitous. The interesting puzzle here is that contrary to Anand's prediction, the supposedly non-De Re Blocking-inducing (7b) becomes less desirable to more people compared to (7a). Not only do fewer people interpret *ziji* as anaphoric to Zhangsan, more people state that even the less problematic reading (*ziji*=Lisi) becomes hard to appreciate.

	(7b)	acceptable	marginally	unacceptable
(9)	his _i =Zhangsan's	14	12	19
	his _j =Lisi's	20	17	8

1.2.2 Shiftable *ziji*

If the above result is of any indication, the distinction between IND-Mandarin and LOG-Mandarin may not be as clear as one might hope. I now turn to the claim that *ziji* in IND-Mandarin is a shiftable indexical. The alleged fact that *ziji* in IND-Mandarin obeys SHIFT TOGETHER is considered a proof that *ziji* is like Amharic-I. Since I have no access to qualified informants, I do not challenge Anand's and Anand and Nevins (2004) on how the constraint works in African languages. My aim is only to see if this same rule governs the behaviors of *ziji*.

According to Anand and Nevins, all indexicals (first person, second- person temporal locative) can optionally shift under Zazaki-says. However, the indexical shift is constrained. For instance, in (10) the two occurrences of indexical I does not make this sentence four-way ambiguous.

(10) (in Zazaki) Bill said that I argued with my mother.

Assuming John to be the current speaker, (11a) is true when Bill said, '*John argued with my mother.*' (11b) is like its English counterpart, true when Bill said, '*John argued with his mother.*' The shifting reading of Zazaki-I is (11c), true when Bill said, '*I argued with my mother.*' On the other hand, (11d) is true when Bill said, '*I argued with John's mother.*' (11a) and (11d) are the mixed readings.

- (11) a. Bill_i said that I_c argued with my_i mother.
 b. Bill_i said that I_c argued with my_c mother.
 c. Bill_i said that I_i argued with my_i mother.
 d. Bill_i said that I_i argued with my_c mother.

Anand and Nevins report that the mixed readings are impossible in Zazaki. (10) can never be true in the context where Bill said, '*I argued with John's mother,*' nor when he said, '*John argued with my mother.*' The sentence is true only when the two occurrences of I shift together, or when they do not shift at all. This 'SHIFT TOGETHER'

constraint is said to hold for several other languages that have shifting indexicals. The claim is that this phenomenon is best explained when we assume that Zazaki contains some type of monstrous operator.

If *ziji* in IND-Mandarin is a shiftable indexical just like Zazaki-I, it should obey SHIFT TOGETHER. Is this the case?

Consider (12), where *ziji* occurs twice in the embedded clause. Literally, the sentence reads, ‘*Bill says that John gave SELF SELF’s exam.*’ If Anand is right, the mixed readings (12b) and (12c) are impossible. (12) can never be true in a context such as S_2 and S_3 .

- (12) Bill_i shou John_j gei-le ziji_{i/j} ziji_{i/j}-de kaochuan
 Bill say John give SELF SELF-POSS exam
 ‘Bill_i said that John_j...’
 a. gave him_i his_i exam.’
 b. gave him_i his_j exam.’*
 c. gave him_j his_i exam.’*
 d. gave him_j his_j exam.’

- (13) S_1 : The math teacher handed over to John the exam books of the whole class and asked him to distribute the exam books among his classmates. Each student should get one and the students would grade each other’s exams.
 S_2 : Same as S_1 and Bill said, ‘*John gave me my exam.*’
 S_3 : Same as S_1 and Bill said, ‘*John gave me his exam.*’
 S_4 : Same as S_1 and Bill said, ‘*John gave himself my exam.*’
 S_5 : Same as S_1 and Bill said, ‘*John gave himself his own exam.*’

For the informants that I consulted, however, Anand’s prediction is incorrect. (12) appears to be four-way ambiguous, as each reading, even the mixed ones, are deemed acceptable for at least one-third of the informants. Nevertheless, there does exist a preference for the non-mixed readings (12a), (12d). Besides, there is a stronger preference for the reading where *ziji* is interpreted as anaphoric to John: more than 70% of the informants think (12d) is the most appropriate interpretation.

The result is suggestive. There are three possible explanations to my findings. First, perhaps SHIFT TOGETHER does not hold for all shiftable indexicals. Second, perhaps *ziji* is never a shifting indexical. Third, perhaps *ziji* indeed is a shifty indexical, but the semantic overwriting is not the whole story. When concrete contextual information is given, even the impossible mixed readings become available.

All in all, though I may not have presented a knock-down argument against Anand’s analysis, there is enough evidence that the distinction between IND-Mandarin and LOG-Mandarin is not so definite. The judgment regarding De Re Blocking is at best blurry, and so is the alleged constraint SHIFT TOGETHER on shiftable *ziji*. I do not

mean to depreciate the importance of Anand's proposal, but there are things that call for further explanation.⁸

1.3 Logophoricity and *ziji* in DRT

1.3.1 Sells on logophoricity

Despite all these talks on logophoricity and its connection to attitude de se, it should be noted that Sells' analysis of logophoricity actually came long before the association. I think it is worthwhile to examine Sells' theory given that he explicitly states that logophors need not be de se. Sells maintains that a logophor is linked to its long-distance antecedent if the antecedent plays the role of SOURCE, SELF or PIVOT. SOURCE is the internal agent of the communication, and thus the subject of verbs of communication such as 'say' is predicated as SOURCE; SELF is the one whose mental state the embedded proposition describes, so the subject of psychological verbs such as 'think' and 'feel' plays the role SELF; PIVOT is assigned to the one whose physical point of view that the content of the proposition is evaluated against.

Sells presents his formal analysis of logophoricity in Discourse Representation Theory. His examples are mostly in Japanese, and I want to show that the Chinese data can be analyzed adopting the same strategies.

σ represents SOURCE;

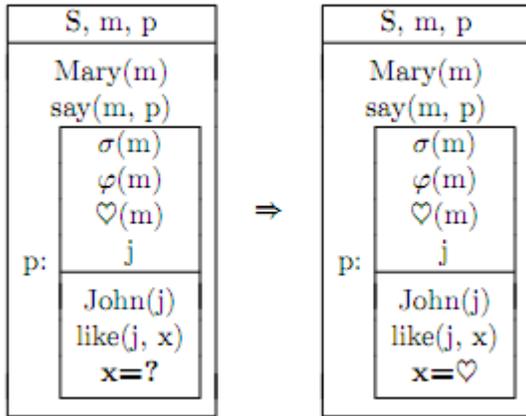
ϕ represents SELF;

♥ represents PIVOT;

S represents the external speaker

⁸ For instance, in the case of multiple embedding, distance seems crucial. The further away a noun phrase is, the less likely it is the logophoric antecedent of *ziji*. For LOG-Mandarin, this may be construed as a preference for the closest, local binder for *ziji*. But what can be the basis for this preference in IND-Mandarin where *ziji* is simply a shifting indexical? Perhaps, a syntactic analysis is not the whole story for the interpretation of *ziji*. When a concrete context is supplied, many of the syntactically prohibited readings become possible, indicating that contextual information plays a role that should not be overlooked. For example, when my informants are given a sentence with the structure that supposedly would exhibit the Blocking Effect, most of them reckon the logophoric reading as infelicitous, just as expected. However, if they are given a similar sentence with the same structure plus certain scenarios against which they can judge the sentence, a significant increase is seen in the number of people who judge the logophoric reading felicitous. Perhaps there is some coercion story that can be told regarding the behavior of *ziji*.

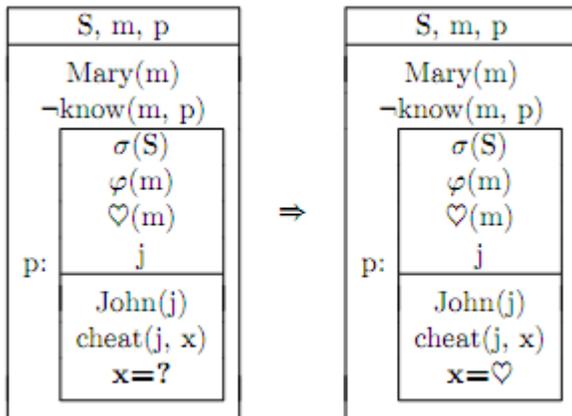
- (14) Mary_i shuo John_j xi-huan ziji
 Mary say John like self
 Mary_i says that John_j likes her_i.



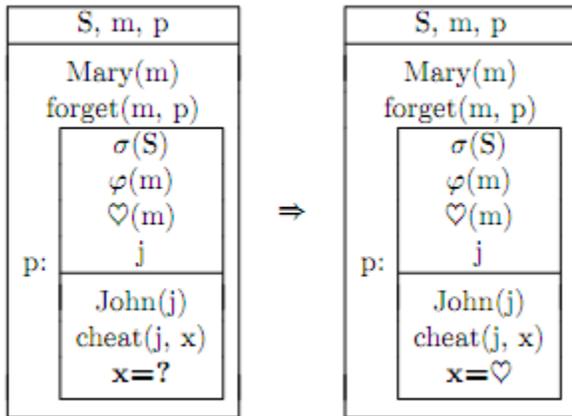
In (14), the verb *shuo* (say) is ‘logophoric’ and as such the subject plays all three roles. For convenience, Sells simply equates *x* with PIVOT, hence *m*, and we receive the desired reading.

Verbs like *juede* (think) and *zhidao* (know) *wang* (forget) are all ‘psychological verbs.’ Though SOURCE is played by the external speaker in these cases, and the agent of these verbs are assigned SELF and PIVOT, which still grants us the logophoric reading of *ziji*.

- (15) Mary bu zhidao John pen-le ziji
 Mary not know John cheat-PERF self
 Mary_i doesn’t know that John_j cheated her_i.



- (16) Mary wang-le John pen-guo ziji
 Mary forget-PERF John cheat-PERF self
 Mary_i forgot that John_j cheated her_i.



1.3.2 Stirling’s logophoric DRT

Stirling (1993) argues that three semantic roles are unnecessary proliferation and proposes that the job can be done by postulating simply one role, i.e. the epistemic validator, or validator. A validator is the one that validates the discourse; to be more precise, it is the individual that the current/external speaker linguistically assigns responsibility for the discourse in question. The responsibility that falls under the validator includes the truth of the embedded proposition, the actuality of the eventuality in question and the accuracy of the linguistic expressions used.⁹

The notion of epistemic validator is formally encoded as a discourse marker *v*. Stirling adopts the version of DRT that encodes ontological types as sorted discourse markers, where a sort is a bundle of features associated with a particular discourse marker and specified discourse marker letters are used for some standard sorts. Her discourse marker *v* is regarded as a special kind on a par with markers for the current speaker ‘I’, the current addressee ‘you’ and for the time of utterance ‘now.’ More importantly, the insertion of *v* into the universe of a DRS is not only adding an entity available for the resolution of anaphoric noun phrase but also adding more formal conditions in the DRS.¹⁰

By default, the current speakers take the role of validator, but they may also dis-assign themselves as validator and re-assign the role to someone else. These three possibilities are formally represented by an anaphoric condition linking *v* with some other

⁹ Stirling (1993), Chapter 6.

¹⁰ Stirling (1993), p.284.

discourse entities in the universe of an DRS as follows, where i represents the current speaker and x is some other accessible marker in the universe.

- (17) $v = i$
 $v \neq i$
 $v = x$

The decisive move in Stirling’s approach is to associate the anaphoric conditions linking v and the assignment of the role of validator with lexical rules. The idea is that grammatical constructions may contain items with lexically specified properties which render them the role of epistemic validator. If there is no such items, then the default is to assign the role to the current speaker. There are predicates that can trigger a logophoric context, and they generally have the properties listed in (18):

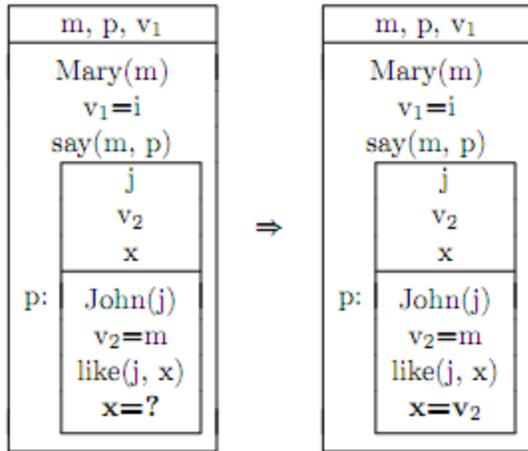
- (18) a. they are sub-categorised for a clausal complement;
 b. the validator for the clausal complement is constrained to be the referent of some subcategorised-for nominal argument of the matrix clause, usually the subject NP.¹¹

As a result, the epistemic validator of the content of the embedded clause of a verb of communication, thought, psychological state or perception will be the subject (usually) of that verb. The one who ‘uttered the speech, had the thought, experienced the psychological state, or experienced the sensory perception is the best (perhaps the only) witness to the truth, actuality or accuracy of description of the content of what was said, thought felt or perceive.’

Therefore, (14), repeated here as (19) receives the following analysis:

- (19) $Mary_i$ shuo $John_j$ xi-huan $ziji$
 Mary say John like self
 $Mary_i$ says that $John_j$ likes her $_i$.

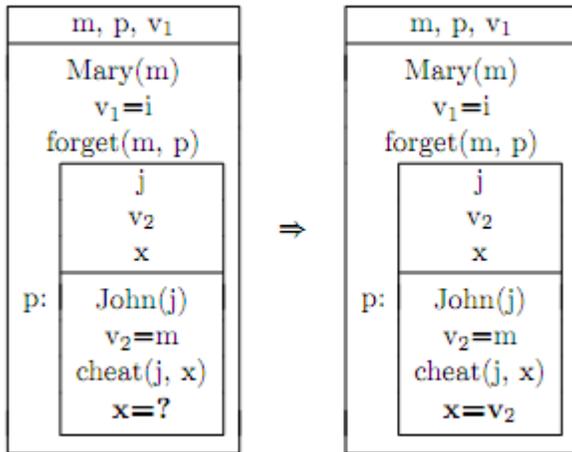
¹¹ Ibid, p285



The validator of the whole sentence is the external speaker, and the validator of the embedded proposition is the subject of the communication verb *shuo*, that is, the internal speaker Mary.

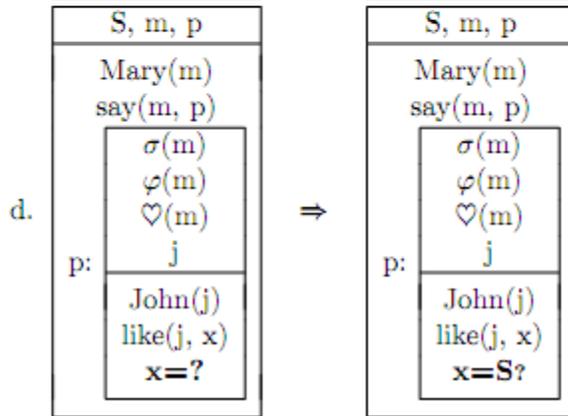
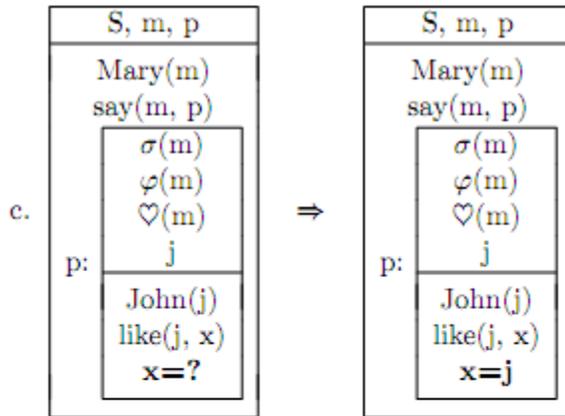
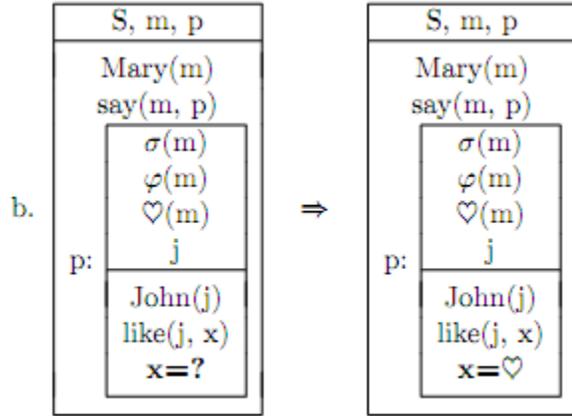
(16), repeated as (20), is analyzed as:

- (20) Mary wang-le John pen-guo ziji
 Mary forget-PERF John cheat-PERF self
 Mary_i forgot that John_j cheated her_i.



One merit of both Sells and Stirling's DRT analyses is the prediction of the ambiguous behavior of *ziji*. As discussed earlier, *ziji* may be bound either by its local antecedent or by the long-distance logophoric antecedent. This comes natural in the DRS presented. For example, (14), repeated here as (21):

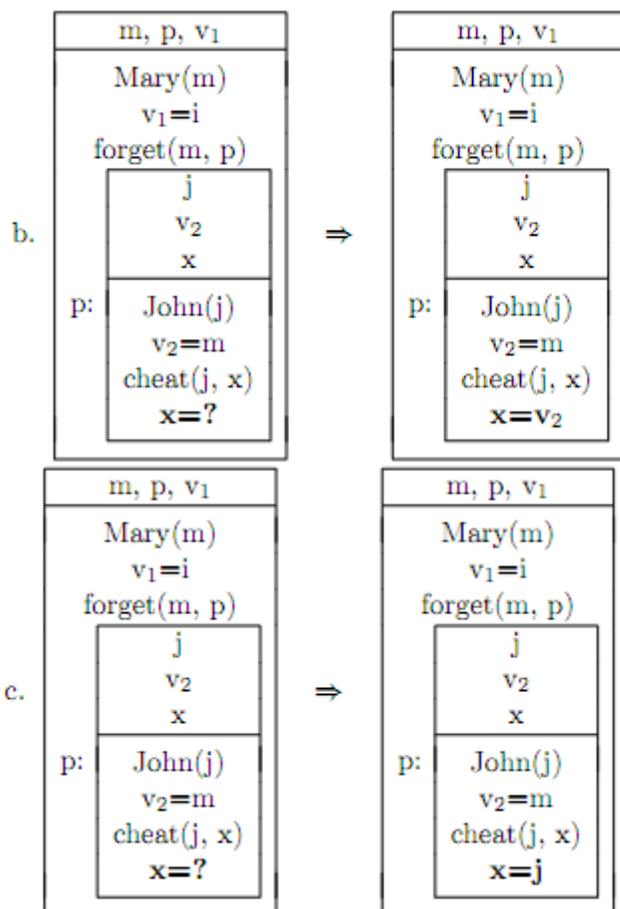
- (21) Mary_i shuo John_j xi-huan ziji
 Mary say John like self
 Mary_i says that John_j likes her_i.

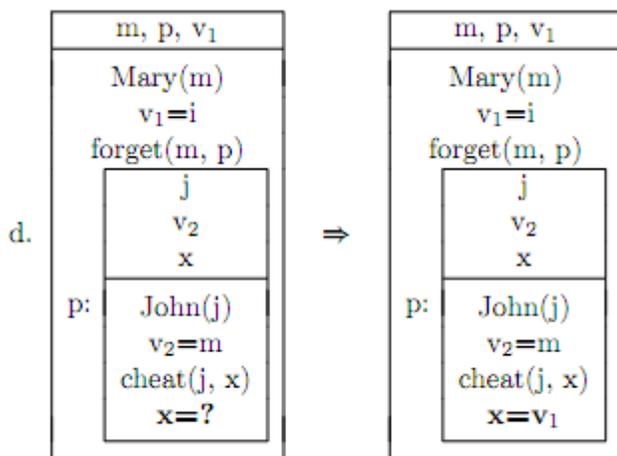


In the embedded DRS in (21b), x is resolved to \heartsuit , which is the role played by the marker m representing Mary. This gives rise to the logophoric reading. On the other hand, as shown in (21c), we may choose to resolve x to j , in which case the content of Mary's speech is 'John likes himself.' Furthermore, the external speaker S is also accessible, and if x is set to be anaphoric to the external speaker, the sentence is interpreted as the speaker asserting something like, 'Mary says that John likes me.' Unfortunately, this reading is reckoned by most native speakers as ungrammatical.

Similar anaphoric resolutions can be done in Stirling's version of DRT. Theoretically, x in (22b) can be equated to any accessible discourse marks, including v_1 and j . Yet due to the lexical meaning of the verb *pen* (cheat), the interpretations resulting from these alternatives are infelicitous. Not all possible anaphoric equations are probable; the lexicon and world knowledge place constraints on some of them.

- (22) Mary wang-le John pen-guo ziji
 Mary forget-PERF John cheat-PERF self
 Mary_i forgot that John_j cheated her_i.





Perhaps the importance of lexicon can be seen from another angle. The problem for Sells is that we are never told what to make of the discourse roles. What is the ontological and theoretic status of SOURCE, SELF and PIVOT? All we are told is that there is no unified notion of logophoricity per se and logophoricity phenomenon is a result of the interaction of these primitive notions. Given that the roles can be predicated of the internal agent or of the external speaker, it might look like they are the special conditions that the discourse markers must satisfy. However, his resolution of anaphora in DRT is done by setting a discourse marker as equal to some accessible discourse markers already in the discourse structure, yet in Sells' own formulation of the DRSs, the value of the discourse marker in the clausal complement is resolved to be the role-predicate. That is, 'the pronoun effectively takes a role-predicate as its antecedent, not a marker directly due to some NP.'¹² This strikes me as odd. Moreover, if the roles are conditions in the DRS, how are they similar or different from other predication conditions?

In addition, what exactly is the basis of the assignment of roles? It seems that there should be something in the lexical property of the verb indicating what roles the related agent plays. This is the case for the communication verbs like 'say' or psychological verbs 'think' and 'feel.' The subject of 'logphoric verbs' is the internal agent and she is the source of the report, the person whose mental state the report is made as well as the one whose point of view the report is made; the subject of psychological verbs, though no longer the person who is making the report, is the one whose thought the report is about. Still, it is not obvious what verbs would trigger a discourse environment in which PVIOT (and only PIVOT) is assigned to the internal speaker.

I believe these are legitimate motivations for Stirling's more economical DRT analysis. She not only reduces three roles into one, but actually explains how the role

¹² Sells (1987), p459.

of epistemic validator is semantically interpreted and what standing it takes in the DRS. Unlike Sells' equivocal SOURCE, SELF and PIVOT, the role of epistemic validator is explicated defined as a special sorted discourse markers. Furthermore, as the licensing of logophoricity is due to the assignment of the role of validator, the related lexical rules becomes all the more consequential. Stirling is well aware of this and places good attention on the the verbs that may trigger logophoric contexts. Like Sells's hierarchy of roles, Stirling proposes that there is a hierarchy of logo-centric verb:

(23) communication > thought > psychological state > perception

In any logophoric language, if verbs of one kind trigger a logophoric environment, so will the kind of verbs to the left of it, though it does not follow that a language that allows logophoric contexts resulting from verbs of communication will also have logophoric contexts triggered by the other three kinds.¹³

Summing up, Sells and Stirling's DRT analyses do provide an adequate way to explain the logophoric phenomenon without references to *de se* belief. Besides, the DRT analyses nicely capture the tricky ambiguity of long-distance *ziji*. So in this sense, DRT is our best choice for *ziji*. There are a few loose ends that need to be tied up though. For one thing, tense and aspect have been ignored in the current analysis, but this problem can be overcome by supplementing more temporal discourse markers and conditions in the discourse representations. For another, the Blocking Effect is left unexplained. I do not have a good answer yet, but given the prominence of both lexicon and the semantic-epistemic role, I suspect that the Blocking Effect may be a result of conflicts in person-feature (depending on what exactly is the person feature of *ziji*)¹⁴ and/or of conflicts of perspective (between different roles and different validators).

On the other hand, it is not the case that *ziji* cannot be analyzed in terms of attitude *de se*; it is just that in the framework provided by Sells and Stirling, the data is explained without it. Given the flexibility of DRT, adding to the representation some specific constructions for attitude *de se* is certainly doable and probably desirable. For example, Maier (2009) proposes a version of DRT where the *de dicto* and *de re* distinction is modeled as a difference in scope and *de se* is treated as a special case of relational *de re* attitudes.¹⁵

¹³ Stirling (1993), p260.

¹⁴ This can be a rather complicated story due to the fact that *ziji* can be added to any person: 1st, 2nd and 3rd and even their plural forms.

¹⁵ Maier (2009) The acquaintance relation is, in the case of co-referential pronoun in English, the equation; For shiftable indexical, e.g., Amharic-I, *de se* is resolved as *de dicto* with local binding to the center. PRO and LOG are specified in the level of syntax.

All I claim here is simply that *ziji* may be analyzed without stressing its possible *de se* interpretation. If logophoric *ziji* is any reflection of logophors in general, then perhaps logophors do not necessarily require a *de se* explication.

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