Long-Distance Logophors and the Camera Perspective

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1 Proposal

Some propositional attitude verbs can introduce a novel perspective with a perspective holder, binding logophoric pronominals (Charnavel 2019a and others). We argue that verbs of perception and imagining allow a camera perspective that has an inanimate (non-sentient) perspective holder incapable of binding logophoric pronominals, but can bind the perspective argument of evidentials. Our argument is based on the novel observation that embedding predicates of the *see-dream*-class, but not the *say*-class, allow the logophoric subject pronoun ***zibun*** to co-occur with the anti-logophoric evidential *-ga-[RU]* in Japanese:

(1) *Watasi-wa [**zibun**-ga ringo-o tabe-ta-**ga**-ttei-ru] yume-o mi-ta.*
I-TOP self-NOM apple-ACC eat-want-EVID-PROG-NON.PST dream-ACC see-PST
'I had a dream that I was appearing to want to eat an apple.'

(2) **Watasi-wa [**zibun**-ga ringo-o tabe-ta-**ga**-ttei-ru] to i-tta.*
I-TOP self-NOM apple-ACC eat-want-EVID-PROG-NON.PST that say-PST
*'I had said that I was appearing to want to eat an apple.'

2 Evidentials

Japanese emotion/sensation predicates such as *kanasi-[I])* ('be sad'), *samu-[I]* ('cold'), *hosi-[I])* ('want') and *-ta-[I]* ('want') must be marked for evidentiality with either $-\emptyset$ (DIR) for direct or *-ga[RU]* (NDIR) for indirect evidence (Tenny 2006). Evidentiality marking is restricted to emotion/sensation predicates. If the subject is the perspective holder, DIR is required as shown in (3a). If the subject is a non-perspective holder, on the other hand, the use of emotion/sensation predicates requires the indirect marker as in (3b).

(3) a. *Watashi-wa ringo-o {hoshi/tabe-ta}-∅-i / {*hoshi/*tabe-ta}-ga-ru.*
I-TOP apple-ACC want/eat-want-DIR-NPST / want/eat-want-NDIR-NPST
'I want (to eat) an apple' / *'I appear to want (to eat) an apple.'
b. *Hanako-wa ringo-o {*hoshi/*tabe-ta}-∅-i / {hoshi-/tabe-ta}-ga-ru.*
Hanako-TOP apple-ACC want-/eat-want-DIR-NPST / want/eat-want-NDIR-NPST
'Hanako appears to want (to eat) an apple.'

Using centered worlds (Lewis 1979), we assume that matrix declaratives are evaluated from the first person perspective, i.e. relative to world-individual pairs $\langle w, x\rangle$ where x is the speaker. The effect of evidentiality on subject reference can be captured by the following (anti-)logophoricity presuppositions.

(4) a. $[\![\text{DIR}]\!]^{\langle w,x\rangle} = \lambda P \in D_{et}\ \lambda y \in D_e\ :\ x = y\ .\ P(x)$
b. $[\![\text{NDIR}]\!]^{\langle w,x\rangle} = \lambda P \in D_{et}\ \lambda y \in D_e\ :\ x \neq y\ .\ P(x)$

The lexical entries in (4) predict the data in (3). For example, the application of DIR to the predicate *VP-ta* ('want to VP') presupposes that the external argument of *want* must be the

center of the evaluation world, i.e. the speaker of a declarative sentence. The opposite is the case with NDIR.

In questions and imperatives, the person constraint shifts to requiring second person subjects with DIR respectively blocking it with NDIR: (5) shows logophoric center switch to addressee in an imperative.

(5) *Ringo-o tabe-tai-∅/*-ta-garu hito, (you) te-o agete!*
apple-ACC eat-want-DIR/*want-NDIR person pro hand-ACC raise
'Raise your hand, people who wants to eat apples'

We propose that imperatives involve the silent obligation operator IMP (6) that shifts the logophoric center to the addressee of the speaker in the actual world (addressee(w, x)) and quantifies over deontic alternatives. We assume that questions also involve IMP since they require the addressee to respond to the question (Sauerland & Yatsushiro 2017).

(6) $[\![\text{S IMP}]\!]^{\langle w,y\rangle} = \lambda x \lambda \langle w, y\rangle \,.\, \forall \langle w', x'\rangle \in \textbf{Deon}(w, addresse(w, x)) \quad [\![S]\!]^{\langle w', x'\rangle} = 1$

In argument clauses embedded under attitude and perception verbs, the evidential perspective shifts to counterparts of the attitude holder. We assume that attitude verbs *omo-[WU]* ('think') and *i-[WU]* ('say') and also verbs of dreaming/imagination *yume-o mi-ru* ('see the dream') express universal quantification over world-individual pairs compatible with the content of the attitude holder's beliefs, speech, or dreams respectively:

(7) $[\![\text{S } \textit{attitude}\text{-verb}]\!]^{\langle w,y\rangle} = \lambda x \lambda \langle w, y\rangle \,.\, \forall \langle w', x'\rangle \in \text{content}(\textit{attitude})(w, x) \quad [\![S]\!]^{\langle w', x'\rangle} = 1$

We assume that attitude contents of *think* and *believe* are subject to the following counterpart sentience requirement:

(8) counterpart sentience: $\forall \langle w', x'\rangle \in \text{content}(\textit{say}/\textit{think})(w, x)$: x' must be sentient

Attitudes like *dream*, however, are not subject to the requirement in (8). In the following, we argue that this assumptions explains differences in logophor binding between the two types of verbs shown above in (1) and (2).

3 Logophors

As (9) shows, *zibun* is ambiguous between a logophoric and a reflexive interpretation (registers of Japanese used by male athletes furthermore allow a first person interpretation) (Tenny 2006, Oshima 2007).

(9) *Takasi-wa Yosiko-ga zibun-o home-ta-to omo-tta/i-tta*
Takasi$_i$-TOP Yosiko$_j$-NOM self$_{i/j}$-ACC praise-PST-that think-PST/say-PST
'Takasi thought / said that Yosiko praised Yosiko/Takasi.'

Logophoric binding in (9) could be captured directly as $[\![\text{zibun}]\!]^{\langle w,x\rangle} = x$. This would predict that the logophoric binding and evidentiality should have the same domains. Indeed this generalization has been widely assumed in the literature since Kuroda (1973). But example in (1) above shows that logophor subject can occur with NDIR under *dream* as well as under *pretend*, as shown in (10):

(10) *Watasi-wa **zibun**-ga ringo-o tabe-ta-**ga**-tteiru furi-o si-ta.*
I-TOP self-NOM apple-ACC apple-want-NDIR.PROG.NPST pretend-ACC do-PST

'I pretended I want to eat an apple.'

4 Account

The analysis of *zibun* and *-ga[C]* predicts that the two should interact in the way described already by Kuroda (1973). Tenny states the generalization as follows:

> *The domains for the long-distance binding of the anaphor [z]ibun out of the clause parallel the domains of the person constraint on direct experiencers.* (Tenny 2006: p. 253)

Following Nishigauchi (2014) and Charnavel (2019a), we assume that a logophoric operator **log** must occur in every attitude complement and also that every occurrence of a logophor must be c-commanded by a local occurrence of **log**. Deviating from earlier work though, we assume that variable assignments contain a special position ℓ (i.e. $\text{domain}(g) = \{\ell\} \cup \{1, 2, 3, \dots\}$) for the value of logophoric pronouns. Our **log** in (11a) assigns the perspective holder to the special variable ℓ. Importantly, **log** only does so when the perspective holder is sentient. We furthermore assume entry for logophoric *zibun*, given in (11b). (12) shows the LF we assume for the two readings of (9).

(11) a. $[\![\textbf{log S}]\!]^{g,\langle w,x\rangle} = \begin{cases} [\![S]\!]^{g[\ell \mapsto x],\langle w,x\rangle} & \text{if } x \text{ is sentient} \\ [\![S]\!]^{g,\langle w,x\rangle} & \text{otherwise} \end{cases}$

b. $[\![\text{zibun}]\!]^{g} = g(\ell)$

(12) Takasi think [that **log** [Yoshiko λ_i i zibun$_{\ell/i}$ praise]]

Attitude verbs *think* and *say* usually take animate perspective holders as required by the animacy condition above (but see (22) below). Our analysis predicts that *zibun* as logophor must take the most local sentient perspective holder, and therefore predicts the following generalization for cases like (1): the domains for the binding of logophors and subject restriction for anti-logophor NDIR should be the same (Kuroda 1973).

But we propose that *yume-o mi-[RU]* ('see a dream') and *furi-o s[URU]* ('do pretense') involve contents consisting solely of world-perspective holder pairs with non-sentient perspective holders. Then the LF in (13) accounts for the surprising example in (1).

(13) I **log** saw a dream [that **log** zibun wanted-NDIR an apple]

Our analysis correctly predicts that the interpretation of (1) with *yume-o mita* ('see a dream') cannot describe a *de se* scenario, e.g. where the speaker would feel hungry during the dream. This is corroborated by (14) being felt to be best translated by describing Hanako as a third person in the dream.

(14) *Hanako-wa [zibun-ga ringo-o hoshi-ga-tte-iru] yume-o mi-ta*
H.-TOP self-NOM apple-ACC want-EVID-PROG-NPST dream-ACC see-PST
'Hanako saw a dream that Hanako was wanting an apple.'

5 Matrix and Adjunct clauses

In our account, binding of *zibun* requires the presence of **log** when it is not a reflexive. As we mentioned above for (9), the use of *zibun* for first person reference is associated with male sportsman speech, which is also appropriated by other social groups indicating social meaning of toughness. We propose that the use of direct first person reference (e.g. *watashi*, 'I') is more

economical than the use of **log** and *zibun*. Violation of this economy constraint brings about the effect of focus on the animacy of the speaker.

Tenny (2006) observed that *zibun* can be logophorically bound when embedded in a reason clause ((15)), but not when embedded in a temporal clause ((16)), showing that there is a variability in domain amongst embedded clauses across which logophors can be bound long-distance.

(15) *Takasi-wa [Yosiko-ga mizu-o zibun-ni kake-ta node] nurete-sima-tta.*
Takasi$_i$-TOP [Yosiko$_j$-NOM water-ACC self$_{i/j}$-ON pour-PST because] wet-end.up-PST
'Takasi got wet because Yosiko poured water on Yosiko/Takasi.'

(16) *Takasi-wa [Yosiko-ga mizu-o zibun-ni kaketa toki] nurete-sima-tta.*
Takasi$-i$-TOP [Yosiko$_j$-NOM water-ACC self$_{*i/j}$-ON pour-PST when] wet-end.up-PST
'Takasi got wet when Yosiko poured water on Yosiko/*Takasi.'

zibun and *gaR* interact in the above environment as predicted by Kuroda's generalization: For example in *node* 'because'-clauses, from which long-distance binding of *zibun* is possible, *gaR* cannot co-occur with the logophoric *zibun* subject.

(17) *Takasi-wa [zibun-ga ne-ta-∅-i / *ne-ta-ga-tteiru node]*
Takasi-TOP self-NOM sleep-want-DIR-NPST / sleep-want-NDIR-PROG.NPST because
naki-hazime-ta.
cry-start-PST
'Takasi started crying because self wants to sleep.'

We assume that *node* ('because')-clauses can involve an attitudinal operator, following Charnavel (2019b). Temporal adjuncts, on the other hand, cannot. This account also predicts that the non-logophoric pronoun *kare* can also be used to express the long-distance bound meaning of (16).

(18) *Takasi-wa [Yosio-ga mizu-o kare-ni kake-ta node] nurete-sima-tta.*
Takasi$_i$-TOP [Yosio$_j$-NOM water-ACC he$_{i/*j}$-ON pour-PST because] wet-end.up-PST
'Takasi got wet because Yosio poured water on Takasi/*Yosio.'

Our account furthermore predicts that embedding (18) further under an attitude verb blocks the availability of the non-logophoric pronoun.

(19) *Takasi-wa [Yosio-ga mizu-o zibun/??kare-ni kake-ta node]*
Takasi$_i$-TOP [Yosio$_j$-NOM water-ACC self/he$_{i/j}$-ON pour-PST because]
nurete-sima-tta-to i-tta.
wet-end.up-PST-that say-PST
'Takasi said he got wet because Yosio poured water on Takasi/Yosiko.'

In (19), our account predicts that **log** must occur in the complement of *say*. Since *zibun* and *kare* are then equally complex, the more specific *zibun* must be used.

6 Further predictions

In languages with pure (i.e. non-reflexive) logophoric pronouns, logophors are blocked in the complements of perception words (Culy 1994) as illustrated by (20) from Ewe. Our account can capture this observation by assuming that direct perception verbs like *se* ('hear') also only involve a camera perspective.

(20) *Kofi se Kɔku wò-nɔ —/*yè dzu-m. (EWE)*
Kofi heard Koku PRO-be PRO/*LOG insult-A
'Kofi heard Koku insult him.' (Culy 1994: p. 1068)

In fact, the composition of *dream* in Japanese involves the perception verb *see*. The dream report as in (21), shows that direct evidentials can be licensed in dream report without *see*.

(21) *Yume-no naka-de watasi-wa ringo-o tabe-?ta-∅-katta / ta-**ga**-ttei-ta.*
Dream-gen inside-at I-TOP apple-ACC eat-want-DIR-PST / want-NDIR-PROG-PST
'In my dream, I wanted/appeared to want to eat an apple.'

Even the attitude verb *think* in (22) seems to involve a perspective holder not suitable for logophoric binding and therefore *zibun* must be bound by the matrix subject. This is captured by our account if we regard the police as non-sentient.

(22) *Yosiko-wa [keesatu-ga [**zibun**-ga sin-da-to] omo-ttei-ru-to] itta.*
Yosiko-TOP police-NOM self-NOM die-PST-that think-PROG-NPST-that said
'Yosiko said that police thinks that she died.'

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