Egophoric attitudes and questions in Kathmandu Newar[1]

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Abstract. Kathmandu Newar (Sino-Tibetan) has an *egophoric* verb marking system: an *egophoric* (or *conjunct*) verb form co-occurs with first person in declaratives and second person in interrogatives. Egophoric marking is restricted to predicates of intentional action and also interacts with evidential markers. This paper examines the distribution of egophoric marking in reports of speech and attitudes, extending to this domain the analysis of egophoric marking as indicating self-ascription by the epistemic authority for the utterance. This distribution reveals that egophoric marking of a clause further introduces an implication that the epistemic authority believes the proposition denoted by the clause.

1   Introduction

In *egophoric* verb marking systems, a special form of the verb called the *egophoric* (or *conjunct*) form is found in first person statements and second person questions, while the *non-egophoric*, (or *disjunct*) form appears elsewhere. Such a system is found in the Tibeto-Burman language Newar (Nepal Bhasa) spoken primarily in the Kathmandu Valley. The characteristic interrogative flip pattern of Newar is illustrated with the past tense forms of the verb meaning 'go' shown in Table 1. The egophoric form *wan-ā* bears a special suffix and also neutralizes the perfective/imperfective distinction found on the non-egophoric forms.

	declarative	interrogative
1st person	*wan-ā*	*wã: / wan-a*
2nd person	*wã: / wan-a*	*wan-ā*
3rd person	*wã: / wan-a*	*wã: / wan-a*

Table 1: Finite past forms of Newar 'to go'. The non-egophoric forms distinguish perfective from imperfective. The macron indicates vowel quality: *ā* = low central vowel; *a* = low back vowel.

The egophoric verb form is glossed EGO in the following examples (from Hargreaves 2005, ex. (51) to (56)):

(1)   a.   jĩ: a:pwa twan-ā.
              1.ERG much drink-PST.EGO
              'I drank a lot.'

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    b.   jĩ: a:pwa twan-a   lā.
        1.ERG much drink-PFV.NON.EGOQ
        'Did I drink a lot?'

(2)   a.   chã   a:pwa twan-a.
        2.ERG much drink-PFV.NON.EGO
        'You drank a lot.'

    b.   chã   a:pwa twan-ā   lā.
        2.ERG much drink-PST.EGOQ
        'Did you drink a lot?'

(Glosses below are simplified to EGO and NON.EGO, omitting any indication of the tense/aspect. All such examples are in the past tense.). EGO marking also interacts with evidentiality, as we shall see below. In previous work we have sought to specify the semantics of the EGO marker (Hargreaves, 2005, in press; Wechsler, in press; Coppock & Wechsler, to appear). This paper continues that project, focusing now on evidence from the use of EGO in subordinate clauses expressing the contents of speech and attitude reports.

Following that earlier work, we posit that the EGO morpheme signals that the proposition denoted by its clause is the content of an attitude one has about oneself, called a *de se* attitude or a *self-ascription* (Lewis, 1979a). The role of the participant in the utterance context who self-ascribes that content is called the *epistemic authority*: roughly the speaker uttering a declarative and the addressee hearing a question, modulo the systematic effects of evidential markers. When the EGO morpheme marks a subordinate clause in Newar, we find that the self-ascriber of that clause's content must be the *reported* epistemic authority, and not the root authority. For example, in reports of attitudes, coreference with the *reported* attitude-holder (*Rām* in (3)) determines EGO-marking in the subordinate clause:

(3)   a.   Rām-ã: (wã) gāka   jyā yān-ā   dhakā: cāl-a.
        Ram-ERG 3.ERG enough work do-EGO COMP be.aware-PFV.
        'Ram$_i$ realized (lit. became aware) that he$_{i/*j}$ had done enough work.'

    b.   Rām-ã: (wã) gāka   jyā yāt-a   dhakā: cāl-a.
        Ram-ERG 3.ERG enough work do-NON.EGO COMP be.aware-PFV.
        'Ram$_i$ realized (lit. became aware) that he$_{*i/j}$ had done enough work.'

With EGO on the subordinate verb, its subject is coreferential with the matrix subject; with NON.EGO it is not. Interestingly, if the attitude verb in a sentence like (3a) is negated ('Ram didn't realize...'), the EGO marking in the subordinate clause disappears, even if the subjects are coreferential (see Section 3).

Next we review the distribution of Newar EGO marking in main clauses (Section 2) and embedded clauses (Section 3), followed in Section 4 by a summary of formal analysis in Coppock & Wechsler (to appear). Then we modify the formal analysis to account for new data from clausal complements (Section 5).

2   Semantic properties of Newar EGO-marking

As shown above, first person declarative clauses are typically EGO marked. However, when certain evidential words appear, first person subjects can cooccur with the NON.EGO form of the verb.

(4)   jĩː   aːpwa twan-a   khanisā.
       1.ERG much drink-NON.EGO EVID
       'It appears I drank a lot.'

Sentence (4) would be appropriate if the speaker doesn't remember drinking, perhaps because heavy drinking wiped away any memory of the event. Without EGO, the evidential source for the information expressed in the utterance is understood to be indirect or inferential. In contrast, the EGO form is used, as in (1a), by a speaker who remembers carrying out the action described. Conversely, evidential marking can also enable an EGO-marked verb to cooccur with a third person subject, if the individual denoted by the subject is understood as the source of the report:

(5)   a.   syām-ã   aːpwa twan-ā   hã
             Syam-ERG much drink-EGO EVID
             'According to Syam$_i$, he$_i$ drank a lot.'

       b.   wã   aːpwa twan-a   hã
             3.ERG much drink-NON.EGO EVID
             'It is said that he drank a lot.'

In sentence (5a) with EGO marking, *Syam* is understood as the source of the report. But in (5b) without EGO, the source is understood to be hearsay originating from someone other than a participant in the event.

Summarizing so far, the subject of an EGO-marked verb is the *(epistemic) authority* for the utterance (Hargreaves, in press; Hale, 1980).[2] In declarative sentences the authority is typically the speaker, in which case the subject is in first person. But authority can be deferred in evidentials, leading to third person uses. In interrogatives, the authority is the addressee of the utterance, so the subject is in second person.

EGO appears only in descriptions of intentional actions. With a first person subject, the verb *thwān* in EGO form indicates intentional kicking, but in NON.EGO form it indicates accidental bumping:

(6)   a.   jĩː   wa-yāta thwān-ā.
             1.ERG 3-DAT   kick-EGO
             'I kicked him/her [intentionally].'

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[2]Other terms for notions equivalent or closely related to epistemic authority include: *commitment holder* (Krifka, 2014), *informant* (Bickel, 2008), *epistemic source* (Hargreaves 2005), *seat of knowledge* (Speas & Tenny, 2003), *locutionary actor* (Hale, 1980), *locutor* (Aikhenvald, 2004), and *judge* (McCready, 2007).

b. jĩ: wa-yāta thwān-a.
   1.ERG 3-DAT kick-NON.EGO
   'I bumped against him/her [by accident].'

Inherently non-intentional predicates like *thyan-* 'arrive' and *thul-* 'understand' never take the EGO form. Still others, like the verb *twan-* 'drink' in example (1) and (2) above, indicate intentional action by default, hence take EGO form, but this default can be overridden with modification by *macāeka* 'unwittingly', in which case the NON.EGO form is used.

As noted in the introduction, the EGO morpheme signals the content of a *de se* attitude held by the epistemic authority. In other words, the epistemic authority knowingly *self-ascribes* that content. This property of EGO marking is best shown with subordinate clause uses. Consider the following scenario: *Syam is looking at a photo from a wild party in which someone is wearing a lampshade on his head. Syam points at the besotted partier and says to you, 'That guy drank too much'; unbeknownst to Syam, it is himself in the picture.* This scenario can be reported with the English sentence (7a), but not with the controlled infinitive in (7b):

(7) a. Syam$_i$ said that he$_i$ drank too much. (need not be *de se*)
     b. #Syam$_i$ claimed PRO$_i$ to have drunk too much. (*de se* only)

The Newar sentence (8) is syntactically like the English (7a), but semantically like (7b):

(8) #Syām-ã   wã   a:pwa twan-ā   dhakā: dhāl-a.
     Syam-ERG 3.ERG much drink-EGO COMP say-PERF
     'Syam$_i$ said that he$_i$ drank too much.'

Like the English control construction, (8) cannot describe the scenario above: the EGO marking forces the interpretation in which Syam knowingly self-referred.

We take this *de se*-ness to be a fundamental semantic property of EGO morphology. From this fundamental property, together with certain general assumptions about conversational pragmatics, we will derive the restriction to first person in root declaratives (unless deferred using evidentials) and second person in root interrogatives.

3   Egophoricity in embedded clauses

In the clausal complements of speech and attitude verbs, EGO-marking is determined by the *reported* authority rather than the root authority for the utterance. In reports of statements, first of all, coreference with the reported *speaker* determines EGO-marking in the embedded clause:

(9) a. syām-ã   wã   a:pwa twan-ā   dhakā: dhāl-a.
         Syam-ERG 3.ERG much drink-EGO COMP say-PERF
         'Syam$_i$ said that he$_i$ drank too much.'
     b. syām-ã   wã   a:pwa twan-a   dhakā: dhāl-a.
         Syam-ERG 3.ERG much drink-NON.EGO COMP say-PERF
         'Syam$_i$ said that he$_j$ drank too much.'

The reported speaker is the epistemic authority for the embedded declarative clause.

In reports of questions, coreference with the reported *addressee* determines EGO-marking in the embedded clause:

(10) Rām-ã: wa-yāta [wã: gāka jyā yān-ā / yāt-a dhakā] nyan-a.
      Ram-ERG 3SG.DAT 3SG.ERG enough work do-EGO / do-NON.EGO COMP ask-PFV
      'Ram asked him$_i$ whether he$_{i/j}$ (EGO/NON.EGO) did enough work.'

The reported addressee is the epistemic authority for the indirect question.

Finally, in reports of *de se* attitudes, coreference with the reported attitude-holder determines EGO-marking in the subordinate clause. This is shown in example (3) above. The reported attitude-holder is the epistemic authority for the embedded clause.

Summarizing, the subject of an EGO-marked verb in a complement clause must refer to the *reported* epistemic authority. Assuming, as we will later, that the authority is a parameter of the context, then the behavior of EGO-marking in embedded clauses indicates a kind of indexical shift, where the authority index has shifted to the embedded context. A similar authority shift has been observed for many evidential systems (Korotkova, 2016). To get a proper understanding of embedded egophoricity in Newar, we should consider further that *negated* attitude verbs reject EGO-complements:

(11) Rām-ã: (wã) gāka jyā yān-ā dhakā: cāl-a.
      Ram-ERG 3.ERG enough work do-EGO COMP be.aware-PFV
      'Ram$_i$ became aware (realized) that he$_{i/*j}$ had done enough work.'

(12) *Rām-ã: (wã) gāka jyā yān-ā dhakā: ma-cā:.
      Ram-ERG 3.ERG enough work do-EGO COMP NEG-aware.IPV
      'Ram$_i$ wasn't aware that he$_{i/j}$ had done enough work.'

In (11) EGO-marking on a verb in the complement clause indicates that the subject of the EGO-marked verb refers to the reported bearer of the attitude (*Rām*), as usual. But in (12), where the attitude verb has been negated, we find that the embedded verb cannot take the EGO form even if its subject is coreferential with the attitude bearer.

The badness of (12) can be explained as follows. The verb *cā-* 'be aware' is factive, so the content of the complement clause is presupposed. We posit that when a clause is EGO-marked, its content includes the information that the authority believed it at reference time. But that directly conflicts with (12), so the sentence is bad.

We will say that EGO-clauses must be *authorized*: the authority in the context should believe the proposition denoted by the clause. We explore some further consequences of that claim below.

4 Formal analysis

4.1 Overview

To capture the semantics of an attitude *de se*, Coppock & Wechsler (to appear) posited a perspectival *agent* parameter as a refinement on semantic content. The content of a statement, for example, is not a set of worlds but rather a set of world-agent pairs, or *centered worlds* (Quine, 1969; Lewis, 1979a). EGO-marking on a verb identifies its subject with that agent parameter. When a sentence is uttered, the authority in the utterance context, whose commitment to the centered world proposition is at issue, effectively centers those worlds on herself, thus self-identifying as the perspectival agent. As explained below, the semantic content interacts with the pragmatic theory to predict the person restrictions on the subjects of declaratives and interrogatives, as well as the exceptions due to the deferring of the authority by means of evidential words.

In this paper we address EGO-marking in complement clauses. Like Coppock & Wechsler (to appear) we assume that the Kaplanian context has a parameter for the *authority*. For EGO-marking in complements of speech/attitude verbs, the authority parameter shifts to the *reported* authority. We further posit that EGO-marking projects a belief by the authority in the centered proposition denoted by the clause. The latter assumption effectively explicates the notion of authority.

4.2 EGO marks self-ascribed content

Coppock & Wechsler (to appear) use a logical representation language that they call *Egophoric Logic* (EL). The extension of an expression of EL is relative to a model M, an assignment g, a Kaplanian context of utterance c, and an intensional index i. The Kaplanian context c is a tuple of the standard parameters for the speaker sp_c, addressee ad_c, time of utterance t_c, and location of utterance l_c— plus an authority parameter au_c:

$$c = \langle sp_c, ad_c, t_c, l_c, au_c \rangle$$

The intensional index i for a sentence contains parameters for worlds w_i and agents a_i:

$$i = \langle w_i, a_i \rangle$$

(We will add au_i and t_i later.) So the extension depends on an agent a, which serves as the perspectival center. This idea derives from the idea of centered worlds (Quine, 1969; Lewis, 1979a), and has been implemented similarly for the analysis of obligatory control by Anand & Nevins (2004) and Pearson (2012), among others, and for the analysis of evidentials by Korotkova (2016).

We define the *extension* of an EL expression ϕ relative to model M, context c, variable assignment g, and intensional index i, and write it as follows: $[\![\phi]\!]^{M,g,c,i}$. The *centered intension* of ϕ is a function from agent-world pairs to extensions, shown in (13a); the *uncentered intension* is a function from worlds to extensions, shown in (13b).

(13)   a. $[\![\phi]\!]^{M,g,c}_{\cent} = f : f(\langle a, w \rangle) = [\![\phi]\!]^{M,g,c,\langle a,w \rangle}$
         b. $[\![\phi]\!]^{M,g,c,a}_{\$} = f : f(w) = [\![\phi]\!]^{M,g,c,\langle a,w \rangle}$

So the centered intension of a sentence (wrt. a given M, g and c) will be a centered worlds proposition, and the ordinary/uncentered intension of a sentence (wrt. a given M, g, c and a) will be an ordinary possible worlds proposition.

With these tools, we can define an egophor as a form that picks out the agent at perspectival center. We designate the constant SELF as an egophor in EL. The extension of this expression with respect to agent a is a, shown in (14a). By way of contrast, the constant for a first person indexical is shown in (14b):

(14)   a. $[\![\text{SELF}]\!]^{M,g,c,i} = a_i$ (egophor)
           b. $[\![\text{I}]\!]^{M,g,c,i} = sp_c$ (1st person indexical)

Using these constants, the first person pronoun *jĩ:* translates into EL as I:

(15)   **EL translation for Newari first person singular pronoun**
        jĩ: ⤳ I

The EGO marker is a partial identity function on predicates that takes a predicate P and returns a predicate that holds of x if P holds of x and is defined if x is SELF, the perspectival center.

(16)   **EL translation for Newari conjunct marker**
        $\bar{a} \leadsto \lambda P_{et} . \lambda x . P(x) \wedge \partial(x = \text{SELF})$

Here ∂ can be read 'partial'; it yields undefinedness when the formula in its scope is not true (Beaver, 2001; Beaver & Krahmer, 2001). Assuming an appropriate translation for 'drank a lot', and appropriate composition rules (Function Application, etc.), the translation for *jĩ: a:pwa twan-ā* 'I drank-EGO a lot' will then be as follows:

(17)   *jĩ: a:pwa twan-ā*
        $\leadsto \text{DRANK-ALOT}(\text{I}) \wedge \partial(\text{SELF} = \text{I})$

The centered intension of the formula in (17) with respect to context c is a function that picks out the set of centered worlds $\langle a, w \rangle$ such that $a = sp_c$ and a drank a lot in w. This proposition is something that can serve as the object of an attitude *de se*, following Lewis (1979a).

4.3   Updating the discourse context with centered worlds propositions

We treat speech acts, including assertions and questions, as updates on discourse contexts (Lewis, 1979b; Ginzburg, 1996; Roberts, 1996; Farkas & Bruce, 2010, i.a.). In an assertion, the centered intension of the clause corresponding to the at-issue content will be what the *authority of the context* becomes committed to. If participant x is committed to a set of centered worlds P, then for all centered worlds $\langle a, w \rangle$ in P, x publicly commits to the belief that he or she may be a in w.

But it cannot be this *de se* belief that the addressee acquires in communication: if Syam expresses his *de se* attitude by saying to Mary, 'I drank a lot', then Mary does not come to believe that she (Mary) drank a lot. So centered worlds propositions do not directly update the the common ground. Instead the centered proposition is uncentered with the authority, and the resulting ordinary (uncentered) proposition enters the common ground.

We implement this idea with a discourse model that tracks the individual commitments of the discourse participants, namely a variant of Farkas & Bruce (2010), adapted slightly for use with centered worlds propositions. Each participant is associated with a set of *Discourse commitments*, which are sets of centered worlds. We also have a *Table*, following Farkas and Bruce, which is a stack of questions under discussion (QUD's). We assume that these questions under discussion are sets of centered worlds propositions. The *Common Ground* on the other hand is a set of non-centered, ordinary possible worlds. We also adopt from Farkas and Bruce a notion of a *Projected Set*, which is a set of projected future common grounds corresponding to different ways of resolving the issue on the table.

Speech acts are operations that update such contexts. If ϕ is *asserted* in context c, then the centered intension of ϕ is added to au_c's discourse commitments. The singleton set containing the centered intension of ϕ, $\{[\![\phi]\!]_{\mathcal{c}}^{M,g,c}\}$, is placed on the Table. And finally, a common ground is projected in the Projected Set which integrates the authority-uncentered intension of ϕ, $[\![\phi]\!]_{\$}^{M,g,c,au_c}$. This is an ordinary possible worlds proposition that is obtained by saturating the perspectival center parameter with the authority of the context. So when the proposal is accepted, the other discourse participants need not acquire a *de se* attitude to the centered worlds proposition.

Let us consider some examples of assertions. In (18), repeated from (1) above, EGO-marking indicates that the proposition expressed is centered around the subject, and since the subject is a first person pronoun, it is centered on the speaker. So all pairs $\langle a, w \rangle$ in the centered intension are such that $a = sp_c$. The speaker is the authority, who commits to this centered intension, and no problems will arise when we put the authority-uncentered version in the common ground.

(18) jĩ: a:pwa twan-ā.
      1.ERG much drink-PAST.EGO
      'I drank-EGO a lot'

In (19) the centered intension is centered around the addressee:

(19) *chã   a:pwa twan-ā.
       2.ERG much drink-PAST.EGO
       'You drank-EGO a lot.'

But the authority is still the speaker, so this is problematic. The speaker probably does not want to self-ascribe being the addressee, and furthermore, the authority-uncentered version will be a contradictory proposition, the empty set.

The authority of the context au_c is usually but not always the speaker, as Faller 2006 and Murray 2010, i.a., have emphasized in connection with evidentials, so it is not always the speaker that becomes committed to the centered intension of ϕ. In the case of reportative evidential marking, we propose that the source of the information being reported be considered the authority of the context au_c. This individual, rather than the speaker, is committed to the content of the clause. Since evidential marking is used to indicate that the authority is someone other than the speaker, we predict that there should not be egophoric marking on the verb in the presence of evidential marking with a first person subject.

5   EGO-marked clauses must be authorized

In section 3 we saw that the subject of an EGO-marked verb in a complement clause is the *reported* epistemic authority: in reports of declaratives, the reported speaker; in reports of interrogatives, the reported addressee; and in reports of attitudes, the reported attitude holder. And we saw in (12) that negated attitude verbs reject EGO-marked complements. To account for this fact, we stipulate that EGO-clauses must be *authorized*: the authority in the context should believe the proposition denoted by the clause.

To formalize the authorization requirement, we first define a *doxastic accessibility* relation $\mathcal{R}_{dox}$: $\langle a, w \rangle$ stands in $\mathcal{R}_{dox}$ to $\langle a', w' \rangle$ iff it is compatible with what a believes in w for a to be a' in w'. We will say that an agent a *believes* $\mathcal{P}$ in world w according to M iff for $\langle a', w' \rangle$ such that $\langle a, w \rangle \, \mathcal{R}_{dox} \langle a', w' \rangle$: $\mathcal{P}(\langle a', w' \rangle) = \text{T}$.

The *believes* relation is used to define a new logical constant AUTHORIZED in EL:

(20) $[\![\text{AUTHORIZED}]\!]^{M,g,c,i} = f : f(\mathcal{P}) = \text{T}$ iff au_c *believes* $\mathcal{P}$ in w_i at t_c according to M.

Now let us revise our EL translation for EGO:

(21) $\text{-}\overline{a} \rightsquigarrow \lambda P_{et} . \lambda x . P(x) \wedge \partial(x = \text{SELF} \wedge \text{AUTHORIZED}(\hat{}P(x)))$

Where $\hat{}$ is a Montagovian 'hat' operator giving the centered intension: $[\![\hat{}\phi]\!]^{M,c,g,\langle w,a \rangle} = [\![\phi]\!]^{M,c,g}_{\phi}$ Next we will consider how authorization works in root clauses, before turning to embedded clauses in the next section.

In a simple declarative, EGO indicates that the speaker believes herself to be the individual denoted by the subject, and believes *de se* the proposition denoted by the clause. Example (1) is repeated here:

(22)   jĩ: a:pwa twan-ā
        1.ERG much drink-EGO
        'I drank-EGO a lot'

Due to the condition of authorization imposed by the EGO marker, an utterance of (22) implies that the speaker (qua authority) believes herself to be the speaker (qua referent of the subject *jĩ:* 'I') and to have drunk a lot. If a second person pronoun replaces the subject of (22) but the verb remains in EGO form, then the sentence implies that the speaker believes herself to be the addressee. Hence such a sentence is unacceptable, as shown in (19).

When evidentials defer authority to a third party then that third person subject must authorize the clause:

(23)   syām-ã   a:pwa twan-ā   hã.
        Syam-ERG much drink-EGO EVID
        'According to Syam$_i$, he$_i$ drank a lot.'

Here authority is conferred upon Syam. The use of the EGO form implies that the authority (Syam) believes himself to have drunk a lot.

We saw that in root questions with second person subjects, EGO-marking is required:

(24)   chã   a:pwa twan-$\bar{a}$ l$\bar{a}$?
        2.ERG much drink-EGO Q
        'Did you drink-EGO a lot?'

Let us assume that the meaning of a polar question is the set containing the propositions denoted by the prejacent and its negation (Hamblin, 1958; Karttunen, 1977).

$$[\![?\phi]\!]_{\mathcal{C}}^{M,g,c} = \{[\![\phi]\!]_{\mathcal{C}}^{M,g,c}, [\![\neg\phi]\!]_{\mathcal{C}}^{M,g,c}\}$$

For the question to be answerable, the addressee should believe some proposition in that set. So our new generalization is that EGO-marking on a clause denoting a set π of propositions indicates that the authority believes some proposition in π.

(25)   Revised definition of AUTHORIZED:
        $[\![\text{AUTHORIZED}]\!]^{M,g,c,i} = f : f(\pi) = $ T iff there is a $\mathcal{P} \in \pi$ such that au_c *believes* $\mathcal{P}$ in w_i
        according to M.

The translation of EGO into EL remains the same; it is given in (21) above.

    With this new definition of AUTHORIZED, the EGO marker in (24) now implies that the authority for an utterance of that sentence, namely the addressee since it is a question, believes either the prejacent or its negation. So the addressee believes either that she is the addressee (qua referent of the subject *chã* 'you') and that she drank a lot, or that she is the addressee and that she did not drink a lot. In other words, it implies that the addressee could answer the question sincerely.
We cannot replace the subject with a first person pronoun and keep the EGO marking:

(26)   *jĩ: a:pwa twan-$\bar{a}$ l$\bar{a}$?
        1.ERG much drink-EGO Q
        'Did I drink-EGO a lot?'

Here the authorization requirement means that the addressee (qua authority) believes herself to be the speaker (qua referent of the subject pronoun). The addressee does not believe herself to be the speaker so the sentence is out.

    A rhetorical question expresses an assertion, so the speaker, not the addressee, is the authority. As a result, EGO marking behaves as if the sentence were a declarative:

(27)   Ji   ana wan-$\bar{a}$ l$\bar{a}$?
        I.ABS there go-EGO Q
        'Did I go there? (I most certainly did not!)' (Hale, 1980, p. 100)

The EGO form means that the speaker believes herself to be the referent of the subject pronoun, and to have either gone there or not.

6 Analysis of egophoricity in embedded clauses

For clausal complements of speech and attitude predicates, the authority in the context shifts to the reported authority in the attitude/speech event described in the matrix clause. Shifting is nearly obligatory (an exception is discussed below):

(28) a. *laksmĩ: jĩ: gãkka jyā yān-ā dhakā: siu:.
Laksmi.ERG 1.ERG enough work do-EGO COMP know.IMPV
'Laxmi knew that I worked enough.'

b. laksmĩ: jĩ: gãkka jyā yāt-a dhakā: siu:.
Laksmi.ERG 1.ERG enough work do-NON.EGO COMP know.IMPV
'Laxmi knew that I worked enough.'

The EGO marker is not possible in (28a), despite the first person subject of that verb. While the root authority is speaker in the utterance, hence the referent of that first person subject, the authority has shifted to the reported authority, namely Laksmi.

Following previous accounts of the shifting of person indexicals (Anand & Nevins, 2004, i.a.) and shifting of the epistemic authority for the interpretation of evidentials (Korotkova, 2016), we posit that the authority and time contextual parameters au_c and t_c are replaced with corresponding parameters of the intensional index. The utterance context is a tuple of parameters for the speaker, addressee, time of utterance, location of utterance, and authority:

$$c = \langle sp_c, ad_c, t_c, l_c, au_c \rangle$$

Our intensional index previously had world and perspectival agent parameters, to which we now add parameters for the authority and time:

$$i = \langle w_i, a_i, au_i, t_i \rangle$$

The interpretation of most sentences of Newar will not depend upon au_i or t_i. But speech and attitude reports will depend upon those parameters. The authority parameter au_i is fixed to be the reported speaker or attitude bearer, and the time t_i is the time of the reported speech event or attitude.

A special shifting operator OP is defined for EL:

(29) $[\![\text{OP } \phi]\!]^{M,g,c,i} = [\![\phi]\!]^{M,g,c[au \mapsto au_i, t \mapsto t_i],i}$

When OP combines with a constituent ϕ, it overwrites the authority and time parameters of the utterance context with the authority and time values of the intensional index, for the interpretation of ϕ. The operator OP is a 'monster' in the sense of Kaplan (1977): it operates on the *character* of the item in its scope, the function from contexts to contents.

This monstrous operator is encoded by the Newari complementizer *dhakā*, whose EL translation is given here:

(30) *dhakā:* ↝ OP

The complementizer *dhakā* is a grammaticalized form of the verb *dhā-* 'to say'. As far as we know, authority-shifted complement clauses in Newar are always marked with *dhakā*.

Consider first speech reports. When *dhakā* combines with the bracketed embedded clause in (31), the authority for the interpretation of that bracketed clause is set to be the reported authority, Syam; and the time is set at the time that Syam spoke:

(31) syām-ã [wã a:pwa twan-ā] dhakā: dhāl-a.
      Syam-ERG 3.ERG much drink-EGO COMP say-PERF
      'Syam$_i$ said that he$_i$ drank a lot.'

The translation of (31):

(32) SAYS(SYAM, OP([ˆDRANK-ALOT(x) ∧ ∂(x = SELF ∧ AUTHORIZED(ˆDRANK-ALOT(SYAM)))]))

The effect of AUTHORIZED is to imply that what Syam said is not just that he drank a lot, but that he believed he drank a lot.

Negating a speech report has no effect on the EGO-marking in the complement clause:

(33) Syām-ã wã a:pwa twan-ā dhakā: ma-dhā:.
      Syam-ERG 3.ERG much drink-PST.EGO COMP NEG-say.IMPF
      'Syam$_i$ didn't say that he$_i$ drank a lot.'

Here Syam did not say that he believed himself to have drunk a lot. There is no contradiction in (33).

However, negating an attitude verb is different:

(34) *Rām-ã: (wã) gāka jyā yān-ā dhakā: ma-cā:.
      Ram-ERG 3.ERG enough work do-EGO COMP NEG-aware.IPV
      'Ram$_i$ wasn't aware that he$_{i/j}$ had done enough work.'

The effect of the AUTHORIZED condition, contributed by the EGO marker, is to imply that at reference time, Ram believed himself to have done enough work. But (34) entails the opposite, so the sentence is unacceptable due to a presupposition failure.

In indirect questions that are reports of direct questions, authority shifts to the reported addressee. So EGO-marking depends on whether the subject refers to the reported addressee, namely the referent of the dative pronoun *wa-yāta* 'him':

(35) Rām-ã: wa-yāta [wã: gāka jyā yān-ā dhakā] nyan-a.
      Ram-ERG 3SG.DAT 3SG.ERG enough work do-EGO COMP ask-PFV
      'Ram asked him$_i$ whether he$_i$ did enough work.'

As with a direct question, let us assume that an indirect question denotes the set of propositions corresponding to possible answers (Karttunen, 1977). Given our revised definition of AUTHORIZED in (25), the EGO-marking on the verb in (35) indicates that at the time of the reported asking, the authority either believes that he did enough work, or believes that he did not do enough work.

Indirect question complements of attitude verbs are similar:

(36) laksmĩ: [su-yāta dhebā biy-ā-gu   dhakā:] siu:.
      Laksmi.ERG who-DAT money give-EGO-NMLZ COMP know.IMPV
      'Laxmi$_i$ knows who she$_i$ gave the money to.'

The denotation of the constituent question 'who she gave the money to' is a set of propositions of the form 'she gave the money to *x*', where *x* ranges over people. The use of the EGO form implies that the reported authority (Laxmi) believes some proposition from that set, which is completely consistent with the meaning of (36).

However, if the attitude verb is negated, then this implication is inconsistent with the meaning, and so EGO-marking disappears from the indirect question.

(37) *Rām-ã: gāka   jyā yān-ā   dhakā (wã:) ma-siu:.
      Ram-ERG enough work do-EGO COMP 3.ERG NEG-know.IMPV
      'Ram$_i$ doesn't know whether he$_{i/j}$ did enough work.'

The use of the EGO form implies that either (i) Ram believes he did enough work or (ii) Ram believes he did not do enough work. In other words, it implies that Ram knows whether he did enough work. But this presupposition directly contradicts the sentence itself, so it is unacceptable.

We noted above that shifting to the reported authority is nearly obligatory, citing (28a). But there is at least one situation in which shifting is blocked, illustrated in (38).

(38) laksmĩ: jĩ: gākka jyā yān-ā   dhakā: ma-siu:.
      Laksmi.ERG 1.ERG enough work do-EGO COMP NEG-know.IMPV
      'Laxmi didn't know that I worked enough (but I know I did).'

The sentence (38) explicitly denies that Laxmi could be the authority for the complement clause. So there is no shifting, and EGO is licensed instead by the root authority, the speaker. An utterance of this sentence implies that the speaker believed herself to have done enough work. Here the context has not shifted. Note that *siu:*, like English 'know', is a factive verb in Newar. Sentence (38) implicates that the complement clause is true, so given the maxim of quality, the speaker who utters this sentence implies that she believes she worked enough.

7 Conclusion

Following earlier work, we have analyzed EGO morphology as marking the content of a self-ascription. We have further postulated that EGO-marking also indicates that the epistemic authority believes *de se* a proposition in the denotation of the clause; when such propositions are centered, then the authority self-identifies as the agent at the center. For complements of speech/attitude verbs, the authority can (and normally does, unless blocked) shift to the authority of the reported context.

We are modeling the epistemic authority as a parameter of the utterance context, thus assimilating it to the more familiar elements of the context that are picked out by indexical expressions: speaker, addressee, time, and place of utterance. The tools developed for shifted indexicals have been repurposed for authority shifting. But the authority differs from those other parameters in an important respect. The authority is not a special target for reference; there are no expressions of

Newar that directly refer to the authority. Instead the authority is a component of the discourse pragmatic system itself: the authority is the person whose commitment to a proposition is either being made (as in an assertion) or being questioned. So it should not surprise us that shifting, while relatively rare and generally optional for the more familiar indexicals, is nearly obligatory for the authority. After all, the point of embedding a sentence under a speech or attitude predicate is to shift responsibility for it to the reported agent.

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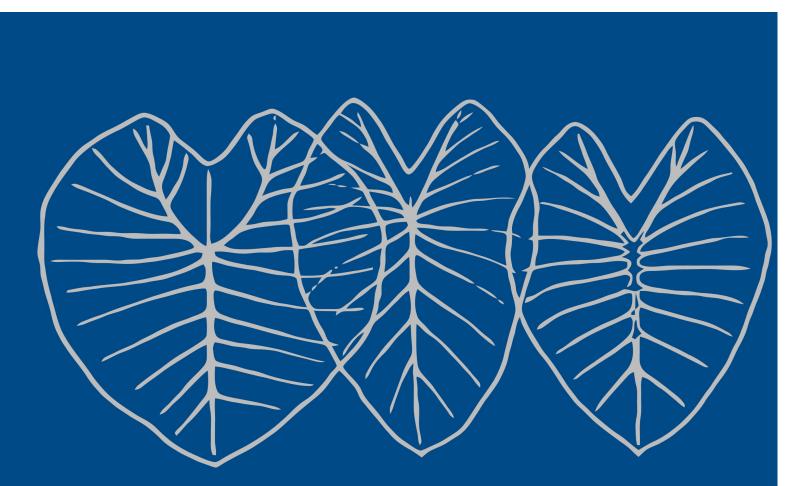
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