Complementizers with attitude*

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1. Introduction

The traditional analysis of the semantics of attitude verbs is that they relate a proposition and an individual, and assert that the proposition is true in all of the possible worlds compatible with the individual's attitude (Hintikka 1969). Typically, embedded clauses are taken to denote propositions, and they may directly compose with attitude verbs, as in (1).

(1) a. $[\![\text{believe}]\!] = \lambda p_{\langle s,t\rangle}.\lambda x_e.\lambda w_s.\forall w'$ compatible with x's beliefs at $w : p(w') = 1$
b. $[\![\text{that Şana is smart}]\!] = \lambda w_s.$Şana is smart at w
c. $[\![\text{believe}]\!]([\![\text{that Şana is smart}]\!]) =$
$\lambda x_e.\lambda w_s.\forall w'$ compatible with x's beliefs at w : Şana is smart at w'

The syntactic and semantic relationship between attitude verbs and clauses or propositions is thought, in fact, to be less direct. One recent move has been to sever attitude verbs from propositional arguments (Kratzer 2006, 2016, Anand & Hacquard 2008, Moulton 2009, a.o.). Another has been to analyze attitudes in a neo-Davidsonian, eventuality based framework (Hacquard 2006, a.o.). These two hypotheses give rise to a view where attitude verbs are not so different from transitive and intransitive event predicates like *love* or *run*. Although technical implementations might vary, illustrative lexical entries are given in (2).

(2) a. $[\![\text{love/believe}]\!] = \lambda x_e.\lambda e_v.love/believe(x,e)$
b. $[\![\text{run/scream}]\!] = \lambda e_v.run/scream(e)$

Such lexical entries do not make reference to propositions, and they do not involve quantification over possible worlds, our baseline analysis for attitude reports. The question then is how to put together attitude verbs and propositions in such a way that the assertion in

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(1c) is restored. We argue here for the view that complementizers mediate this relationship, or, in the words of Kratzer (2006), for "more action for complementizers."

This study focuses on the Laz complementizers *ya* and *na*.[1] *Na* is an all-purpose complementizer akin to *that*. Ex. (3a), in pseudo-Laz, shows that *na* is compatible with a variety of attitude verbs, manner of speech verbs excluded. In contrast, the distribution of *ya* is puzzling. It either occurs bare, or accompanied by the conjunction *do*. Ex. (3b) shows that bare *ya* is compatible only with the attitude verbs *t'k'*, 'say,' *ts'*, 'tell,' and *iduşun*, 'think.' Bare *ya* also occurs in root clauses, as in (3c). On the other hand, in (3d), *ya do* occurs with manner of speech verbs like *k'i*, 'scream,' and with VPs that do not contain attitude verbs at all, e.g., 'fall in love.' Exx. (3b) and (3d) imply that *ya*'s prejacent is uttered or thought.

(3) a. Bill said / told me / thinks / believes / knows / *screamed [NA Mary is smart]
b. Bill said / told me / thinks / *believes / *knows / *screamed [YA Mary is smart]
c. Bill [YA Mary is smart]
d. Bill screamed / fell in love [YA *(DO) Mary is smart]

Our core hypothesis is that clauses of the form '*ya p*' introduce an event predicate true of events of uttering or thinking *p*. Appealing to different standard rules of composition, we derive the distribution pattern in (3). *Ya*-clauses may be *intersected* with attitude verbs, resulting in the selection restrictions in (3b). Alternatively, a *ya*-clause may be *existentially closed*, resulting in (3c). Or, taking *do* to introduce a sum operator, an event in the extension of the *ya*-clause may be *summed* with events contributed by other VPs, resulting in (3d).

2. The data

The Laz proclitic complementizer *na* introduces clauses under attitude verbs that are not manner of speech verbs, in (4a), and it introduces relative clauses, in (4b).

(4) a. [Şana noseri **na**-on] {t'k'u, mits'u, iduşunams, aceren, uşk'un, *k'iu}
Şana smart NA-is said told.me thinks believes knows screamed
'S/he said/told me/thinks/believes/knows/*screamed that Şana is smart.'

b. [Ma **na**-vixap'ari] bere opşa noseri on
I NA-spoke child very smart is
'The child that I spoke with is very smart.'

The complementizer that we are most interested in is *ya*. Clauses headed by *ya* exhibit three intriguing properties. First, as illustrated in (5), they only seem to compose directly

[1] Laz is an endangered South Caucasian language spoken primarily in Turkey (Öztürk & Pöchtrager 2011). The data reported in this paper represents the Pazar (At'ina) dialect of Laz and comes from personal fieldwork. We are grateful to our Laz language consultant, İsmail Bucaklişi. Some notes on Laz orthography: ş stands for [ʃ], ç for [tʃ], ğ for [ɣ] c for [dʒ], x for [x], and the apostrophe ' represents an ejective consonant. Laz has a third complementizer, *şo*, that heads clauses that are selected by speech predicates that are in the subjunctive and the imperative. We must set *şo* aside in this paper.

with *t'k'*, 'say,' *ts'*, 'tell,' and *iduşun*, 'think.' They are ungrammatical with other belief verbs like *cer*, 'believe' or *şk'*, 'know,' and with manner of speech verbs like *k'i*, 'scream.'[2]

(5) [Şana noseri on **ya**] {t'k'u, mits'u, iduşunams, *aceren, *uşk'un, *k'iu}
Şana smart is YA said told.me thinks believes knows screamed
'S/he {said, told me, thinks, *believes, *knows, *screamed} that Şana is smart.'

Second, *ya*-clauses may occur with manner of speech verbs, as in (6a), but they require an overt conjunction *do*. (*Do* conjoins other syntactic categories as well in Laz.) It is also possible to compose *ya*-clauses in this way with VPs not headed by attitude verbs, in (6b). In a pattern reminiscent of unselected clauses in Japanese, Korean, and Turkish (Kim & Tomioka 2014, Özyıldız 2018), such sentences are judged true if and only if the VP event co-occurs with an event of uttering or thinking the clause introduced by *ya*.

(6) a. Tanurak [Şana noseri on **ya**] *(**do**) k'iu
Tanura.ERG Şana smart is YA and screamed
'Tanura screamed that Şana is smart.'

b. Artek [sebap'-on **ya**] *(**do**) fuk'aras para niçams
Arte.ERG good.deed-is YA and poor money gives
'Arte gives money to the poor, {saying, thinking} that it's a good deed.'

Finally, *ya* clauses occur bare. Examples in (7) have no attitude verb on the surface. Yet, they are grammatical, and respectively interpreted as a speech and a thought report.

(7) a. Tanurak [Şana noseri on **ya**]
Tanura.ERG Şana smart is YA
'Tanura said that Şana is smart.'

b. Artek [noseri vore **ya**]. Ama opşa oncğoryari on, va it'urs.
Arte.ERG smart be.1SG YA but very shy is NEG says
'Arte$_1$ thinks that he$_1$ is smart. But he is very shy and doesn't say it.'
[Consultant's comment: *Arte doesn't have to say he is smart, we can understand from his behavior etc. that he thinks he is smart.*]

The main goal of this paper is to account for the distribution and interpretation of *ya*: Why is *ya* picky about the verbs that it directly composes with? Why must the conjunction *do* be expressed when *ya*-clauses compose with manner of speech verbs and VPs that are not headed by attitude verbs? Last, how are *ya*-clauses able to stand alone in root contexts?

These questions are answered with the hypothesis that *ya*-clauses introduce a predicate of events, formalized as the union of two transitive event predicates: one of uttering, and one of thinking something. The intuition here is that natural languages lexicalize event

[2]There are two other facts about *ya* that we cannot explore further here: (i) indexicals in its complement shift obligatorily, (ii) it has an allomorph *ma* that shows up when the subject of the embedding verb is first person singular. See Demirok & Öztürk (2015) for discussion.

predicates whose domain consists of events that involve linguistic production, be it physical or mental. Such event predicates compose by means of (generalized) predicate modification with the transitive attitude verbs *say*, *tell* and *think*. This accounts for (5). *Ya*-clauses may also compose with certain predicates via event summation (i.e., as opposed to intersection). We take the conjunction *do* to be the overt manifestation of this semantic operation. This accounts for (6). Finally, the hypothesis that *ya*-clauses are interpreted as event predicates leads us to expect that they should be able to stand alone, without composing (via intersection or summation) with other predicates at all. And this is what we find in (7).

3. *Ya*-clauses have VP meanings

In this section, we argue that the truth conditions of sentences where *ya*-clauses occur unembedded and ones where they occur with non-attitude VPs reveal the semantics of *ya*.

First, examples like (6b) and (7) are judged true in contexts where *ya*'s prejacent is an utterance or a thought, but not, for example, a desire. This indicates that *ya* introduces an attitude, formalized in section 4. While both utterance and thought interpretations are likely available through the semantics, the pragmatics constrains which is understood.

Second, both examples have an ergative DP interpreted as the author of the attitude. Bare *ya*-clauses may in addition host manner or time adverbs like *uneneli uneneli*, 'silently,' and *ğoma*, 'yesterday.' The relevant interpretation is one where they modify the attitude.

(8) Artek **ğoma** **uneneli uneneli** [CP vinçirare **ya**].
Arte.ERG yesterday silent silent I.will.swim YA
'**Yesterday**, Arte **silently** said that he would swim.'

The truth conditions of such sentences and the availability of manner adverb modification, suggest that *ya*-clauses must minimally deliver VP meanings. The ergative argument and the temporal adverb reveal additional structure on top of *ya*-clauses construed as VPs. The exploration of these higher clausal regions, we must leave for further research.[3]

An alternative hypothesis about sentences like (8) is that they might contain an elided, yet interpreted attitude verb. The examples in (9), modified from (6b) and (7a), include attitude verbs that indicate the locus and the material affected by the hypothesized elision.

(9) a. Artek [sebap'-on **ya**] (**iduşunams**) do fuk'aras para niçams
Arte.ERG good.deed-is YA thinks and poor money gives
'Arte gives money to the poor, thinking that it's a good deed.'

b. Tanurak [Şana noseri on **ya**] (**t'k'u**)
Tanura.ERG Şana smart is YA says
'Tanura said that Şana is smart.'

[3]Recently, Spadine (2018) has argued that a Tigrinya morpheme *ʔil-*, whose distribution and interpretation are similar to *ya*, spells out a perspectival head in the clausal left periphery. However, she shows that adverbs in bare *ʔil-* clauses do not modify the attitude introduced by the complementizer. This suggests that unlike bare *ya*-clauses, *ʔil*-clauses do not introduce an event predicate.

Our argument against this hypothesis comes from three differences between bare *ya*-clauses and ones introduced by an attitude verb, unexpected from the perspective of ellipsis.

First, (10) shows that attitude verbs are obligatory with the complementizer *na*. The operation, then, that allows for verbs in (9) to go missing has to be specific to *ya*.

(10) Tanurak [CP Şana noseri **na**-on] *(**t'k'u / iduşunams**)
Tanura.ERG Şana smart NA-is said thinks
'Tanura said/thinks that Şana is smart.'

Second, a comparison between sentences of the form [[CP ya] do VP] and the form [[[CP ya] t'k'u/iduşunams] do VP] suggests that when an attitude verb is missing, the event introduced by the non-attitude VP is necessarily understood to be simultaneous with an event of uterring or thinking. When the verb is present, however, the two events may occupy distinct time intervals. This means that when the two events are *forced* to occupy distinct intervals, as in (11) due to 'first… later…,' the *ya*-clause cannot occur bare. If the verbless strings did arise by ellipsis, this difference in interpretation is unexpected.

(11) Şanak tsoxle [CP vizgalare **ya**] *(**t'k'u**) do uk'ule uk'ap'u
Şana.ERG first 1.will.walk YA said and later ran
'Şana *first* said that she would walk, and she *later* ran.'

Third, (12a) suggests that *wh*-extraction is possible out of a *ya*-clause only if an attitude verb is present. We hypothesize that this is a structural effect: a CP is an island for extraction unless it complements a verb. Although this effect requires further research, some alternative possibilities may already be dismissed. First, under an ellipsis story, one might argue that an overt verb is necessary to spell out a (null) interrogative morpheme or to realize question intonation. Then, this hypothetical ellipsis operation should make matrix questions ungrammatical as well. This expectation is not borne out, as shown in (12b).

(12) a. Artek [CP nak vore **ya**] *(**t'k'u**)
Arte.ERG where I.am YA said
'Where did Arte$_1$ say that he$_1$ was *t*?'

b. Mik [CP Mp'olis vore **ya**] (t'k'u)
who.ERG Istanbul.LOC I.am YA said
'Who$_1$ said that they$_1$ were in Istanbul?'

Another alternative explanation for the asymmetry above is that bare *ya*-clauses are obligatorily quoted. Indeed, quotes are standardly thought to be opaque domains for extraction: **What did Mary say: "John bought* t*"*. However, example (13)—inspired from Shklovsky & Sudo (2013)—uses indexical shifting to show that *ya*-clauses are not necessarily quoted. With or without the verb *t'k'u*, this sentence is a felicitous and true report of a situation where each child says "*I* am smart." Note, however, that the embedded clause

contains a first person plural. If the *ya*-clause were necessarily quoted, the sentence would be false. Hence, we reject this possibility, too, as an explanation of the asymmetry in (12).

(13) Bere-pe-k [CP noseri v-ore-t **ya**] (t'k'u)
child-PL-ERG smart 1-be-PL YA said
The children said that they (lit. "we") were smart.

Given these facts regarding bare and conjoined *ya*-clauses, we propose that *ya*-clauses that occur without a verb never involve attitude verb ellipsis. We *do*, however, have interpretive and structural evidence (i.e., VP conjunction, argument structure, co-occurrence with manner and temporal modifiers) that *ya*-clauses deliver VP meanings.

4. Proposal: Deriving the distribution of *ya*-clauses

We assume that attitude verbs do not directly combine with propositions. Rather, transitive attitude verbs take an individual as their first argument, in (14a). This individual is associated with *propositional content*, like *the rumor/lie (that it's raining)*. Complementizers are functions from propositions to predicates of contentful individuals, as in (14b) and (14c). The first piece of our proposal is that *na*-clauses are equivalent to English *that*-clauses.

(14) a. $[\![\text{think}]\!] = \lambda x_e.\lambda e_v.think(x,e)$
b. $[\![\text{na}]\!] = [\![\text{that}]\!] = \lambda p_{\langle s,t\rangle}.\lambda x_e.content(x) = \{w : p(w) = 1\}$
c. $[\![\text{that Mary is smart}]\!] = \lambda x_e.content(x) = \{w : \text{Mary is smart at } w\}$

Function Application cannot compose (14b) and (14c) due to a type mismatch. Kratzer (2006) proposes to use Restrict (Chung & Ladusaw 2004), as in (15a). The x argument is existentially closed within the VP (Diesing 1992), yielding the denotation in (15b).

(15) a. Restrict($[\![\text{think}]\!]$, $[\![\text{that Mary is smart}]\!]$) =
$\lambda x_e.\lambda e_v.think(x,e)$ & $content(x) = \{w : \text{Mary is smart at } w\}$
b. $\lambda e_v.\exists x : think(x,e)$ & $content(x) = \{w : \text{Mary is smart at } w\}$

In section 3, we have argued that *ya*-clauses have VP meanings. Our hypothesis is that they introduce a predicate of events ranging over utterings and thinkings. This predicate is labeled S ∪ T for "the union of speech and thought," and defined in (16). These form a natural class in that they involve *linguistic production*, which may be instantiated physically (utterings), or mentally (thinkings).[4] We must also commit to the view that thinking events, involving *inner speech*, are distinct from, e.g., belief states.[5]

[4]Typically, utterances are physical, while thoughts are mental. But, one also *says to oneself* or *thinks out loud*. This might be a manifestation of the hypothesized class of linguistic productions. See also Özyıldız, Major, & Maier (2018) for their analysis of the Turkish so-called *say* derived complementizer *diye*.

[5]Morphological evidence in Laz supports this distinction. The verb for *think* requires an ergative subject (like agentive predicates e.g. *run*), but the verb for *believe* requires a dative subject (like psychological pred-

(16) $[\![\text{S} \cup \text{T}]\!] = [\![\text{say}]\!] \cup [\![\text{think}]\!] = \{\langle x, e\rangle : e \text{ is a speaking of } x \text{ or a thinking of } x \text{ event}\}$

A second component of *ya*'s meaning specifies the propositional content of an individual, as seen in (17a). *Ya* is composed with the proposition that Şana is smart in (17b), resulting in a transitive event predicate of uttering or thinking something

(17) a. $[\![\text{ya}]\!] = \lambda p_{\langle s,t\rangle}.\lambda x_e.\lambda e_v.S \cup T(x,e)$ & $content(x) = p$
b. $[\![\text{yaP}]\!] = \lambda x_e.\lambda e_v.S \cup T(x,e)$ & $content(x) = \{w : \text{Şana is smart at } w\}$

4.1 Bare *ya*-clauses

We first turn to root *ya*-clauses, as in (7). Here, we propose that *ya* serves as the main verb in the structure. Its individual argument is existentially closed at the VP, and an author argument is introduced at the *v*P level. The availability of the *v*P follows from the presence of the ergative DP *Tanura* in the structure (Woolford 2006). This results in the truth conditions in (18). There is no particular challenge, given standard semantic rules, for deriving sentence meanings out of *ya*-clauses. Yet, many questions remain as to the syntactic and semantic properties of these sentences, which require further research.

(18) a. [$_{v\text{P}}$ Tanura-ERG [*v* [$_{\text{VP}}$ $\exists$ [ya [Şana smart is]]]]]
b. $[\![(18a)]\!] = \exists e \exists x : S \cup T(e,x)$ & $content(x) = \{w : \text{Şana is smart in } w\}$

4.2 *Ya*-clauses with transitive attitude verbs: Predicate modification

Second, we turn to the observation from (5) that *ya*-clauses only directly compose with the attitude verbs *t'k'*, 'say,' *ts'*, 'tell,' and *iduşun*, 'think.' Taking lexical entries like (14a) for transitive attitude verbs and (17b) for the denotation of *ya*-clauses, which are objects are of the same semantic type $\langle e, \langle v, t\rangle\rangle$, we propose that they compose via Predicate Modification.

(19) Predicate Modification($[\![\text{t'k'}]\!]$, $[\![\text{Şana noseri on ya}]\!]$)
$= \lambda x_e.\lambda e_v.say(e,x)$ & $S \cup T(e,x)$ & $content(x) = \{w : \text{Şana is smart in } w\}$
$= \lambda x_e.\lambda e_v.say(e,x)$ & $content(x) = \{w : \text{Şana is smart in } w\}$

A set of utterance events is a subset of a set of utterance or thought events. Thus, the conjunction in (19) is equivalent to a transitive event predicate of uttering something with the content "Şana is smart." Composing *ya*-clauses with 'tell' or 'think' yield the same result.[6] That is, the *ya*-clause introduces an underspecified linguistic production event, which is specified by the overt attitude verb. On the other hand, observing that the S $\cup$ T predicate ranges over no event that also falls within the extension of *cer*, 'believe,' or *şk'*, 'know,' the operation in (19) is predicted to yield a contradiction with these verbs. In other words,

icates, e.g. *love*). In terms of the Aktionsart-conditioned imperfective allomorphy, the verb for *think* patterns like an activity predicate whereas *believe*, like a stative predicate (Öztürk & Erguvanlı-Taylan 2017).

[6]Communication verbs like 'announce,' *anons t'k'*, are judged to be compatible both with *ya* and *ya do*.

no eventuality is both an utterance or thought and a knowing or a believing. (Composition with manner of speech predicates like *k'i*, 'scream,' is given a different treatment below.)

Composing attitude verbs with *na*-clauses via Restrict, as in (15a), gives rise to truth conditions equivalent to ones derived with *ya*-clauses based on (19). *Na*-clauses do not contribute event predicates, and may in principle compose with any transitive attitude verb.[7]

(20) Restrict(⟦t'k'/şk'⟧, ⟦Şana noseri na-on⟧)
$= \lambda x.\lambda e.say/know(e,x)$ & $content(x) = \{w : \text{Şana is smart in } w\}$

4.3 *Ya do* clauses: Event summation

Example (21) illustrates *ya*-clauses with a manner of speech verb and a VP not headed by an attitude verb. The conjunction *do* is obligatory in both cases, linking the clause with the manner of speech verb or non-attitude VP. *Na*-clauses are not possible alternatives here.

(21) a. Tanurak Şana noseri {on **ya** *(**do**), *na-on (do)} k'iu
Tanura.ERG Şana smart is YA and NA-is and screamed
'Tanura screamed that Şana is smart.'

b. Artek [sebap'-on **ya**] *(**do**) fuk'aras para niçams
Arte.ERG good.deed-is YA and poor money gives
'Arte gives money to the poor, {saying, thinking} that it's a good deed.'

Following Kratzer (2016), we take manner of speech verbs like 'scream' to be intransitive. (See Zwicky 1971 for a detailed investigation of manner of speech verbs.) In (21b), the *ya*-clause combines with a VP where the available argument slots are filled—also an intransitive. Moreover, giving money to the poor is not an event typically associated with an attitude or propositional content. As a result, the attitude does not seem to come from the material to the right of *do*, and the *ya*-clause needs to be composed with this material.

Like previously, the attitude comes from the S ∪ T predicate in the semantics of *ya*. Regarding composition, *do* is analyzed as the sum formation operator defined in (22a): It takes two event predicates P and Q, which it existentially closes, and returns an event predicate holding of events that are the sum of the P and Q events.[8] The truth conditions of (21a) are in (22b). Note that *ya*'s individual argument is existentially closed, like in the derivation of bare *ya*-clauses above.

(22) a. $[\![\text{do}]\!] = \lambda P_{\langle v,t\rangle}.\lambda Q_{\langle v,t\rangle}.\lambda e_v.\exists e_1 \exists e_2 : e = e_1 \oplus e_2$ & $P(e_1)$ & $Q(e_2)$

b. $[\![(21a)]\!] = \exists e \exists e_1 \exists e_2 \exists x : e = e_1 \oplus e_2$ & $scream(e_1)$ & $S \cup T(e,x)$ &
$content(x) = \{w : \text{Şana is smart at } w\}$ & $agent(e) = tanura$

[7] One difference between the *na*- and *ya*-clauses is that indexical shift is impossible with the former, obligatory with the latter. Existing accounts capture such differences and may be ported to the case at hand.

[8] How best to form such complex events requires further investigation. We use mereological sums here. Özyıldız, Major, & Maier (2018) prefer events that are not summed, but 'directly causally linked.'

Truth conditions for (21b) are obtained by substituting 'scream' with 'give money to the poor' and 'Şana is smart' with 'it is a good deed.'

The idea that *do* may contribute sum formation is independetly supported by examples like (23), whose analysis in terms of intersection is not straightforward, if at all possible.

(23) Şana **do** Arte-k ok'i-coxaman-**an**
Şana and Arte-ERG RECIP-call.IMPF-PL
'Şana and Arte are calling each other.'

In English, intransitive manner of speech verbs combine with (what appear to be) clausal complements too, e.g., *Bill screamed that it was raining*. For this, Kratzer (2016) proposes that *that*-clauses can be coerced into including an operator labeled 'say,' as in (24a). This operator contributes an utterance event, then identified with the manner of speech verb's event argument, in (24b). Predicate Modification is used for concreteness.

(24) a. [that it is raining] $\rightarrow_{\text{say-coercion}}$ [say] [that it is raining]
$[\![\text{(say) that it is raining}]\!] = \lambda e.\exists x : say(e,x)\ \&\ content(x) = \{w : \text{it rains at } w\}$

b. Predicate Modification($[\![\text{scream}]\!]$, $[\![\text{(say) that it is raining}]\!]$) =
$\lambda e.\exists x : [say(x,e)\ \&\ scream(e)\ \&\ content(x) = \{w : \text{it rains at } w\}]$

If say-coercion is available in a language, one question is how to limit the distribution of *that*-clauses. That is, what makes things like **Bill gave money to the poor that it's a good deed* ungrammatical, with the intended meaning of *Bill gave money to the poor and said/saying that it was a good deed*? Our reading of Kratzer is that screams and utterances are events that can be identified together, but money givings and utterances cannot.

Event identification and our alternative event summation approaches are both committed to the attitude being contributed by the embedded clause. They differ in how clauses compose with intransitive predicates. While event identification might be an available strategy in English, we believe that an event summation strategy is active in Laz. Indeed, say-coercion and event identification lead to expectations that are unfulfilled in our data: First, clauses should not be able to compose with non-attitude VPs. Second, *na*-clauses should be able to compose with manner of speech predicates. Finally, event summation offers not only an account for cases like (21b), but also a uniform treatment across (21b) and (21a).

Finally, a non-trivial problem for event summation (which we thank Danny Fox for pointing out) is that it predicts that example (25), with a plural subject, should be true in a context where Arte thinks that Şana is smart and, independently, where Tanura screams. Yet, these are not possible truth conditions for the sentence, which require Arte and Tanura to both scream that Şana is smart.

(25) Tanura **do** Arte-k [CP Şana noseri on **ya**] **do** k'i-es
Tanura and Arte.ERG Şana smart is YA and scream-3PL.PST
'Tanura and Arte screamed that Şana is smart.'

This problem arises for the same reason that sentences like *John and Mary sang and danced* are true in contexts where only John sang, and only Mary danced (Lasersohn 1995). At this stage, we must observe that this problem disappears if (25) involves conjunction reduction and that the plural subject is interpreted in both conjuncts. Whether this can be shown to be the case is left for further research.

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