Complementizers in Laz are attitude sensitive

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Introduction: In Laz, an endangered South Caucasian language spoken in Turkey, finite embedded clauses can be introduced by different subordinators. We focus on two of these subordinators, NA and YA. We argue that the proclitic complementizer NA is a general purpose C° whereas the complementizer YA spells out (i) an *indexical shift* complementizer in the spirit of Sundaresan (2018) (cf. Anand and Nevins, 2004; Anand 2006; Sudo 2010; Deal 2017, a.o.) and (ii) a [say] predicate (cf. Kratzer (2016)) that contributes an eventuality compatible with actual speech events or thoughts whose theme is the content of the reported attitude (Kratzer, 2006; Moulton, 2015).

Data Points #1: YA **forces indexical shifting**. The proclitic NA is a general purpose C^o. It introduces embedded declaratives and interrogatives under a variety of verbs, and forms relative clauses (Öztürk and Pöchtrager, 2011). Indexical shift is impossible under NA, (1).

(1) Si [CP ma bere-k na=m-dzir-u] {iduşunam | t'k'vi | gişk'un}
2SG [1SG child-ERG NA=1-see-3SG.PST] {think.2SG | said.2SG | know.2SG}
'You1 {think | said | know} that the child saw me/*you1.'

The distribution of the complementizer YA is restricted to the predicates 'say,' 'tell' and 'think'. Indexical shift is obligatory under YA. As shown by the ability of 'who' in (2) to take matrix scope, YA-clauses are not quotations. We take the contrast in (1)/(2) to indicate that YA is (in part) the lexicalization of an indexical shifting operator.

(2) Arte-k [CP ma mi-k m-dzir-u ya] {iduşunams | t'k'u} Arte-ERG [1SG who-ERG 1-see-3SG.PST YA] {think.3SG | said.3SG}
'Who do/did Arte₁ {think | say} saw him₁/*me.'

Data Points #2: YA **introduces a [say] event**. First, YA clauses can appear without a selecting verb, while NA clauses cannot (3). Bare YA-clauses assert the existence of a saying (3a) or a thinking (3b) event, whose propositional content is denoted by the complement of YA.

- (3) a. Arte-k ma noseri vore ya. Mteli-s apsaxinu. Arte-ERG 1SG smart be.1SG YA everybody-DAT found.strange 'Arte₁ said that he₁ is smart. Everybody found it strange.'
 b. Arte-k ma noseri vore ya. Ama oncğoryari on, va it'urs. Arte-ERG 1SG smart be.1SG YA but shy be.3SG NEG says 'Arte₁ thinks that he₁ is smart. But he is shy and doesn't say it.'
 - c. *Arte-k *ma* noseri **na=**vore Arte-ERG 1SG smart NA-be.1SG Intended: 'Arte said/thinks/etc. that I am smart.'

Second, YA clauses can be conjoined with other VPs via DO 'and,' as shown in (4a) and (4b). In both sentences, YA contributes an eventuality that is distinct from that of the second predicate.

- (4) a. Tanura-k para me-m-i-xir-es ya *(**do**) k'i-u Tanura-ERG money PV-1SG-APPL-steal-3PL.PST YA and scream-3SG.PST 'Tanura screamed, (saying) "They stole my money.""
 - b. Tanura-k para mo-v-o-g-are ya *(**do**) opşa içaliş-am-s Tanura-ERG money PV-1SG-PRV-earn-FUT YA and much work-IMPF-3SG 'Tanura works a lot, (thinking) "I will earn money."

DO is a conjunctive morpheme that can conjoin VPs elsewhere (5). Conjoining a YA clause with another VP via DO requires that YA's complement be interpreted as an attitude content, as shown in (6). That is, YA

DO retains its compositional sense and is not a grammaticalized causal linker.

(5)	Si içalişam do mogam	(6) #Mç'imu ya do viğvari		
	You work.2SG and earn.2SG	it.rained YA and I.got.wet		
	'You work and earn.'	a. #'I got wet thinking it rained.'		
		b. Unavailable, intended: 'I got wet because it rained.'		

There is a possibility that bare YA clauses as in (3a) and (3b) and conjoined YA clauses as in (4) are derived by eliding a verb (i.e. say or think) above YA [by some very specialized and restricted mechanism that needs to be identified]. We do not adopt this possibility. Rather, we argue that the morpheme YA is not only a complementizer but also introduces an event, which we take to be a speech event [say] that subsumes thought as 'inner speech'. This contrasts with 'believe' which cannot compose with YA (7). (cf. Kratzer (2016) on manner of speech predicates).

(7)	a. *Arte-s	noseri vore ya acere	en	b.	Arte-s	noseri	na=on	aceren
	Arte-DAT	smart I.am YA belie	ves		Arte-DAT	smart	NA=he.is	believes
	Int: 'Arte	believes that he is sr	nart.'		'Arte beli	eves th	at he is sn	nart.'

There is some suggestive evidence against the ellipsis option from asymmetries between YA clauses directly followed by a verb vs. not followed by a verb. For example, an overt verb is required when there is wh-extraction out of the YA clause (8a) or when there is a higher modal element (8b).

(8) a. Arte-k nak vort'i ya *(t'k'u) Arte-ERG where be.1SG.PST YA said 'Where did Arte₁ say that he₁ was?'
b. Şana-s nana-muşi-s si malimben ya *(azit'en) Sana-DAT mother-3SG.POS-DAT you I.love YA can.say

'Şana can tell her mom 'I love you'.'

[DAT is due to the modal.]

Proposal: Within a doubly-indexed system (Stalnaker 1978), attitude Vs are modeled as predicates of events (Hacquard 2006, Kratzer 2006, a.o.), and complementizers introduce modal quantification, as in (9b)/(9c). Both specify that the content of a contentful individual x (what is said/thought) is the CP. In addition, YA introduces an event of 'saying' x, and binds the context parameter against which the CP is evaluated (à la Anand & Nevins 2004, a.o.). This step accounts for obligatory indexical shifting under YA.

(9) a. $\llbracket \mathbf{t'k'v} \rrbracket^{c,i} = \llbracket \mathbf{say} \rrbracket^{c,i} = \lambda x_{\text{content}} \cdot \lambda e_v \cdot \mathbf{say}(e, x)$ $\llbracket \mathbf{ma} \rrbracket^{c,i} = \llbracket \mathbf{I} \rrbracket^{c,i} = \operatorname{AUTHOR}(c)$ b. $\llbracket \operatorname{NA} \mathbf{CP} \rrbracket^{c,i} = \lambda x_{\text{content}} \cdot \forall i' \in \operatorname{CON}(x_c) \colon \llbracket \mathbf{CP} \rrbracket^{c,i'} = 1$ c. $\llbracket \operatorname{YA} \mathbf{CP} \rrbracket^{c,i} = \lambda x_{\text{content}} \cdot \lambda e_v \cdot \mathbf{say}(e, x) \land \forall i' \in \operatorname{CON}(x) : \llbracket \mathbf{CP} \rrbracket^{i',i'} = 1$

NA CPs compose with transitive attitude verbs via Restrict, in (10a), and YA CPs via predicate modification, in (10b) (Chung & Ladusaw 2001, Heim & Kratzer 1998). External arguments are introduced by v à la Kratzer (1996). The theme arguments in (10) are existentially closed at VP (Moulton 2015), and the event arguments at AspP (Kratzer 1998, Hacquard 2006).

(10) a. Restrict([t'k'v], [NA CP]) = $\lambda x \cdot \lambda e \cdot say(e)(x) \land \forall i' \in CON(x) : [CP]^{c,i'} = 1$ b. Predicate-Modification([t'k'v], [YA CP]) = $\lambda x \cdot \lambda e \cdot say(e)(x) \land \forall i' \in CON(x) : [CP]^{i',i'} = 1$

The operation in (10b) contains redundancy: The saying events contributed by YA and by the verb "t'k'v" are identified, such that existential closure of the arguments in (9c) and in (10b) yield an equivalent result. This, we propose, accounts for the possibility of expressing a matrix verb with bare YA, as well as omitting one. We believe that the choice between the two options has syntactic effects and correlates with asymmetries like in (8). Finally, about the conjunction of a YA clause with a VP as in (4), we assume that DO sums two events à la Lasersohn (1995), forming a complex event whose external argument is again introduced by v.