

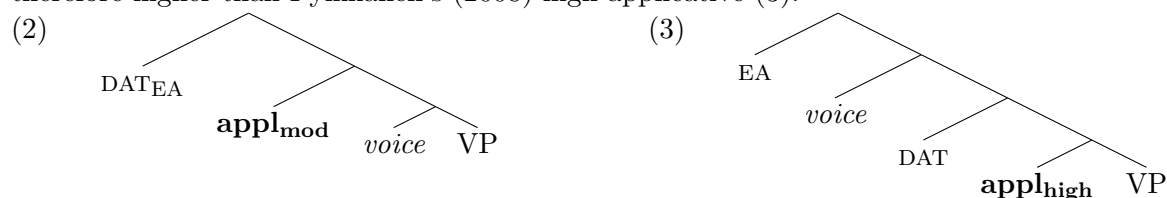
## A Modal Approach to Dative Subjects in Laz

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**Introduction:** As shown by the morphosyntactic contrast between sentences with a Dative external argument (1a) and their canonical counterparts with an Ergative external argument (1b), Laz (South Caucasian) exhibits an instance of oblique case marking with semantic consequences. In this paper, I show that the morphosyntax in (1a) is the spell-out of an applicative structure that incorporates a circumstantial possibility modal (Kratzer, 1981, 1991). The proposed analysis adds *modal applicatives* to Pykkänen’s (2008) inventory of low and high applicatives. Moreover, the modal approach pursued in this paper is able to accommodate plausible answers to the cross-linguistically familiar challenges concerning modals, namely *actuality entailments* (Bhatt, 1999) and *variable modal force* (Deal, 2011), which will be shown to co-exist in Laz.

- (1) a. Arte-s çxombi a-şk’om-u                      b. Arte-k çxombi  $\emptyset$ -şk’om-u  
 Arte-DAT fish.NOM APPL-eat-PST                      Arte-ERG fish.NOM  $\emptyset$ -eat-PST  
 ‘Arte was able to eat the fish.’                      ‘Arte ate the fish.’

**Syntactic Composition:** I propose (2) for Dative Subject Constructions (DSC), like (1a). In Laz, the  $\text{appl}_{\text{mod}}$  combines with a VoiceP. The complement of  $\text{appl}_{\text{mod}}$  is a predicate of events but one whose agent variable is still unsaturated. The Dative NP is merged as the specifier of  $\text{appl}_{\text{mod}}$  and saturates this agent variable (cf. semantic control *a la* Wurmbrand 2003). The  $\text{appl}_{\text{mod}}$  is therefore higher than Pykkänen’s (2008) high applicative (3).



The applicative prefix [a-] is not a unique exponent of the proposed modal but shows up in other applicative structures, as well. Notice that Pykkänen’s high applicative head is also spelled-out by [a-], e.g. in impersonal passive sentences that feature a benefactive DAT, exemplified in (4). However, when the spec-VoiceP is not empty, the applicative prefix is not [a-], but [u-] (5). Hence, [a-] can spell-out an applicative head iff the specifier of the voiceP is empty. (This condition on the allomorphy will be shown to respect the syntactic contiguity of the relevant heads.)

- (4) Şana-s a-cib-u                      (5) Arte-k Şana-s u-cib-u  
 Şana-DAT APPL-cook-PST                      Arte-ERG Şana-DAT APPL-cook-PST  
 ‘(Someone) cooked for Şana.’                      ‘Arte cooked for Şana.’

I assume, following Kratzer (2005), Deal (2009), a.o., that causativizers introduce external arguments and hence spell-out Kratzer’s *voice* head. Accordingly, in the sentence pair below that illustrates a causativity alternation in Laz, the causativizer [-in] is the overt exponent of *voice*.

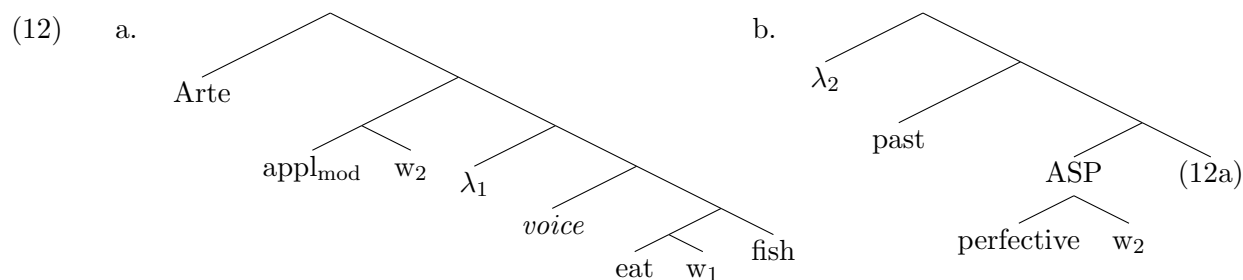
- (6) Ini do-ndğul-u                      (7) Ali-k ini do-ndğul-in-u  
 ice PV-melt-PST                      Ali-ERG ice PV-melt-CAUS-PST  
 ‘The ice melted.’                      ‘Ali melted the ice.’

Note that the DSC example in (8) has to be built on the base-form that has [-in] as in (7). I take this to suggest that *voice* is syntactically present in DSC as in (2). This ensures that the DAT NP in DSC is always the EA, correctly precluding sentences like (9) where the DAT is not the EA.

- (8) Ali-s ini dv-a-ndğul-\*(in)-u                      (9) \*Ini-s dv-a-ndğul-u  
 Ali-DAT ice PV-APPL-melt-CAUS-PST                      ice-DAT PV-APPL-melt-PST  
 ‘Ali was able to melt the ice.’                      Int: ‘The ice was able to melt.’

**Semantic Composition:** The  $\text{appl}_{\text{mod}}$  mediates the relationship between the  $\text{DAT}_{\text{EA}}$  and the *voice* head. But this is not all it does. If it were, (1a) and (1b) would be semantically equivalent, which they will be shown not to be. I propose that  $\text{appl}_{\text{mod}}$  is the locus of the modal semantics, introducing a **circumstantial possibility modal**. In (1a), we have a perfective past, which in combination with  $\text{appl}_{\text{mod}}$  (10) yields an actuality entailment (Bhatt 1999)<sup>1</sup>. For concreteness, I use Hacquard’s (2009) composition<sup>2</sup> to derive the actuality entailment. Accordingly, we generate the truth conditions in (11) for the LF in (12). (Note that the imperfective aspect removes the actuality entailment as shown in (14), as predicted by its further modal contribution.)

- (10)  $[[\text{appl}_{\text{mod}}]] = \lambda w. \lambda R_{\langle s, \langle e, vt \rangle \rangle}. \lambda x. \lambda v. \exists w' \text{ compatible with the circumstances in } w \text{ s.t. } R(w')(x)(v) = 1$  (11) There is a **past event e in w\*** and there is a world w’ circumstantially accessible from w\* s.t. that e is an event of Arte eating the fish in w’



The modal approach to DSC presents another familiar challenge. DSC sentences like (14) and (13) exhibits *modal force variability*. I argue that there is no circumstantial necessity modal in Laz. As proposed for Nez Perce in Deal (2011), the felicity of DSC sentences in situations compatible with necessity claims is restricted to upward entailing environments (due to entailment).

- (13) Çxombi m- $\overline{\mathbf{a}}$ -şk’om-u (14) Ist’ik’anepe m- $\overline{\mathbf{a}}$ -t’ax-en  
 fish.NOM 1-APPL-eat-PST glasses 1-APPL-break-IMPF  
 i. I could eat the fish.  $[\exists]$  i. I can break the glasses.  $[\exists]$   
 ii. I couldn’t *not* eat the fish.  $[\forall]$  ii. I cannot *not* break the glasses.  $[\forall]$

There is evidence DSC introduces a **possibility modal**. Just like in Nez Perce, the ‘ambiguity’ of the modal in Laz disappears in DE environments. For example, under negation, only the strong reading survives (15). This is the case even when the only surviving reading is odd (16).

- (15) Çxombi va m- $\overline{\mathbf{a}}$ -şk’om-u  
 fish.NOM NEG 1-APPL-eat-PST  
 i. I could not eat the fish.  $[\neg\exists]$   
 ii. \* I did not have to eat the fish.  $*[\neg\forall]$
- (16) #Ist’ik’anepe g- $\overline{\mathbf{a}}$ -t’ax-en-na, svas kododvi!  
 glasses 2-APPL-break-IMPF-COND floor.LOC put.IMP  
 i. # If you can break the glasses, put them down!  
 ii. \* If you cannot *not* break the glasses, put them down!

*Selected References:* Deal, A. R. 2011. Modals without Scales. *Language* 87: 559-585. Hacquard, V. 2009. On the interaction of aspect and modal auxiliaries. *Linguistics & Philosophy* 32: 279-312. Pykkänen, L. 2008. *Introducing arguments*. Wurmbbrand, S. 2003. *Infinitives: restructuring and clause structure*.

<sup>1</sup>The relevant work on actuality entailments include: Hacquard, 2006, 2009, Borgonovo & Cummins, 2007; Mari & Martin, 2007; Portner, 2009; Homer, 2009; Kratzer, 2011; Alxatib, 2016

<sup>2</sup> $[[\text{perf}]] = \lambda w. \lambda P_{\langle vt \rangle}. \lambda t_i. \exists v. v \text{ in } w \ \& \ \tau(v) \subseteq t \ \& \ P(v); [[\text{pst}]]^c = \text{defined iff } c \text{ provides a time } t < t_c. \text{ if defined} = t$