A Modal Approach to Dative Subjects in Laz
Ömer Demirok, MIT

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 Pylkkänen’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-§ çxombi a§k’om-u 
Arte-DAT fish.NOM APPL-eat-PST
‘Arte was able to eat the fish.’

b. Arte-k çxombi ø§k’om-u
Arte-ERG fish.NOM ø-eat-PST
‘Arte ate the fish.’

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

(2) DAT EA
appl_mod voice VP

(3) EA
appl high VP

The applicative prefix [a-] is not a unique exponent of the proposed modal but shows up in other applicative structures, as well. Notice that Pylkkänen’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-§ a-cib-u
Şana-DAT APPL-cook-PST
‘(Someone) cooked for Şana.’

(5) Arte-k Şana-§ u-cib-u
Arte-ERG Şana-DAT APPL-cook-PST
‘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 causitivizer [-in] is the overt exponent of voice.

(6) Ini do-ndžul-u
ice PV-melt-PST
‘The ice melted.’

(7) Ali-k ini do-ndžul-[in]-u
Ali-ERG ice PV-melt-CAUS-PST
‘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]-ndžul-*([in])-u
Ali-DAT ice PV-APPL-melt-CAUS-PST
‘Ali was able to melt the ice.’

(9) *Ini-s dv-[a]-ndžul-u
ice-DAT PV-APPL-melt-PST
Int: ‘The ice was able to melt.’
Semantic Composition: The `applmod` mediates the relationship between the DAT_{EA} and the \textit{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 `applmod` is the locus of the modal semantics, introducing a \textbf{circumstantial possibility modal}. In (1a), we have a perfective past, which in combination with `applmod` (10) yields an actuality entailment (Bhatt 1999). For concreteness, I use Hacquard’s (2009) composition\(^2\) 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.)

\begin{align}
\text{(10) } &[[\text{applmod}]] = \lambda w. \lambda R_{<s,<e,vt>}. \lambda x. \lambda v. \\
&\exists w' \text{ compatible with the circumstances in } w \text{ s.t. } R(w')(x)(v)=1
\end{align}

\begin{align}
\text{(11) } &\text{There is a past event } e \text{ in } w^* \text{ and there is a world } w' \text{ circumstantially accessible from } w^* \text{ s.t. that } e \text{ is an event of Arte eating the fish in } w'
\end{align}

(12) a. Arte
\[\text{applmod}\]
\[w_2\]
\[\lambda_2\]
\[\text{past}\]
\[\text{ASP}\]
(12a)

b. \[\lambda\]
\[\text{perfective}\]
\[w_2\]

The modal approach to DSC presents another familiar challenge. DSC sentences like (14) and (13) exhibit \textit{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).

\begin{align}
\text{(13) } &\text{C̄xombi m-[A]-sk’om-u} \\
&\text{fish.NOM 1-APPL-eat-PST} \\
i. &\text{I could eat the fish. } [\exists] \\
ii. &\text{I couldn’t not eat the fish. } [\forall]
\end{align}

\begin{align}
\text{(14) } &\text{Ist’ik’anepe m-[A]-t’ax-en} \\
&\text{glasses 1-APPL-break-IMPF} \\
i. &\text{I can break the glasses. } [\exists] \\
ii. &\text{I cannot not break the glasses. } [\forall]
\end{align}

There is evidence DSC introduces a \textbf{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).

\begin{align}
\text{(15) } &\text{C̄xombi va m-[A]-sk’om-u} \\
&\text{fish.NOM NEG 1-APPL-eat-PST} \\
i. &\text{I could not eat the fish. } [\neg\exists] \\
ii. &\text{* I did not have to eat the fish. } [*\neg\forall]
\end{align}

\begin{align}
\text{(16) } &\#\text{Ist’ik’anepe g-[A]-t’ax-en-na, svas kododvi!} \\
&\text{glasses 2-APPL-break-IMPF-COND floor.LOC put.IMP} \\
i. &\text{# If you can break the glasses, put them down!} \\
ii. &\text{* If you cannot not break the glasses, put them down!}
\end{align}


\footnote{1}The relevant work on actuality entailments include: Hacquard, 2006, 2009, Borgonovo & Cummins, 2007; Mari & Martin, 2007; Portner, 2009; Homer, 2009; Kratzer, 2011; Alxatib, 2016
\footnote{2}[[perf]]= \lambda w. \text{AP}_{<vt>}. \text{At}_{\tau(v)} \lambda v. \text{v in } w \text{ & } \tau(v) \subseteq t \& P(v); [[\text{pst}]]= \text{defined iff } c \text{ provides a time } t<\text{t}_c. \text{ if defined } = t