A Modal Approach to Dative Subjects in Laz[*]

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1.   Introduction

This study develops an analysis of the morphosyntactic contrast between sentences with a Dative external argument as in (1a) and sentences with an Ergative external argument as in (1b) in Laz.[1] Sentences with DAT external arguments in Laz (henceforth DSC for Dative Subject[2] Construction) are *modalized*. In particular, I propose that DSC incorporates a *circumstantial modal* in its composition, and hence communicates possibilities and necessities that arise from circumstances pertaining to an event (Kratzer 1981, 1991).

(1)   a.   Arte-$\boxed{\text{s}}$ çxombi $\boxed{\text{a}}$-şk'om-u
              Arte-DAT fish.NOM APPL-eat-PST
              i. 'Arte was able to eat the fish.'
              ii. 'Arte was unable to not eat the fish.'

       b.   Arte-$\boxed{\text{k}}$ çxombi   şk'om-u
              Arte-ERG fish.NOM eat-PST
              'Arte ate the fish.'

DSC, without any variation in its morphosyntax, can convey *circumstantial necessity* or *circumstantial possibility*. This phenomenon, known as *modal force variability*, has been reported in St'át'imcets (Rullmann et al. 2008), Gitksan (Peterson 2010), and Nez Perce

[1]Laz is an endangered South Caucasian language spoken primarily in Turkey. The data reported in this paper is from the Pazar (At'ina) dialect of Laz and comes from personal fieldwork. I am grateful to my Laz language consultant, Ismail Bucaklişi. Some notes on the Laz orthography: ş=[ʃ], ç=[tʃ], ğ=[ɣ] c=[dʒ], x=[x], and ['] represents an ejective consonant.

[2]I refer to Dative external arguments as 'subjects' here but nothing hinges on this label. For some arguments for the subjecthood of DAT external arguments in Laz, see Demirok (2013), Poole (2015).

(Deal 2011). I will show that the force variability in DSC patterns with what Deal (2011) reports for Nez Perce.

Notably, nothing in the morphosyntax of DSC is specific to its modal construal. The circumstantial modal reading arises if and only if the DAT argument is construed as the external argument. As shown in (2), the surface morphosyntax of DSC is *syncretic* with other (i.e. non-modal) structures (e.g. Pylkkänen's (2002) high applicative introducing a benefactive argument), where the DAT argument is not construed as an external argument.

(2)   Şana-**s** $\boxed{\text{a}}$-cib-u
         Şana-DAT APPL-cook-PST
         '(Someone) cooked **for Şana**.'

The surface morphosyntax and one of the interpretations of DSC are reminiscent of what Schäfer (2009) calls *Oblique Causer Construction*, where the understood 'causer' is not an external argument but is introduced as a non-core/oblique argument. I will argue that despite superficial similarities, DSC in Laz and the Oblique Causer Construction are fundamentally different.

This paper proceeds as follows. In section 2, I explore the modal approach to DSC and show that the force variability pattern in Laz is on a par with its counterpart in Nez Perce (Deal 2011). In section 3, I propose a compositional analysis that accounts for the external argument restriction on DSC and its morphosyntactic parity with other applicative structures. In the concluding section, I discuss the cross-linguistic implications of the proposal, comparing DSC with Oblique Causer Construction (Schäfer 2009).

2.   Exploring the modal approach

DSC utterances like in (3) typically have two different but systematically related translations into English. Both of these construals point to a circumstantial modal, which according to the view of modality developed in Kratzer (1981, 1991), talks about *possibilities and necessities that arise from relevant circumstances*.[3]

(3)   Arte-**s**   çxombi $\boxed{\text{a}}$-şk'om-u
         Arte-DAT fish   APPL-eat-PST
         i. 'Arte was able to eat the fish.   [The relevant circumstances allowed it.]
         ii. 'Arte was unable to *not* eat the fish.'[4]   [The relevant circumstances forced it.]

DSC allows for a wide range of interpretations that fall under circumstantial possibility and circumstantial necessity. The context of utterance plays an important role in how DSC is interpreted, as discussed in the next sub-section.

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[3]I set aside some issues that concern circumstantial modality. For example, it is not clear if mere 'circumstantial possibility' is strong enough for ability ascription. See Hackl (1998) for abilitative constructions in English and Mandelkern et al. (2015) for a novel approach to agent-oriented modality.

[4]I use the cumbersome ¬ ◇ ¬ translation, for 'have to' does not always reflect the intended meaning.

2.1   How is DSC interpreted?

DSC sentences with possibility readings refer to a potential or an ability attributed to an agent (4a) or an instrument (4b). In some DSC sentences, external circumstances of an event (as opposed to its participants) are clearly more relevant. For example, (4c) can be uttered by someone who believes that no kiwi grows and will be grown in the Laz land but also believes that agricultural conditions (soil, climate etc.) would let kiwi grow there.[5]

(4)   a.   Şana-**s**   k'ai [a]-bir-en
          Şana-DAT well APPL-sing-IMPF
          'Şana is able to sing well.'

      b.   Ham burç'uli-**s** ham didi kva   [a]-t'ax-en
          This axe-DAT   this big stone APPL-break-IMPF
          'This axe can break this big stone.'

      c.   Laz-epe-s   hak k'ivi dv-[a]-rg-er-an
          Laz-PL-DAT here kiwi PV-APPL-grow-IMPF-PL
          'Laz people can grow kiwi here.'

In the DSC sentences in (5), relevant circumstances are understood to *force* an event to unfold.[6] Hence, typical scenarios of circumstantial necessity involve a compulsion (5a), an uncontrollable physiological event (5b), or other circumstantially inevitable events like accidents (5c)-(5d).

(5)   a.   Ç'ik'oleta o-m-[a]-şk'om-u
          chocolate PV-1-APPL-eat-PST
          'I couldn't not eat the chocolate.'
          (*Context: I was on a diet but I felt an irresistible urge to eat something sweet.*)

      b.   Bere-**s**   [a]-çind-asere
          child-DAT APPL-sneeze-FUT
          'The child will be unable to not sneeze.'
          (*Context: The child has a pollen allergy and the pollen season is coming.*)

      c.   Arte-**s**   ist'ik'anepe [a]-t'ax-u
          Arte-DAT glasses   APPL-break-PST
          'Arte was unable to not break the glasses.
          (*Context: Arte tripped while carrying a tray of glasses.*)

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[5]The *relevant* circumstances that allow or force an event to unfold are radically dependent on the context. For example, one can commit to the claim in (4b) because there is a deep crack in the stone or because the axe is a really strong one. See Hacquard (2006) and Thomas (2014) for relevant discussion.

[6]See also Davis et al. (2009) who argue that the out-of-control marking in St'át'imcets instantiates *circumstantial modality*. Notably, DSC in Laz and the out-of-control marking in St'át'imcets exhibit full parallelism with respect to the interpretations available to them.

d.   Ham xami-**s**   k'iti-sk'ani ⟨a⟩-k'vat-en
     this   knife-DAT finger-your APPL-cut-IMPF
     'Lit: This knife cannot not cut your finger.'
     'You cannot not cut your finger with this knife .'
     (*Context: It doesn't matter how careful you are. The knife is extremely sharp.*)

One final note for completeness sake: DSC cannot express epistemic modality or other root modalities like deontic modality.[7]

(6)   Bere-s   ordo a-ncir-u
     child-DAT late APPL-sleep-PST
     * The child might/must have slept early.   (epistemic)
     * The child was allowed/obliged to sleep early.   (deontic)
     ✓The child was able to sleep /was unable to not sleep early.   (circumstantial)

2.2   Modal Force Variability

Given that the modal in DSC is circumstantial, the contextual variation can predict the range of interpretations available to the sentences in (4) and (5). However, more needs to be said regarding the formal identity between sentences that constitute necessity and possibility claims. As is well known, the force of a modal is typically lexically encoded. For example, the necessity and possibility modals in (7) can be distinguished as in (8).

(7)   a.   John **must** be the murderer.
     b.   John **might** be the murderer.

(8)   a. $[[must]]^{w,c} = \lambda p_{\langle s,t \rangle}. \forall w' [w' \in B(w) \rightarrow p(w')=1]$
     b. $[[might]]^{w,c} = \lambda p_{\langle s,t \rangle}. \exists w' [w' \in B(w) \& p(w')=1]$
     (assume that c provides an epistemic modal base B)

An important property of DSC utterances is that they exhibit force variability in that they can convey both circumstantial necessity and possibility without any lexical or morphosyntactic alternation co-varying with the assigned interpretation. The phenomenon of force variability has been studied in St'át'imcets (Rullmann et al. 2008), Gitksan (Peterson 2010), and Nez Perce (Deal 2011). As pointed out in Deal (2011), force variability may not be an empirically uniform phenomenon. Accordingly, it has received different analyses.[8] In the following, I show that the force variability pattern I have described for DSC aligns with the force variability pattern in Nez Perce (Deal 2011).

Deal (2011) argues that the force variable modal *o'qa* in Nez Perce (9) is in fact a plain possibility modal and its use is only *compatible* with situations in which the corresponding necessity claim would be true.

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[7]See Öztürk & Pöchtrager (2011) to see how deontic and epistemic modalities are expressed in Laz.

[8]See also section 2.5 in Kratzer (2012) for further commentary on this phenomenon.

(9)   a.   tepelwéeku's-ne 'aa-p-**ó'qa**   hip-naaq'í-t-pa
               candy-OBJ   3OBJ-eat-MODAL eat-finish-PART1-LOC
               You **can** eat candy after the meal.'   (ex. 13, p. 11)

        b.   náqc-wa   hi-pa-'ác-**o'qa**
               one-HUM 3SUBJ-S.PL-enter-MODAL
               'People **must** go in one at a time.'   (ex. 17, p. 12)

Deal's claim is that ϕ-*o'qa* can serve as a necessity claim as Nez Perce does not have the dual of *o'qa*. In binary modal systems, existential modals give rise to the implicature that its stronger alternative is false, as illustrated in (10). Deal argues that since there is no universal alternative of *o'qa*, Nez Perce speakers can felicitously utter ϕ-*o'qa* sentences even when a stronger (necessity) claim would be felicitous in the context.[9]

(10)   Assertion: You are allowed to leave now.
         Implicature: *It is not the case that you have to leave now.*

This proposal makes an important prediction, which is borne out in Nez Perce. Given that *o'qa* is a possibility modal, only the possibility readings will be available in Downward Entailing (DE) environments, for example, under negation (11).

(11)   wéet'u 'ee kiy-**ó'qa**
         not   you go-MODAL
         i. ✓ 'You cannot go.' [not possible]
         ii. * 'You do not have to go.' [not necessary]   (ex. 49, p. 22)

Deal's findings for Nez Perce replicate for DSC in Laz. In negated DSC sentences, no ambiguity is observed. The only reading that speakers can access is the stronger reading, i.e. *not > possible*. Even in a context which favors the necessity construal for DSC under negation, the weaker reading, i.e. *not > necessary*, is unavailable, as shown in (12).

(12)   *Context: Tanura's brother gives Tanura his favorite chocolate but then gets*
         worried because if Tanura eats it before dinner, their mother will be angry. So he
         asks his mom if it's ok. She says: Don't worry:
         Tanura-s   ç'ik'oleta **var a**-şk'om-en
         Tanura-DAT chocolate NEG APPL-break-IMPF
         i. 'It is not the case that Tanura cannot not eat chocolate.' [✓felicitous, *available]
         ii. 'It is not the case that Tanura can eat chocolate.'   [*felicitous, ✓available]

Similarly, in another DE environment, namely in the antecedents of conditionals, it is impossible to construe the modal as a circumstantial necessity modal. The context for (13)

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[9]Essentially, Deal argues that force variability can be an epiphenomenon of the modal system of a language. When a language has a possibility modal M_{pos} but lacks its dual M_{nec}, speakers of this language have no reason not to use M_{pos} in situations when M_{nec} would also be true.
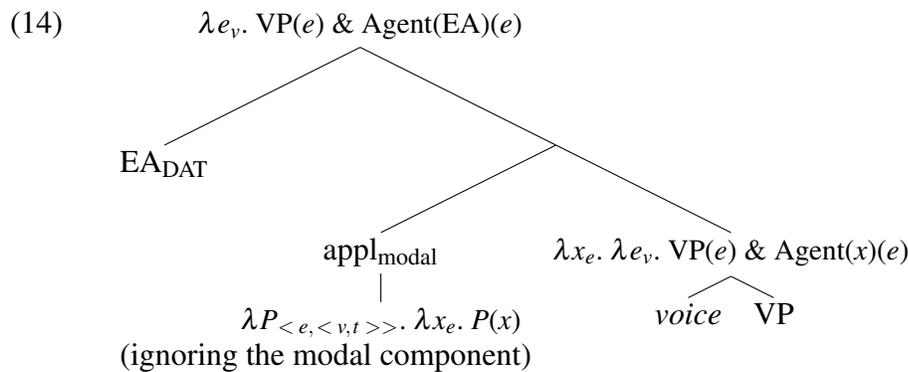
favors the necessity construal for the modal embedded inside the conditional antecedent. However, speakers are only able to access the non-felicitous reading where the modal is interpreted as a plain possibility modal.

(13)   *Context: The speaker sees the addressee trying to carry a tray full of glasses across the room and thinks that he may not be able to reach his destination successfully, she yells:*
       İst'ik'anepe g-**a**-t'ax-en-na,   svas   kododvi!
       glasses   2-APPL-break-IMPF-COND floor.LOC put.IMP
       i. 'If you are unable to *not* break the glasses, put them down!'   [✓felic., *avail.]
       ii. 'If you are able to break the glasses, put them down!' [*felicitous, ✓available]

Deal's proposal predicts the distribution reported above. In the absence of a necessity modal, speakers are able to utter DSC sentences (which feature a possibility modal) even in scenarios in which a necessity modal would be felicitous. When entailment patterns are reversed, however, necessity construals for DSC are no longer possible. Hence, following Deal (2011), I propose that DSC features a circumstantial modal whose force is lexically fixed as existential.

3.   A Compositional Analysis

Building on insights from earlier work on Laz (Öztürk & Pöchtrager 2011, Demirok 2011, 2013, Öztürk 2013, Öztürk & Erguvanlı-Taylan 2017), I propose that DSC sentences have the syntax in (14). The tree is semantically annotated to illustrate the composition, ignoring the modal component for now. The DAT external argument is syntactically introduced in the specifier of an applicative head that selects for a voiceP (Kratzer 1996) whose specifier is empty.[10] I will argue that the semantic variable of the external argument is introduced by the voice head but the external argument itself is merged in the specifier of the applicative head. In other words, the applicative head at least has this trivial function of saturating the missing external argument in its complement with the DP in its specifier.

(14) $\lambda e_v.$ VP(e) & Agent(EA)(e)

       EA$_{DAT}$

              appl$_{modal}$ $\lambda x_e. \lambda e_v.$ VP(e) & Agent(x)(e)
              |
       $\lambda P_{<e,<v,t>>}. \lambda x_e. P(x)$ *voice*   VP
       (ignoring the modal component)

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[10]There are conceivable alternatives that involve a control or binding configuration. For the sake of simplicity and due to the lack of motivation, I use the composition in (14). See Demirok (2013) and Öztürk (2013) for alternatives.

I propose that the locus of the modal semantics is the appl$_{modal}$ head. A motivation for this analysis is the generalization in (15), which precludes a modal interpretation in sentences like (16) where the DAT argument is *not* an external argument, and filters out sentences where an *internal argument* is the DAT argument in DSC as shown in (17).

(15)   *The circumstantial modal interpretation is available if and only if the DAT argument is construed as the external argument.*

(16)   Ç'urk'i-**s** xit'i dv-**a**-p'it'-u   (17)   *Ini-**s**   dv-**a**-ndğul-en
        boiler-DAT handle PV-APPL-bend-PST   ice-DAT PV-APPL-melt-IMPF
        'The boiler's handle got bent.'   Intended: 'The ice can melt.'

At least two assumptions need to be justified: the 'applicative' label for the modal head and the presence of the *voice* head. In what follows, I motivate these assumptions and then present an analysis integrating the modal component into the structure.

3.1   Evidence for appl⁰

Why should the modal be an applicative head? The claim that modals can be introduced via applicatives is not unprecedented. Rivero et al. (2010) propose that the Involuntary State Construction in Polish employs an applicative head that is the locus of a circumstantial necessity modal. However, one could argue that this is nothing more than a label given that, in the composition I proposed for DSC, appl$_{modal}$ is not semantically introducing any argument (cf. Pylkkänen (2002)) but merely saturating the agent variable introduced by the *voice* head. There is, however, language-internal evidence that the morphosyntactic exponence of the modal is mediated by an applicative head in Laz.

The first piece of evidence comes from case marking patterns.[11] The overt case marking on the external argument in DSC is Dative (18a) on a par with canonical applied arguments (19) whereas external arguments in non-DSC sentences appear in Ergative (18b).

(18)   a.   Bere-**s** çxombi **a**-şkom-u
              Arte-DAT fish.NOM APPL-eat-PST
              'The child was able to eat the fish.'
              'The child was unable to not eat the fish.'

       b.   Bere-**k** çxombi şkom-u
              Arte-DAT fish.NOM eat-PST
              'The child ate the fish.'

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[11]Agreement patterns in DSC constitute another piece of evidence that the DAT argument in DSC is an applied argument. With respect to person agreement, the DAT external argument in DSC patterns with applied arguments (benefactive etc.) and objects of (di)transitive predicates as opposed to subjects of non-DSC sentences. As is well known, the verbal agreement patterns in South Caucasian languages are notoriously complex. Hence, it is impossible to discuss them in any detail here. The reader is referred to Demirok (2011, 2013) and Blix (2018).

(19) a. Baba-k   bere-[s] lu   u-cib-u
          father-ERG Şana-DAT cabbage.NOM APPL-cook-PST
          'The father cooked cabbage for the child.'   [benefactive]

      b. Bere-[s] k'inçi   u-ğur-u
          child-DAT bird.NOM APPL-die-PST
          'The bird died on the child.'   [malafective]
   'The child's bird died.'   [possessor]

The second piece of evidence comes from an interesting syncretism pattern. The prefix [a-] is not a unique exponent of the proposed modal head but also shows up in other applicative structures, as well. An illustrative case is impersonal passive sentences with a benefactive applied argument. These sentences also feature the prefix [a-] (20).

(20) Şana-[s] [a]-cib-u
      Şana-DAT APPL-cook-PST
      '(Someone) cooked for Şana.'

The relevant generalization is the following: [a-] shows up when both of these conditions are met: (i) there is an applicative head and (ii) the specifier of the voiceP is empty. Notably, DSC is another environment where both of these conditions are met. When only one of these conditions are met, Laz makes use of other morphemes: When the spec-VoiceP is not empty, the applicative prefix is not [a-], but [u-][12] (21a). When the spec-VoiceP is empty and there is no applicative head, the prefix [i-] surfaces (21b).

(21) a. Arte-k   Şana-[s] [u]-cib-u
          Arte-ERG Şana-DAT APPL-cook-PST
          'Arte cooked for Şana.'

      b. K'inçi [i]-ğur-in-u
          bird   NOEA-die-CAUS-PST
          '(Someone) killed the/a bird.'

I propose to gloss [a-] as APPL+NOEA in reference to the presence of an applicative head and the absence of an external argument. Both DSC and impersonal passive constructions with a benefactive applicative head satisfy both of these conditions. This syncretism gives us the ambiguity in (24).

(22)   *DSC*   (23)   *Impersonal+Benefactive*
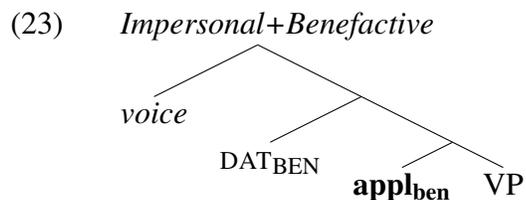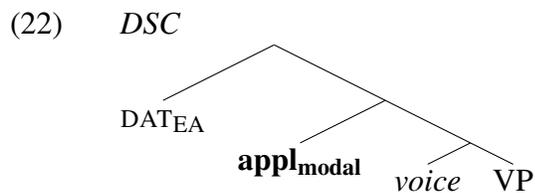
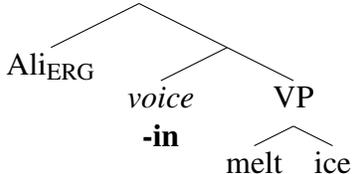[12][u-] only cross-references 3rd person applied arguments.

(24) Şana-[s] [a]-cib-u
Şana-DAT APPL+NOEA-cook-PST
i. 'Şana was able to cook.' → (22)
ii. '(Someone) cooked for Şana.' → (23)

3.2   Evidence for voice[o]

I proposed that appl$_{modal}$ composes with a voiceP whose agent variable is unsaturated as in (25). However, the alternative composition in (26) could yield the same output assuming that the appl$_{modal}$ is introducing the external argument both syntactically and semantically (i.e. just like the voice head (Kratzer 1996)).

(25)

DAT$_{EA}$
    appl$_{modal}$
       voice VP

(26)

DAT$_{EA}$
    appl$_{modal}$ VP
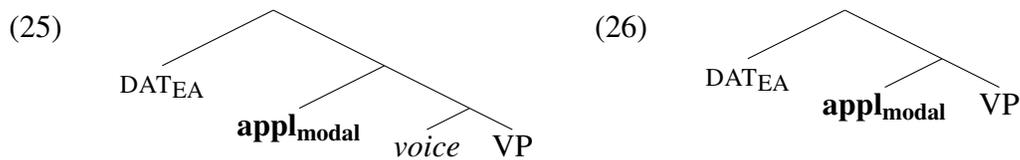
There is evidence that (26) is not available in Laz. The argument against the structure in (26) comes from the incompatibility of DSC with unaccusative bases (Demirok 2013, Öztürk 2013). Consider the transitivity alternation between (27) and (28). Adopting the view in Kratzer (2005), Deal (2009), I assume that the causative marker [-in] in (28) spells-out the *voice* head.[13]

(27)   a.   Ini   do-ndğul-u   b.   VP
            ice.NOM PV-melt-PST
            'The ice melted.'   melt   ice
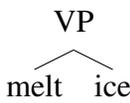
(28)   a.   Ali-**k**   ini   do-ndğul-[**in**]-u   b.
            Ali-ERG ice.NOM PV-melt-CAUS-PST   Ali$_{ERG}$
            'Ali melted the ice.'   *voice*   VP
                                                             -in
                                                                   melt   ice

The causative morpheme [-in] is obligatory in the DSC example in (29), suggesting that the *voice* head is present in the structure.

(29)   Ali-**s**   ini dv-[**a**]-ndğul-***(in)**-u
       Ali-DAT ice PV-APPL+NOEA-melt-CAUS-PST
       'Ali was able to melt the ice.'

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[13]The internal composition of the VP can differ depending on whether the event involves a change of state or not. I simplify the structures by not representing layers like CAUSE. See Deal (2009) and references therein for relevant discussion on further decomposition of events.

The proposed composition, by stipulating[14] that appl$_{\text{modal}}$ composes with a voiceP, also ensures that the DAT argument in DSC is always the external argument, correctly filtering out sentences like in (30a), cf. (30b).

(30) a. *Ini-**s** dv-**a**-ndğul-u
        ice-DAT PV-APPL+NOEA-melt-PST
        Int: 'The ice was able to melt.'

    b. Ini do-ndğul-u
        ice PV-melt-PST
        'The ice melted.'

3.3 Integrating the modal

We have established that DSC incorporates a circumstantial possibility modal. While no exponent is designated specifically for the proposed modal, Laz speakers have a reliable means of detecting the modal. This is the generalization in (15), namely that the modal interpretation is available iff the DAT argument indexed by the applicative prefix [a-] is construed as the external argument, as shown in (31).

(31) Şana-**s** **a**-cib-u
    Şana-DAT APPL+NOEA-cook-PST
    i. 'Şana was able to cook.'   [external argument → modal]
    ii. '(Someone) cooked for Şana.'   [benefactive argument → non-modal]

To anchor the modal interpretation to the external argument introduced by the appl$_{\text{modal}}$ head, I propose to locate the circumstantial possibility modal within the appl$_{\text{modal}}$ head. Since the modal is introduced within the event domain and below the aspect (Hacquard 2006), it composes with a predicate of events (*modulo* the external argument) and returns a predicate of events.[15] Hence, the denotation of the appl$_{\text{modal}}$ that incorporates the circumstantial possibility modal will be as in (32). Accordingly, the truth conditions for the modal reading of (31) will be as in (33).[16] The structural composition is provided in (34).
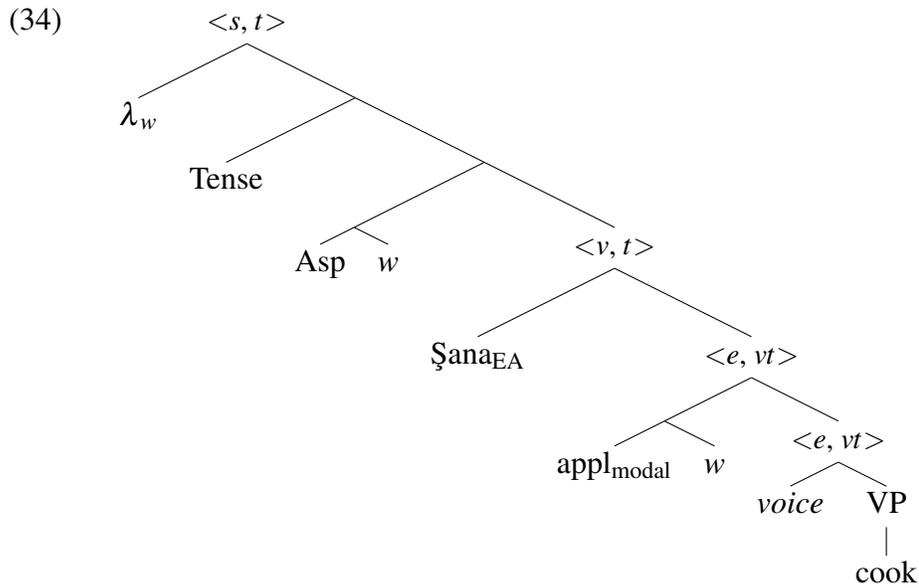
(32) $[\![\text{appl}_{\text{modal}}]\!] = \lambda w_s.\ \lambda R_{<e,\,vt>}.\ \lambda x_e.\ \lambda e_v.\ \exists w' \in \text{MB}_{\text{circ}}(w): R(x)(e)\ \&\ e \leq w'$

(33) $[\![(34)]\!] = 1$ iff there is a past event e in w* and there is a world w' circumstantially accessible from w* such that e is an event of cooking by Şana in w'

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[14]I believe this to be a point of cross-linguistic variation. Both VPs and VoicePs must in principle be eligible complements to circumstantial modals.

[15]I assume that the outer aspect is responsible for existentially binding the event variable and situating it temporally (Klein 1994, Kratzer 1998, Hacquard 2006, von Stechow & Beck 2015). Following Hacquard (2006), I assume that aspect also situates the event [that it existentially binds] in a world.

[16]As is crosslinguistically common with circumstantial modals, DSC exhibits actuality entailments under the perfective aspect. Due to space limitations, I cannot discuss them here. The composition presented here follows Hacquard (2006) in placing the modal below the aspect and allowing the aspect to situate the event in the evaluation world in an attempt to derive the entailment that the event took place in the actual world (besides being circumstantially possible). On actuality entailments, see Bhatt (1999), Hacquard (2006, forthcoming), Alxatib (2016), Privoznov (2018), and works cited in them.

(34)

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                    <s, t>
         λ_w
              Tense
                      Asp   w        <v, t>
                               Şana_EA        <e, vt>
                                        appl_modal   w      <e, vt>
                                                         voice    VP
                                                                   |
                                                                  cook
```

4.   Cross-Linguistic Implications and Conclusion

I argued that the morphosyntactic exponence of circumstantial possibility is mediated via an applicative head in Laz. From a typological perspective, the surface morphosyntax of DSC is reminiscent of a non-modal construction referred to as Involuntary Agent Construction (Haspelmath 1993, Fauconnier 2011) or Oblique Causer Construction (Schäfer 2009) (henceforth OCC), illustrated by the Guugu Yimidhirr paradigm in (35).

(35)   a.   Ngayu   galga nhanu   dumbi
            1SG.NOM spear 2SG.GEN break.PST
            'I broke your spear'

       b.   Ngadhun-⌐gal⌐ galga nhanu   dumbi-⌐:dhi⌐
            1SG-ADESS   spear 2SG.GEN break.PST-ANTIC
            'I accidentally broke your spear.'   (Haviland (1979): 125, 149)

OCC, like DSC, may feature case alternation and intransitivizing morphology.[17] Most strikingly, one of the readings of DSC matches with what has been reported to be available with OCC, namely the **accidental event** interpretation (see (5c)).

   Referring to the event in OCC, Fauconnier (2011) writes "*... only possible when the verb in question can have anticausative semantics,... an event that seems to take place spontaneously, without the involvement of an instigator (e.g. The glass broke).*". In accordance with this generalization, the syntax Schäfer (2009) offers for OCC is as in (36), where the oblique argument is not an external argument but a non-core argument introduced onto an anticausative event.

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[17]This is indirectly signalled in DSC by the prefix [a-] which shows up only in the absence of an external argument in spec-VoiceP.

(36)

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        ╱‾‾‾‾╲
  OBL  ╱      ╲
      ╱‾‾‾╲    ╲
   appl   VP_anticausative
```

(adapted from Schäfer (2009))

As discussed in section 3.2, DSC cannot compose with anticausative events, unlike OCC. A further asymmetry that directly follows from the absence/presence of the *voice* head is that OCC does not license instruments (Schäfer 2009), unlike DSC (37).[18]

(37) **Xami-te** k'iti-şkimi m-a-k'vat-u
knife-with finger-my 1-APPL+NOEA-cut-PST
'I was unable to not cut my finger with the knife.'

An informative contrast comes from the paradigm in (38). Laz, in fact, has both DSC (38a) and OCC (38b). Note that the DSC example is built on the root for transitive 'break' [t'ax] whereas the OCC example is built on the root for intransitive 'break' [t'rox]. Both (38a) and (38b) can be used to describe an accidental event in which glasses broke. But crucially, (38a) cannot be followed by (38c) while (38b) can. This follows from the fact that the DAT argument is the external argument in (38a)[19] but an affectee in (38b).

(38) a. Arte-s ist'ik'anepe $\boxed{a}$-t'ax-u
Arte-DAT glasses APPL+NOEA-break_{transitive}-PST
'Arte was unable to not break the glasses.' [DSC]

b. Arte-s ist'ik'anepe $\boxed{u}$-t'rox-u
Arte-DAT glasses APPL-break_{intransitive}-PST
'The glasses broke on Arte.' [OCC]

c. va t'ax-u
NEG break-PST
'He did not break (them).'

On a final note, I should note that Laz is not the only language where the morphosyntactic exponence of circumstantial modality resembles OCC. For example, Khwarshi exhibits exponence parallelism between a modal construction that seems to exhibit force variability as in Laz (39a) and OCC (39b) which is only compatible with the accidental event interpretation. Notably, the modal which has the overt exponent [-l] and the null (applicative) head responsible for the OCC interpretation assign the same oblique 'contessive' case.

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[18]In fact, in DSC, the DAT external argument can be an instrument as in (5d).

[19]The fact that (38c) cannot be a continuation of (38a) also informs us that DSC brings in the noncancellable inference that the described event actually took place. This is the *actuality entailment* under the perfective aspect. See footnote 16.

(39)   a.   uža-**qa**   zihe   b-uxad-$\boxed{1}$-i
           boy-CONT cow.III III-slaughter-POT-PST.W
           i. 'The boy slaughtered the cow accidentally.'
           ii. 'The boy could slaughter the cow.'

   b.   ɣina-**qa**   qaba   l-uc-i
           woman-CONT vase.IV IV-break$_{\text{intransitive}}$-PST.W
           i. ✓ 'The woman broke the vase by accident.'
           ii. * 'The woman could break the vase.'   (*Khwarshi*, Khalilova 2009)

I hope to have shown that the morphosyntactic reflex of circumstantial modality can feature an applicative head as in Laz, creating structures that look like OCC. Given that OCC typically describes circumstantial necessity situations, the OCC-like exponence of circumstantial modality might further mask the modal and sometimes the force variability associated with it.[20] Hence, differential diagnosis needs to be a routine practice in cross-linguistic research on the variable exponence of circumstantial modality.

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[20]To illustrate, Fauconnier (2011) discusses the out-of-control marking in St'át'imcets as an example of Oblique Causer Construction whereas Davis et al. (2009) shows that the out-of-control marking in St'át'imcets instantiates circumstantial modality and furthermore exhibits force variability.

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