Applicatives in Pazar Laz

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1. Introduction:
Laz is an endangered South-Caucasian language spoken in North-Eastern Turkey. Pazar dialect of Laz (PL) also known as Atina makes use of applicative morphology to introduce recipients (1), benefactives (2) and possessors (3). The experiential perfect construction (EP) (4) and dynamic modality (DM)/unintentional causation (UC) constructions (5) also require applicative morphology. Applicatives in (1-5) are overtly marked on the verb with one of the three markers u- for third person, i- for 1st and 2nd, a- person neutral. Applied arguments bear dative case and are marked with m-set object agreement (Holisky 1991):

(1) a. Koçi-k bere-s cenç’arer u-ncgn-u
    man-erg child-dat money 3appl-send-past.3ps
    The man sent the money to the child.
b. Koçi-k mi cenç’arer m-ı-ncgn-u.
    man-erg me money 1obj-appl-send-past.3ps
    The man sent me the money.

(2) a. Ma Ahmedi-s pasta v-u-ç’v-i.
    I Ahmet-dat cake 1sbj-3appl-bake-past.1ps
    I baked Ahmet a cake.
b. Si ma pasta m-i-ç’v-i.
    You me cake 1obj-2appl-bake-past.2ps
    You baked me a cake.

(3) a. Nana-k bere-s xe-pe d-u mbon-u.
    mother-erg child-dat hand-pl PV-3appl-wash-past.3ps
    The mother washed the child’s hands.
b. Nana-k ma xe-pe m-i-mbon-u.
    mother-erg me hand-pl 1obj-appl-wash-past.3ps
    The mother washed my hands.

(4) a. Ali-s cami u-t’ax-ap-u-n.
    Ali-dat glass 3appl-break-caus-TS-pres.3ps
    Ali has broken glass (before).
b. Ma cami m-i-t’ax-ap-u-n.
    I glass 1obj-appl-break-caus-TS-pres.3ps
    I have broken glass (before).

(5) a. Ali-s cami a-t’ax-e-n.
    Ali-dat glass appl-break-TS-pres.3ps
    i. Ali can break the glass.
    ii. Ali involuntarily breaks glasses.
b. Ma cami m-a-t’ax-e-n.
    I glass 1obj-appl-break-TS-pres.3ps
    i. I can break the glass.
    ii. I involuntarily break glasses.

Applicative markers occur in the preverbal slot following the agreement prefixes, which is the slot for other valency markers such as the causative o-, the impersonal voice marker i-, reflexive marker i-.

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It is possible to stack more than one dative argument introduced via applicatives bearing different semantic roles per clause in PL. But there are certain co-occurrence restrictions:

**Table 1. Possible and impossible applicative combinations in PL**

<table>
<thead>
<tr>
<th></th>
<th>Recipient</th>
<th>Benefactive</th>
<th>Possessor</th>
<th>Perfect</th>
<th>Modal</th>
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<tr>
<td>Recipient</td>
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<tr>
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<tr>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

Below we illustrate the possible combinations given in Table 1 above:

(6) a. Xordza-k Ali-s k’oçi-s bere u-şk’-u.   
    woman-erg Ali-dat man-dat child 3appl-send-past.3ps
    The woman sent the child to the man for Ali.

b. Xordza-s Ali-s bere u-ş’k-ap-u-n.   
    woman-dat Ali-dat child 3appl-send-caus-TS-pres.3ps
    The woman has sent the child to Ali.

c. Xordza-s Ali-s bere a-ş’kv-e-n.   
    woman-dat Ali-dat child appl-send-TS-pres.3ps
    The woman may send the child to Ali.

d. Ma Ali-s m-i-çalişin-ap-u-n.   
    I Ali-dat 1obj-appl-work-caus-TS-pres.3ps
    I have worked for Ali.

e. Ma Ali-s m-a-çalişin-e-n.   
    I Ali-dat 1obj-appl-work-TS-pres.3ps
    I am able to work for Ali.

f. Ayşê-s bere-s ti u-mbon-ap-u-n   
    Ayşê-dat child-dat head 3appl-wash-caus-TS-pres.3ps
    Ayşê has washed the child’s head before.

g. Ayşê-s bere-s ti a-mbon-e-n   
    Ayşê-dat child-dat head appl-wash-TS-pres.3ps
    Ayşê can wash the child’s head.

The applicative patterns PL exhibits raise both typologically and theoretically interesting questions:

Pylkkänen (2002, 2008) proposes that cross-linguistically there are two types of applicative constructions:

i. Low applicatives, which denote a relation between two individuals and select DP complements (7a),
and ii. High applicatives, which denote a relation between an event and an individual, and select a VP as their complement (7b). However, the cross-linguistic availability of low applicatives has been questioned

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1 Valency markers are subject to a hierarchy based on c-command relations (cf. Demirok 2013):
   (i) a. Ahmedî-k koç’î-s bere-s cenc’areri o-nçön-ap-u.
       Ahmet-erg man-dat child-dat money caus-send-caus-past.3ps
       Ali made the man send money to the child.

Questions we have in mind:

• What does PL tell us with respect to the low-high applicative dichotomy?
• Does it have both low and high applicatives?
• Are the two patterns of low and high applicatives adequate to account for all PL patterns?
• How can we account for the co-occurrence restrictions given in Table 1?

Another interesting point re PL data is the nature of possessive datives. While Borer and Grodzinsky (1986) assume that possessive datives are benefactive/malefactive arguments of the verb, but acquire the possessive reading by binding an anaphoric element in the possessee, Landau (1999) and Lee-Schoenfeld (2005) argue that the possessor is part of the possessive phrase but undergoes raising into a position where the affectedness reading can be established.

Questions:

• Which analysis does the PL possessor applicative support, raising or binding?
• How do the possessor applicatives interact with other applicative types?

2. Case and agreement patterns of datives in PL

In PL, the distribution of case morphology is sensitive to the semantic roles arguments bear. Agents/causers/initiators acting as subjects bear ergative case. While undergoer subjects appear as nominative (9), in parallel to undergoer/theme objects (8a), as illustrated above, recipients, benefactives, and most experiencers (10) appear as dative, and typically require specific applicative morphology on the verb:

(8) a. Bere- \textit{k} tzari-∅ şum-s.    \hspace{1cm} b. Bere-\textit{k} i-bgar-s.
    child-erg water-nom drink-pres.3ps \hspace{1cm} child-erg val-cry-pres.3ps
    The child is drinking water \hspace{1cm} The child is crying.

(9) Bere-∅ do-ğur-u.    \hspace{1cm} (10) Bere-s Ali a-limb-e-n.
    child-nom PV-die-past.3ps \hspace{1cm} child-dat Ali appl-love-TS-pres.3ps
    The child died. \hspace{1cm} The child loves Ali.

Dative in PL is not linked to animacy. PL does not have a separate locative marker, and dative case can be used with inanimate locations, as well as with prepositions.

(11) a. Bere-k oda-s i-bgar-s. \hspace{1cm} b. p’i yema-s.
    child-erg room-dat val-cry-pres.3ps \hspace{1cm} before noon-dat
    The child is crying in the room. \hspace{1cm} before noon
In terms of agreement PL involves both preverbal and postverbal agreement markers:

(12) Suffixes: Present Set: Past Set:

<table>
<thead>
<tr>
<th></th>
<th>-s set</th>
<th>-n set</th>
</tr>
</thead>
<tbody>
<tr>
<td>1p&amp;2p</td>
<td>∅</td>
<td>∅</td>
</tr>
<tr>
<td>3ps</td>
<td>-s</td>
<td>-n</td>
</tr>
<tr>
<td>3ppl</td>
<td>-an</td>
<td>-nan</td>
</tr>
</tbody>
</table>

(13) Prefixes:

<table>
<thead>
<tr>
<th></th>
<th>v-set:</th>
<th>m-set:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1p</td>
<td>v- [p’, p, b]</td>
<td>m-</td>
</tr>
<tr>
<td>2p</td>
<td>∅</td>
<td>g-</td>
</tr>
<tr>
<td>3p</td>
<td>∅</td>
<td>∅</td>
</tr>
</tbody>
</table>

The agreement suffixes are grouped into past and present sets. The present set is further divided into –s and –n sets. Öztürk (2009) and Demirok (2013) assume T to be the probe for suffixal agreement, which only targets subjects. While suffixal agreement can reflect the features of ergative (14a) and nominative (14b) subjects, they can never reflect the features of dative subjects (14c), introduced via applicative morphology. Dative subjects require default 3ps agreement suffix. Thus, suffixal agreement in PL exhibits case discrimination. This follows from the inherent nature of the dative, as opposed to the structural nature of ergative and nominative (Emgin 2009).2 The inherent dative is provided by the applicative head.

(14) a. Ma v-i-bgar-i.       b. Ma v-uğur-i.       c. Ma si m-a-cer-u.
I 1sbj-cry-past.1ps I 1sbj-die-past.1ps I you 1obj-appl-believe-past.3ps
I cried.       I died.       I believed you.

When the nominative theme in dative constructions is focused, it can govern the suffixal agreement (15b). This we take as a piece of evidence that the theme interacts with T and thus checks the structural case of T in the presence of an inherently dative marked subject, regardless of focus:3

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2 Emgin (2009) shows that dative cannot alternate with genitive in nominalized clauses borrowed from Turkish but only ergative and nominative can undergo such an alternation:

child-erg val-cry-past.3ps I child-gen neg nomin-cry-nominal-3ps 1sbj-want-TS
The child cried. I want the child not to cry.

Child-nom die-past.3ps I child-gen neg nomin-die-nomin-3ps 1sbj-want-TS
The child died. I want the child not to die.

Ali-dat Ayşe appl-love-past.3ps I Ali-gen Ayşe nomin-love-nomin-3ps.poss 1sbj-want-TS
Ali loved Ayşe. I want Ali to love Ayşe.

3 The fact that T can bear default agreement, while checking case with the nominative argument in the presence of dative intervention implies that case and agreement can be dissociated in PL. Furthermore, since both nominative and ergative subjects check their case with T, case-checking and case-realization should be taken as two separate phenomena in PL in the lines of Marantz (1991) and Harley (1995). Though differentiated via different case markers at the level of morphology, syntactically both nominative and ergative subjects check structural cases against the T head. This qualifies PL as a regular nominative-accusative system at the level of syntax but as a morphologically ergative language (Dixon 1994). Thus, PL patterns with languages like Warlpiri, Enga and Niuean, which Legate (2005) calls languages with absolutive (nominative in the case of PL) as the morphological default.
The preverbal agreement markers are grouped into m-set and v-set markers by Holisky (1991), whose realization follows a strict person and case hierarchy (Demirok 2013):

\[
\begin{align*}
\text{m-set} & : \text{DAT}_{exp} 1/2/3 > \text{DAT}_{caus} 1/2/3 > \text{NOM}_{obj} 1/2 > \text{NOM}_{subj} 1/2 = \text{DAT}_{caus} 3 = \text{NOM}_3 \\
\text{v-set} & : \text{OBJ}_{1/2} = \text{NOM}_{1/2} > \text{SUBJ}_{1/2} = \text{ERG}_{1/2} = \text{DAT}_{3} = \text{ERG}_3
\end{align*}
\]

3. High Applicatives

3.1 Benefactives

PL benefactives pattern as high applicatives in terms of Pylkkänen’s criteria, as they are not only compatible with transitives (16a-b) or unaccusatives (17a-b), but also with unergatives (18a-b) and statives (19a-b).

15. a. Si ma g-a-cer-u.  
   You I 2obj-appl-believe-past.3ps 
   You believed me.
   b. Si MA v-a-cer-i.  
   You I 1sbj-appl-believe-past.1ps 
   You believed ME (not someone else)

The preverbal agreement facts indicate that the benefactive argument is introduced higher than the theme argument in accordance with the thematic hierarchy. As seen in (20) a 3ps benefactive dative argument can block agreement with a 2ps nominative object.

20. Ali-k xorza-s si u-car-u.  
   Ali-erg woman-dat you (*g-)3appl-feed-pst.3ps 
   Ali fed you for the woman.

Thus, we represent benefactives as introduced by an ApplP selecting a VP as in (21) depicting the case-checking relations we assume. While the ergative subject checks case with T, and the nominative object with v, the dative on the benefactive is inherently assigned by ApplP:

(21)
3.2 Recipient applicatives

Pylkkänen (2002, 2008) argues that low applicatives which establish a transfer of possession relation between two individuals are only compatible with unaccusatives and transitives, but not with unergatives, thus have a transitivity requirement. PL goal/recipient applicatives appear as good candidates for low applicatives.

There are two sets of ditransitive verbs in PL. Verbs such as give and show are inherently ditransitive verbs, which do not require applicative morphology to introduce their goal/recipient arguments as in (22). However, verbs such as send and bring, introduce their goal/recipient arguments via applicative morphology, hence they are derived ditransitives as in (23):

(22) K’oçi-k Ali-s si me-k-ç-u.             (23) K’oçi-k xorza-s si (*g)-u-şk’-u.
   man-erg Ali-dat you PV-2obj-give-past.3ps   man-erg woman-dat you 2obj-3appl-send-past.3ps
   The man gave you to Ali.                        The man sent you to the woman.

In (22), a 3ps dative recipient in non-derived ditransitive constructions does not block preverbal agreement with a 2ps nominative object. In (23), on the other hand, the 3ps dative recipient introduced via applicative morphology blocks agreement with the 2ps nominative object.

Non-derived ditransitive verbs also differ from derived ditransitives in terms of their scope behaviors. In non-derived ditransitives, the theme argument can scope over the goal/recipient argument. However, in derived ditransitives the theme argument cannot take scope over the goal/recipient:

(24) a. Ali-k ar talebe-s k’ata çitabi me-ç-u.       Theme>Recip, Recip>Theme
   Ali-erg one student-dat every book PV-give-past.3ps
   Ali gave every book to a student.
   b. Ali-k ar talebe-s k’ata çitabi u-şk’-u.       *Theme> Recip, Recip>Theme
   Ali-erg one student-3poss-dat every book 3appl-send-past.3ps
   Ali sent every book to a student.

The scope ambiguity in non-derived ditransitives implies that both the theme and the recipient arguments in (24a) start out from the same domain (Bruening 2001), but this is not the case in derived ditransitives in (24b). This further implies that (24b) cannot be a low applicative construction of Pylkkänen’s type where both the recipient and the theme start out from the same projection. Therefore, we assume that recipient applicatives are also high applicative constructions introduced above VP.

When recipient applicatives are combined with the high benefactive applicatives, only the features of the benefactive can be encoded in the preverbal agreement slot.

(25) a. Ali-k Ayşe-s ma ham bere u-şk’-u/*m-i-şk’-u
   Ali-erg Ayşe-dat I this child 3appl-send-past.3ps/1obj-appl-send-past.3ps
   Ali sent me this child for Ayşe. (Not: Ali sent Ayşe this child for me)
   b. Ali-k ma Ayşe-s ham bere m-i-şk’-u/ *u-şk’-u
   Ali-erg I Ayşe-dat this child 1obj-appl-send-past.3ps/3appl-send-past.3ps
   Ali sent this child to Ayşe for me. (Not: Ali sent me this child for Ayşe)

In the light of this evidence, we propose that recipient/goal applicatives are also high applicatives which belong to a separate domain than the theme, yet are introduced below the benefactive applicative as in (25). Thus, it is possible to stack high applicatives above a VP in PL, but following the theta-hierarchy. Recipients which are presupposed by their event structure of verbs like send and bring are introduced lower, while benefactives which are not presupposed are introduced higher.
3.3 Possessor applicatives

Possessor applicatives can only be used with unaccusatives (26a), transitives (26b), but not with unergatives (26c), thus they also exhibit a transitivity requirement:

(26) a. Bere-s nana d-u-ğur-u-n.
    child-dat mother PV-3appl-die-TS-pres.3ps
    The mother of the child is dying.

b. Nana-k bere-s xe-pe d-u-mbon-am-s.
    mother-erg child-dat hand-pl PV-3appl-wash-TS-pres.3ps
    The mother is washing the child’s hands.

c. Bere-s nana-k d-u-çaş-am-s.
    child-dat mother-erg PV-3appl-work-TS-pres.3ps

   i. *The mother of the child is working.
   ii. The mother is working for the child.

The possessor reading typically surfaces with inherently relational nouns, e.g. body parts, kinship terms. Furthermore, the possessor has to simultaneously bear an affectee (e.g. benefactive or malfactive) role. The possessor construction cannot co-occur with benefactive or recipient applicatives. Such a reading is only available if the possessor is introduced within the theme DP and bears genitive case as in (28).

(27) a. *Ali-k nana-s bere-s xe-pe d-u-mbon-u
    Ali-erg mother-dat child-dat hand-pl PV-3appl-wash-past.3ps
    Ali washed the child’s hands for the mother.

   b. *Ali k t’oxtori-s xorza-s bere u-şk’-u.
       Ali-erg doctor-dat woman-dat child 3appl-send-past.3ps
      Ali sent the woman’s child to the doctor.

        Ali-erg mother-dat child-gen hand-pl PV-3appl-wash-past.3ps
      Ali washed the child’s hands for the mother.

       Ali-erg doctor-dat woman-gen child 3appl-send-past.3ps
      Ali sent the woman’s child to the doctor.

PL possessor applicatives support a non-raising analysis along the lines of Borer and Grodzinsky (1986), but not a raising analysis in the sense of Landau (1999) and Lee-Schoenfeld (2005). It is possible to have an overt pronominal possessor marked with genitive case within the possessee which can be interpreted as co-indexed with the dative argument as in (29). The overt possessor is used for focus purposes:

(29) Xorzha-k bere-si himu-şi toma u-mbon-u.
    woman-erg child-dat he-gen hair 3appl-wash-pst.3ps
    The woman washed the CHILD’s hair (for the child, not someone else’s hair).

Furthermore, as in (30), it is not possible to introduce a pronominal or overt affectee via a postpositional phrase, in addition to the dative possessor. Also with restructuring verbs, it is possible to insert adverbials in between possessor and the possesse and interpret them as modifying the restructuring matrix verb, which implies that the possessor and the possesse do not have to be clause-mates as in (31):

(30) *Xorzha-k himu/Ali şeni bere-si toma u-mbon-u.
    woman-erg him/Ali for child-dat hair 3appl-wash-pst.3ps
    The woman washed the child’s hair for him/Ali.

(31) Xorzha-k bere-s xolo toma o-mbon-u c-i-tsad-u.
    woman-erg child-dat again hair nomin-wash-nomin PV-val-try-pst.3ps
    The woman again tried to wash the child’s hair.
Although it is possible to have a benefactive and a recipient applicative to co-occur, possessive applicatives cannot co-occur with recipient applicatives. This provides further support for the non-raising analysis. As the recipient applicatives thematically occur lower than benefactive applicatives, in terms of locality they intervene and act as potential binders for the covert pronominal within the possessee DP:

Furthermore, as benefactive applicatives are not introduced above vP, possessors within agents in Spec, vP will not be co-indexed with the applied argument. This explains the incompatibility of these constructions with unergatives.

4. Higher applicatives in PL

Applicatives used in DM/UC and EP constructions exhibit several differences from high applicatives denoting benefactives, possessors and recipients. First, they exhibit different agreement patterns. While the suffixal agreement slot can depict the person features of the subject in high applicatives, in DM/UC and EP constructions the suffixal agreement is always realized as the default third person, regardless of the person features of dative and non-dative arguments within the clause:

\[(34)\] a. Si ma pasta m-i-ç’v-i. 
You me cake 1obj-2appl-bake-past 2ps postverbal subject agreement
You baked me a cake.
Another difference has to do with the interaction of these applicatives with thematic suffixes (TS). PL has four TSs -am, -um, -u(r) and -e(r), which denote imperfective aspect, but also reflect information regarding the argument structure and lexical aspect of the verb. In imperfective aspect, while high applicatives like benefactives can co-occur with different TSs (35), DM/UC and EP constructions specifically require the TS -e(r) and -u(r), respectively.

(35) a. Ali-k Ayşê-s u-çalis-am-s.  
Ali-erg Ayşê-dat 3appl-work-TS-pres.3ps  
Ali is working for Ayşê.

b. Tzari Ayşê-s u-ncx-u-n.  
water Ayşê-dat 3appl-heat.up-TS-pres.3ps  
The water is heating up for Ayşê.

c. Ali-k Ayşê-s metali u-ndrikh-um-s.  
Ali-erg Ayşê-dat metal.nom 3appl-bend-TS-pres.3ps  
Ali is bending the metal for Ayşê.

4.1 Voice and TSs in PL

Taylan and Öztürk (2014) and Öztürk and Taylan (in press) argue that all verbal categories should involve an initiator layer, hence there are no true unaccusatives in PL and show that as a vP/VoiceP bundling language, PL exhibits three main voice patterns: Initiator Voice (IV), Undergoer Voice (UV) and Active Impersonal Voice (AIV), which are used to highlight different parts of the event.

Each voice pattern is associated with different case and agreement patterns, as well as with different TSs. In IV, transitives, agentive unergatives (36a) and verbs of emission (36b) always take an ergative subject and the third person suffixal agreement is from the –s set in present tense. Agentive unergatives and verbs of emission take TS –am, while transitives choose between –am vs. –um depending on the affectedness of the form/constitution of the object/undergoer. In terms of lexical aspect, –am and –um are compatible with atelic activities (35a-b), (37a-b), as well as telic accomplishments (38a-b).

(36) a. Ma v-i-çalis-am-Ø  
I 1sbj-val-work-TS-pres.1ps  
I am working.

b. Ntsa-k gurgul-am-s  
sky-erg clap-TS-pres.1ps  
Thunder claps/is clapping.

(37) a. Amedi-k t'abaxi çx-am-s  
Ahmet-erg plate wash-TS-pres.3ps  
Ahmet is washing/washes the plate.

b. Ayla-k zimari şol-um-s  
Ayla-erg dough kneed-TS-pres.3ps  
Ayla is kneading/kneads the dough.

(38) a. Ahmedi-k dışk'a mo-ğ-am-s  
Ahmet-erg wood PV-bring-TS-pres.3ps  
Ahmet is bringing the wood.

b. Ahmedi-k oxori tzopx-um-s  
Ahmet-erg house build-TS-pres.3ps  
Ahmet is building the house.

We find unaccusative-like predicates denoting change of state in UV. The subject in these constructions is always nominative and takes –n set suffixes in the present tense. Such predicates require the TS –u(r). Achievements (39a), degree achievements (39b) and verbs of directed motion (39c) are in this group.

(39) a. Çile-pe t'vats-u-n  
seed-pl pop-TS-cop.3ps  
The seeds are popping.

b. Mts'up-u-n  
Get.dark-TS-cop.3ps  
The child is getting dark.

c. Bere nca-şe ey-ul-u-n  
child tree-allat. PV-climb-TS-cop.3ps  
The child is climbing the tree.

PL does not morphologically differentiate between passives, anticausatives and middles, instead it makes use of the AIV to meet these readings. In the imperfective, the TS -e(r) is used in combination with the valency marker i-. The subjects in this construction is nominative and again the –n set is used. The active impersonal voice strictly denotes an externally caused reading and necessarily an agentive interpretation.
(40) a. Dişk’a m-i-ğ-e-n.  
wood PV-val-TS-pres.3ps  
The wood is being brought.  
b. Oxori i-tzopx-e-n  
house val-build-TS-pres.3ps  
The house is being built.

Table 2. Three-way voice system in PL

<table>
<thead>
<tr>
<th>Voice System</th>
<th>Overt Arguments</th>
<th>Suffixal agreement for present tense</th>
<th>Valency marker</th>
<th>TS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiator Voice (IV)</td>
<td>Ergative Initiator Nominative Undergoer</td>
<td>-s set</td>
<td>-----</td>
<td>-am/-um</td>
</tr>
<tr>
<td>Undergoer Voice (UV)</td>
<td>Nominative Undergoer</td>
<td>-n set</td>
<td>-----</td>
<td>-u(r)</td>
</tr>
<tr>
<td>Active Impersonal Voice (AIV)</td>
<td>Nominative Undergoer</td>
<td>-n set</td>
<td>i-</td>
<td>-e(r)</td>
</tr>
</tbody>
</table>

Depending on its semantics, it is possible to have a single predicate appear in all three voices as in (41). If one wants to highlight the natural property or the state of the undergoer (i.e. the metal has the intrinsic property of bending, e.g. copper, or it is in a bent state), then UV is used as in (41b). But if the presence of an external factor, i.e. typically a human agent that brings about the change needs to be highlighted then AIV is used (41c). This means that a verb with an object that does not have the intrinsic property of bending (e.g. steel) is typically used with AIV, but not with UV.

(41) a. Ali-k ham metali ndrikh-um-s.  
Ali-erg this metal.nom bend-ts-pres.3ps  
Ali is bending this metal.’  
b. Ham metali ndrukh-u-n.  
this metal.nom bend-ts-pres.3ps  
‘The metal is bendable/bending/can bend.’  
c. Ham metali i-ndrikh-e-n  
this metal.nom val-bend-ts-pres.3ps  
‘This metal is being bent/bending.’

The valency marker i- in AIV is identical to the reflexive marker in PL (42b):

(42) a. Ma yali-s Ali b-dzir-i.  
I mirror-dat Ali 1p-see-past.1ps  
I saw Ali in the mirror.  
b. Ma yali-s v-i-dzir-i.  
I mirror-dat 1p-refl-see-past.1ps  
I saw myself in the mirror.

AIV is compatible with purpose clauses, instruments and initiator-oriented adverbs but not with agentive by-phrases or by itself phrases. The language simply lacks such adjuncts.

(43) Cami k’asi-te amolva şeni ç’ak’uç’i-te i-t’ax-e-n  
glass intention-with enter for hammer-with val-break-TS-pres.3ps  
The glass is intentionally broken with a hammer to enter.

We argue that this follows from the presence of the valency marker i-, which saturates the external argument of the predicate, disallowing the introduction of another initiator into the structure. Similar to the i- standing for the undergoer in reflexives, the i- in structures like (43) semantically closes the initiator (Chierchia 1995).  

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Öztürk and Taylan (in press), argue that it is possible to detect a syntactically active initiator for predicates even in UV. All internally caused change of state verbs which select -u(r) have a counterpart formed with -um and an ergative subject. Externally caused change of state verbs in UV are still compatible with purpose clauses and agent oriented adverbs indicating the presence of vP in their architecture:
The data in (44b) provide further evidence for the syntactically active external argument position these constructions have where the reflexive pronoun çendi in (44a) is licensed both in AV and AIV:

(44) a. Ali-k çendi var msk’v-am-s.
    Ali-erg self.nom neg praise-ts-pres.3ps
    ‘Ali does not praise himself.’

b. Çendi var i-msk’v-e-n.
    self.nom neg val-praise-ts-pres.3ps
    ‘One does not praise himself. (Lit:*Himself/herself is not praised.)’

As seen above, each voice type is associated with different TSs. TSs are not simple markers of imperfective aspect, but also denote information regarding argument structure and the lexical aspect. Ramchand & Svenonious (2013) show that progressive, a subtype of imperfective aspect, unlike perfective belongs to the eventive domain in the functional hierarchy, as it closely interacts with the lexical aspect of the verbs it embeds. They propose that progressive aspect heads the projection vEvtP introduced above the vP projection introducing the initiator. Following R & S (2013), we also argue that TSs in PL project a functional layer, which we call EventP, on top of the vP/VoiceP layer introducing the initiator of the event. As the head of EventP, they convey information not only about imperfective aspect, but also about event structure and argument structure properties of the verb in their c-command domain.

4.2 DM/UC constructions
The morphological composition of DM/UC constructions is similar to the AIV pattern in terms of the use of TSs. We assume they are built onto AIV, hence involve a syntactically active external argument position introduced via vP. That is why they are compatible with initiator oriented adverbs and purpose clauses:

(45)     EventP
          vP       Event
           –e(r) / –u(r) / am/-um
         Initiator   v’
          vP       v
         V
         Undergoer V

(i) a. Ombri purk-u-n.               b. Ombri-k purk-um-s.
      plum.tree bloom-TS-cop.3ps      plum.tree-erg bloom-TS-pres.3ps
      The plum tree blooms.          The plum tree blooms (with control/intention).

(ii) Noti k’elemi-te Ali-s parti göşinu şeni nç’ar-u-n.
     note pen-with Ali-dat party remind for write-TS-cop.3ps
     The note is (being) written with a pen to remind Ali about the party.

5 Note that TSs in PL function differently from the ones in Georgian. Lomashvili (2010:75) states that “There is no principled reason why certain verbs show up with either of these markers, since thematic suffixes are the formants inserted for morphological well-formedness.” However, the choice of the TSs in PL is principled and predictable depending on the argument structure and the lexical aspect of the verb. Verbs borrowed from Turkish take the TSs compatible with their lexical aspect and argument structure, e.g. k’irk ‘cut into small pieces’ takes –um, whereas seyir ‘watch’ requires –am.
b. Bere-s a-bgar-in-e-n.
    child-dat appl-cry-caus-TS-pres.3ps
The child can cry/ The child involuntarily cries.

As DM/UC applicatives are sensitive to the type of TS found in the EventP, that is, they are only compatible with –e(r), but not with –u(r), –am or –um unlike benefactives, we argue that DM/UC applicatives are introduced above EventP which hosts the TSs in its head position.\(^6\)

\[
\begin{array}{c}
\text{TP} \\
\text{ApplP} \\
\text{DP}_1 \\
\text{Appl'} \\
\text{Appl} \\
\text{EventP} \\
\text{a-} \\
\text{vP} \\
\text{Part} \\
\text{v'} \\
\text{Initiator} \\
\text{Undergoer} \\
\text{v} \\
\end{array}
\]

The verb final agreement slot gets filled with the default 3ps suffix –n, regardless of the person features of the theme, similar to the case of dative subjects. This implies that the dative DP intervenes and blocks the phi-checking of T with vP internal arguments, which is not the case with benefactives.

Only when the theme in DM/UC constructions is focused both the verb final agreement slot and the preverbal agreement slot reflect its features (48a). This is similar to the AIV pattern in the absence of the dative argument (48b). We argue that in (48), T checks the case of the theme as v head is defective.\(^7\)

\[
\begin{array}{c}
\text{TP} \\
\text{ApplP} \\
\text{DP}_1 \\
\text{Appl'} \\
\text{Appl} \\
\text{EventP} \\
\text{a-} \\
\text{vP} \\
\text{Part} \\
\text{v'} \\
\text{Initiator} \\
\text{Undergoer} \\
\text{V} \\
\end{array}
\]

\[\text{(47)}\]

\[\text{(48) a. Ali-s MA ce-v-a-ç-er-∅. DM/UC} \]
\[\text{Ali-dat me PV-1sbj-appl-TS-pres.1ps} \]
\[\text{Ali can/is able to beat me.} \]

\[\text{(48) b. Ma ce-v-i-ç-er-∅. AIV} \]
\[\text{me PV-1sbj-val-TS-pres.1ps} \]
\[\text{I am being beaten.} \]

We argue that the DM and UC readings of these constructions follow from the way the dative DP interacts with the implicit initiator in Spec, vP. The DP introduced by the applicative can act as a potential binder for the implicit initiator. If it binds it and is interpreted as co-referential with the initiator of the event, we get the DM reading. The UC reading, on the other hand, emerges when the initiator in Spec, vP is not bound by the applied argument DP but existentially or generically bound. Then the applied DP is not conceptualized as identical to the initiator of the event, and thus, is not responsible for it. In UC constructions, the dative argument is conceptualized as the unintentional causer of the event, which is also affected as a result of this experience. Thus, what we have in UC constructions is an affected experiencer. When we turn to the applicative in DM constructions, we see that the dative argument is taken as the location/holder of the particular property expressed by EventP. Landau (2010) defines experiencers

\(^6\) Boneh and Nash (2011) also argue that coreferential dative constructions in French involve a vP-selecting higher applicative. However, in PL the applicative head selects EventP above the vPs.

\(^7\) It can be claimed that due to being focused the theme moves into a higher position above vP, in the same spirit with the covert topicalization in Tsez as proposed by Polinsky and Potsdam (2001), and this in return enables the agreement between the theme and T.
as mental locations. Then we can tentatively suggest that the common denominator for the semantic contribution of the applicative head in UC and DM constructions is the interpretation of a location, where a mental state or a property holds.

4.3 EP constructions:
Applicative markers u- and i- in combination with the TS –(u)r are used in EP in PL. We assume that the applicative in the perfect is also introduced above EventP, as they specifically select –u(r) and exhibit the same blocking effect between the T head and vP-internal arguments for the verb final agreement slot:

(49) Ali-s ham xinci-še jur fara gol-ulv-ap-u-n.
Ali-dat this bridge-all two times pv-pass-caus-TS-pres.3ps
Ali has gone through this bridge twice.

(50) 

TP
   
   ApplP
      
      Appl
         
         EventP
            
            vP
               Event
                  -u(r)
               
               Initiator
                  v'
                     
                     VP
                        v
                           Undergoer

Similar to the DM/UC constructions in EP construction, the dative argument interacts with the initiator of the event as this construction is only compatible with transitives (51a), agentive unergatives (51b), verbs of emission (51c) and internally caused change of states (51d-e), but not with externally caused ones (52a-b), which requires a periphrastic construction (53a-b):

(51) a. Ayşe-s ham oxori-s opşa cami u-t’ax-ap-u-n. Transitive with an overt initiator
   Ayşe-dat this house-dat many glass PV-3appl-break-aug-caus-TS-pres.3ps
   Ayşe has broken many glasses in this house.

   b. Ham yataği-s dido bere-s u-ncir-ap-u-n. Agentive unergative
   this bed-dat many child-dat 3appl-sleep-caus-TS-pres.3ps
   Many children have slept in this bed.

   c. Ntsa-s u-gurgul-ap-u-n. Verb of emission
   sky-dat appl-clap-caus-TS-pres.3ps
   Thunder has clapped before.

   d. Ham zimari-s var u-mbar-ap-u-n. Internally caused change of state verb
   this doug-dat neg appl-rise-caus-TS-pres.3ps
   This dough has never risen.

   e. Hak dido bere-s m-u-lv-ap-u-n. Internally caused verb of directed motion
   here many child-dat PV-3appl-come-caus-TS-pres.3ps
   Many children have come here.

(52) a. *Ham oxori-s opşa cami u-t’ax-ap-u-n. Externally caused change of state verb
   this house many glass 3appl-break-caus-TS-pres.3ps
   Intended: Many glasses have been broken in this house.

   b. *Hak dido kartali-s m-u-lv-ap-u-n. Externally caused verb of directed motion
   here many letter-dat PV-3appl-come-caus-TS-pres.3ps
Intended: Many letters have come/arrived here.

(53) a. Ham oxori opşa camı i-t'ax-u d-onu.
    this house many glass  val-break-past.3ps PV-pres.3ps
    Many glasses have been broken in this house.

b. Hak dido kartali m-val-u d-onu.
    here many letter PV-come-past.3ps PV-pres.3ps
    Many letters have come/arrived here.

In EP constructions, the dative DP is conceptualized both as an experiencer and also as the potential initiator of the event, similar to the case of DM applicatives. What occurs in Spec, ApplP should be a DP, which can be interpreted same as the initiator of the event, as this construction strictly denotes an experience that the initiator of the event has. Therefore, undergoers of externally caused events cannot be introduced as dative arguments. Similar to DM constructions, we again assume that the dative applied argument is co-indexed with the initiator in Spec, vP. Unlike UC constructions, the initiator cannot be conceptualized as different from the dative applied argument in Spec, ApplP:

EP is also another applicative structure in PL, which strictly interacts with the initiator in Spec, vP. This further explains the restriction against the co-occurrence of the DM/UC applicatives with the EP. To express the EP of DM/UC constructions, EP applicative has to be introduced above the DM/UC applicative (41). The DP in Spec, ApplP2, i.e. EP, has to interact with the initiator in vP. However, the DP in Spec, ApplP1, that is, the DM/UC applicative intervenes and acts as a closer binder for the initiator in Spec, vP.

(54) \[
\begin{align*}
&\text{DP-introducing ApplP for EP} \\
&\text{DP-introducing ApplP for DM/UC}
\end{align*}
\]

Given the blocking effect, the only way to express the experiential perfect of DM/UC in PL is again through a periphrastic construction as in (55):

(55) Ma bere v-ort’i-şen doni dişk’a m-a-t’ax-u d-onu.
    I   child 1sbj-cop.past.3ps-abl since wood 1obj-appl-break-past.3ps PV-pres.3ps
    I have been able to split wood since I was a child.

5. Concluding Remarks:
As seen above, PL not only exhibits VP-selecting high applicatives, i.e. benefactives, recipients and possessors, but also applicatives introduced above EventP embedding the vP layer, where dative applied arguments interact with the initiator in Spec, vP, i.e. DM/UC and EP constructions.
As argued in Öztürk and Taylan (in press), the DM/UC and EP pattern in PL is in line with PL’ being an I(nitiation)-language in terms of Ritter and Rosen (2000), who introduce an event-based typology based on initiation versus delimitation. While I(nitiation)-languages define eventhood based on the initial bound of the event, D(elimitation)-languages focus on the terminal bound.

D-languages can: (i) group accomplishments with achievements, (ii) exhibit sensitivity to semantic and syntactic properties of objects, such as specificity, definiteness, case marking, person, (iii) use accusative for delimiting objects, (iv) show ergative splits based on perfective aspect/past tense, and (v) have object agreement not specified for person features.

I-languages can: (i) group accomplishments with activities, (ii) exhibit sensitivity to semantic and syntactic properties of subjects, such as agentivity and animacy, (iii) make grammatical distinction between topic and subject, (iv) show ergative splits based on the properties of the subject, (v) have subject and object agreement specified for person features, and (vi) have quirky case subjects, animacy hierarchies (Ritter and Rosen 2000:195).

PL as a good example of an I-language: (i) via the TS marker –am and -um, groups accomplishments with activities, (ii) exhibits sensitivity to the properties of the subject, using different case morphology for different subject types, (iii) has m-set object agreement system only specified for person features but not number, (iv) exhibits morphological sensitivity to the semantic properties of the initiator of the event in terms of internal versus external causation.

References: