

- d. xat'-av-s *a-xat'-v-in-eb-s* (3)
draw-TS-3sg,pres v-draw-TS-CAUS-TS-3sg,pres
'x draws y' 'he makes x draw y'

iii) appears on transitive or stative verbs with the added affected locative argument marked with dative.

- (3) a. t'exs *a-t'ex-s* (3)
break-3sg,pres v-break-3sg,pres
'x breaks y' 'x breaks y onto z_{dat}', 'x makes, by breaking, y go to z_{dat}'
b. c'er-i-a *a-c'er-i-a* (2)
write-stat-3,sg v-write-stat-3,sg
'x is written' 'x is written onto y_{dat}'

iv) appears on trivalent verbs where the dative is not immediately understood as a cause, affected location or possessor-beneficiary.

- (4) a. *a-dar-eb-s* (3)
v-compare-TS-3sg,pres
'he compares x to y'
b. *a-čven-eb-s* (3)
v-show-TS-3,sg,pres
'he shows x to y'
c. *a-p'irispir'ir-eb-s* (3)
v-juxtapose-TS-3sg,pres
'he juxtaposes x to y' [pirispir] Fr. face à face
d. *a-nd-ob-s* (3)
v-'faith'-TS-3,sg,pres
'he entrusts x to y, with y' Fr. confier
e. *a-čuk-eb-s* (3)
v-gift-TS-3,sg,fut
'he gifts (gives as a gift) x to y'

(II) e- (2)

i) occurs on non-active forms that occur with benefactive or locative dative arguments. The absolute forms of these passives are derived via i-prefixation (cf. infra)

- (5) a. mela-s *da-e-c'v-a* nazuk-i [*da-i-c'v-a*]
fox-DAT prev-v-burn-AOR brioche-NOM prev-nonact-burn-AOR
'The brioche burned on the fox'
b. mak'aron-i *mi-e-c'eb-a* k'edel-s [*mi-i-c'eb-a*]
spaghetti-NOM prev-v-glue-AOR wall-DAT prev-nonact-glue-AOR
'The spaghetti got stuck onto the wall'

ii) occurs on non-active forms that occur with a commitative-reciprocal dative

- (6) a. *e-tamaš-eb-a* mgel-s b. *e-laparak-eb-a* sp'ilo-s
v-play-TS-3sg,pres wolf-DAT v-speak-TS-3sg,pres elephant-DAT
'x is playing with the wolf' 'x is talking with the elephant'

iii) occurs on non-active forms with experiencer subjects

- (7) tagv-s *da-e-sizmr-a* bueb-i
mouse-DAT prev-v-dream-AOR owls-NOM
'the mouse dreamt of owls'

iv) occurs on all pluperfect forms with dative subjects

- (8) tagv-s bu unda *e-k-o* / *mo-e-t'q'u-a*
mouse-DAT owlNOM must v-praise-PLP/ prev-v-cheat-PLP
'the mouse must have praised the owl/have cheated on the owl'

(III) i-

i) occurs on reflexive benefactive/locative/causative forms which convey a self-oriented event (the subject/'s body is affected). (2)

- (9) a. tagv-ma q'veli *da-i-xat'a* [da-xat'a]
mouse-ERG cheese-NOM prev-v-draw-AOR
'the mouse drew himself a (picture of) cheese'
b. bu-m sombrero *da-i-xur-a* tavze [da-a-xura]
owl-ERG sombreroNOM prev-v-cover-AOR head-on
'the owl put on (covered with) himself a sombrero, on the head'
c. tagv-ma is bu *da-i-vic'q'a* [da-a-vic'q'a]
mouse-ERG that owlNOM prev-v-forget-AOR
'the mouse forgot the owl'

ii) occurs on non-active forms (absolute forms of 2i), marks non-active voice. (1)

- (10) a. nazuk-i *da-i-c'v-a*
brioche-NOM prev-v-burn-AOR
'The brioche burned'
b. mak'aron-i *mi-i-c'eb-a* k'edel-ze
spaghetti-NOM prev-v-glue-AOR wall-on
'The spaghetti got stuck on the wall'

(IV) u-

i) occurs on transitive verbs which have a benefactive/possessive dative argument disjoint from the subject ('non self-oriented' events). (3)

- (11) tagv-ma bu-s nazuk-i *da-u-xat'a* / *da-u-c'v-a*
mouse-ERG owl-DAT brioche-NOM prev-v-draw-AOR/ prev-v-burn-AOR
'the mouse burned/drew the brioche for/on the owl'

ii) occurs on non-active verbs formed by *d-* suffix and on affixless non-actives that take a benefactive/possessive dative. (2)

- (12) tagv-s bu *ga-u-lamaz-d-a* / *da-u-axlov-d-a*
mouse-DAT owlNOM prev-v-beautiful-nonact-AOR/ prev-v-close-nonact-AOR

‘the owl became beautiful/became closer (s’est rapproché) to/for the mouse’

iii) occurs on static verbs with a dative argument (2)

- (13) a. bu-s tagv-i *u-x'i-s* gverdit
 owl-DAT mouse-NOM v-sit-3sg,pres by side
 ‘the mouse sits next to the owl’
 b. sulugun-s cudi sun-i *u-di-s*
 cheese-DAT bad smell-NOM v-go-3sg,pres
 ‘bad smell comes from the suluguni cheese’

iv) occurs on stative forms with experiencer subjects. (3)

- (14) bu-s *u-nd-a / u-q'var-s* nazuk-i
 owl-DAT v-wish-3sg,pres/ v-love-3sg,pres brioche-NOM
 ‘the owl wants/loves the brioche’

v) occurs on perfect forms with dative subjects (present forms of 2iv) (2)

- (15) bu-s *da-u-c'er-i-a / u-targmn-i-a* lekseb-i
 owl-DAT prev-v-write-prt-3sg,pres/ v-translate-prt-3sg,pres poems-NOM
 ‘the owl has (apparently) written/translated poems’

Some conclusions.

- a- occurs on transitive/causative verbs and does not contribute to the expression of TAM. It does not require the presence of the dative argument, but allows it. (cf. *faire* in French causatives)
- i- does not participate in building TAM forms. It cannot occur with the dative argument.
- as a- flags transitivity, and i- flags non-active forms, they may be considered as voice affixes.
- e- does not occur in active transitive verbs. It must occur with a dative argument whose meaning is not semantically restricted.
- u- occurs in transitive and non-active forms and must occur with a dative argument.
- as u- and e- always occur with a dative argument, they can be compared to applicatives.
- u- and e- are not always optional on a verbal form, unlike applicatives.
- affixes that require the dative argument (u-, e-) may participate in conveying TAM specificities (u- perfect, e- pluperfect).

3. ქვევის-‘change’

In Kartvelian grammatical tradition the four vowels are named versionizers because they express the grammatical category of Version. The category of Version (ქვევის-‘change’) was introduced by Shanidze (1926/1971). For Shanidze, Georgian has three versions which specify the relation of possession/destination that holds between the direct object and another argument. If the object is not ‘for’ anyone, the verb is marked for neutral version (*saarviso*-for no one); if the object is ‘for’ the subject (*satarviso*, for self) the verb is marked for subjective version; and if the object is destined for someone disjoint from the subject the version is objective (*saxxviso*-for other).

- (16) Neutral version marker — *-θ-*; *-a-*
 Subjective version — *-i-*
 Objective version — *-u-*

For Vogt (1971), Georgian also has Locative Superessive version (cf. Hewitt 1995): the event causes the object to come into contact with a certain surface/location marked with dative. Superessive, *sazedaŋ* is not a type of Version for Shanidze, but yet another category, Situation. The reason is mostly semantic, locative relation and possessive/benefactive relation are different semantic relations and should correspond to different grammatical concepts. Shanidze views locative relation between the object and another argument to be conceptually closer to the one that normally holds between two arguments of ditransitive verbs.

(17) Locative version — *-a-*

Hewitt (1995:188) “versional *a-* that has no indirect object associated with it will be called Neutral Version, whereas one that does have such an indirect object will be called Locative Version, even if a diachronic analysis would necessitate the assumption that a given *a-* was the Locative Version exponent and that over time its indirect object has disappeared”. This definition of *-a-* is problematic, as *-a-* occurs with causative predicates with dative causees which are devoid of all locative semantics and have different structural properties than locative datives.

- (18) a. NV bu-m leksi da-Ø-c'er-a
 owl-ERG poem-NOM prev-NV-write-AOR
 ‘the owl wrote a poem’
 SV bu-m leks-i da-i-c'er-a
 owl-ERG poem-NOM prev-SV-write-AOR
 ‘the owl wrote himself a poem’
 OV bu-m irem-s leks-i da-u-c'er-a
 owl-ERG deer-DAT poem-NOM prev-OV-write-AOR
 ‘the owl wrote a poem for a deer’
 LV bu-m lod-s leks-i da-a-c'er-a
 owl-ERG rock-DAT poem-NOM prev-LV-write-AOR
 ‘the owl wrote a poem onto a rock’
- b. NV txa-m nazuk-I gamo-a-cx-o
 goat-ERG brioche-NOM prev-NV-bake-AOR
 ‘the goat baked a brioche’
 SV txa-m nazuki gamo-i-cxo
 goat-ERG brioche-NOM prev-SV-bake-AOR
 ‘the goat baked himself a brioche’
 OV txa-m nazuki gamo-u-cx-o bu-s
 goat-ERG brioche-NOM prev-OV-bake-AOR owl-DAT
 ‘the goat baked the owl a brioche’
 LV txa-m nazuki tone-s da-a-cxo
 goat-ERG brioche-NOM oven-DAT prev-LV-bake-AOR
 ‘the goat baked a brioche, by slapping it on the tandoori oven’

A number of scholars (Rostovtsev-Popiel 2015, Hewitt 1995, a.o.) consider *e-* to be the exponent of Relative Version (RL): a dative argument with a variety of semantic roles (location, benefactive, goal) is related to the subject of a non-active verb. (cf. (II))

4. Meaning(s) of versionizers

The term Version ‘change’ in its original definition implies a modification of the number of arguments with respect to the basic neutral form. However, when each of the above affixes appears on the verb, it can not be predicted whether a neutral (or another) counterpart exists and if it does exist what its meaning will be. In other words, versionizers do not always signal the presence of an optional argument and cannot indicate its meaning. The meaning of the argument they flag is computed structurally. Consider a well-behaved verb *close*:

- (19) a. txa-m k’ari da-ø-xur-a
goat-ERG door-NOM prev-NV-close-AOR
‘the goat closed the door’
b. *txam k’ari da-i-xur-a*
goat-ERG door-NOM prev-SV-close-AOR
‘the goat closed himself the door’
c. txa-m bu-s k’ari da-u-xur-a
goat-ERG owl-DAT door-NOM prev-OV-close-AOR
‘the goal closed the door for the owl’
- (20) a. txa-m sombrero da-a-xur-a bu-s
goat-ERG sombreroNOM prev-LV(?) -close-AOR owl-DAT
‘the goat put (covered with) the sombrero on the owl’
b. *txa-m sombrero da-i-xur-a*
goat-ERG sombreroNOM prev-SV-close-AOR
‘the goat put on the sombrero (on himself)’
c. *txa-m sombrero da-u-xur-a bu-s
goat-ERG sombreroNOM prev-OV-close-AOR owl-DAT
‘the goat put on the hat for the owl’
‘the goal pleased the owl by putting the sombrero on the owl’s head’
d. #txa-m sombrero da-ø-xur-a
goat-ERG sombreroNOM prev-NV-close-AOR
‘*the goat *put on/covered with/close* the sombrero’

Do (19b) and (20b) have the same structure? Can we talk about the subjective version in 21b, when the sombrero is not put for the subject’s *benefit* (*version*), but on the subject’s *surface* (head) (*situation*)? Rather, it seems that *daaxura* (put on/cover with) and *daxura* (close) are predicates with different event structures, even if they share the root *xur*. *Daaxura* is a locative verb where the location is an obligatory argument of the verbal template. (cf. Hale & Keyser 2002).

- (21) a. [_{VP} v [_{VP} DP_{theme} [V PP_{loc}]]]
b. [PP_{loc} P DP_{dat}]

So the versionizer *i-* sometimes signals the presence of the benefactive reflexive and sometimes of the locative reflexive. Consider the verb to pocket (*empocher*). As one generally pockets into one’s pocket, we have here a perfect locative-reflexive predicate.

- (22) ninom 100 evro ča-i-jiba (7200 hits in Google)
Nino-ERG 100 eurosNOM prev-SV-pocket-AOR
‘Nino pocketed 100 euros’
(?)ča-u-jiba, (288 hits in Google), *chajiba, *chaajiba

The behaviour of the versionizer *e-* is even more extreme, as in most cases, *e-* occurs with an *obligatory* dative argument. (In the examples below, I gloss *i-* in non-active forms as [nact], and will continue to gloss *i-* in active forms as SV)

- (23) a. nazuk-i da-i-c'v-a/ da-i-pxšvn-a/ da-i-k'arg-a
 brioche-NOM prev-nact-burn-AOR/ prev-nact-crumble-AOR/prev-nact-lose-AOR
 'the brioche burned/crumbled/got lost'
 b. bu-s nazuk-i da-e-c'v-a/ da-e-pxšvn-a/
 owl-DAT brioche-NOM prev-RV-burn-AOR/prev-RV-crumble-AOR/
 da-e-k'arg-a
 prev-RV-lose-AOR
 'the brioche burned/crumbled/got lost on the owl (maleficiary)'
- (24) a. txa-s da-e-sizmr-a/ mo-e-nat'r-a/ mo-e-čven-a kat'a
 goat-DAT prev-RL-dream-AOR/ prev-RL-desire-AOR/ prev-RL-show-AOR catNOM
 'the goat dreamt of/missed/thought to see (imagined he saw) the cat'
 b. kat'a *da-i-sizmra/ ?*mo-i-nat'ra/ *mo-i-čvena
 catNOMprev-nact-dream-AOR/ prev-nact-desire-AOR/prev-nact-show-AOR
 'the cat was dreamt/was missed/was imagined(?)'
- (25) a. tagv-i mo-e-per-a/ e-lap'arak'-a/ e-saubr-a irem-s
 mouse-NOM prev-RL-fondle-AOR/ RL-speak-AOR/ RL-talk-AOR deer-DAT
 'the mouse fondled with/spoke with/talked (had a conversation) with the deer'
 b. *irem-i mo-i-per-a/ i-lap'arak'-a/ i-saubr-a
 deer-NOM prev-nact-fondle-AOR/ nact-speak-AOR/ nact-talk-AOR
 'the deer was fondled/spoken to/talked with'

Identifying *e-* as a versionizer could be justified in (22b) where it *modifies* the neutral form without changing the lexical sense of the verb.

Versionizing (in Shanidze's definition) is just a small part of the labour carried out by these affixes even if we limit ourselves to argument structure realisation of predicates.

5. Structural height(s) of versionizers in nonactive forms.

The most striking evidence that there may not be one structure associated with the morpheme *e-* comes from the hierarchical asymmetries between the nominative and the dative argument. These hierarchies shed light to the patterns of plural marking in DAT-NOM non-active forms, which allow nominative or dative plural agreement.

(26) DAT>NOM

- a. txa-s da bu-s ertmanet-i mo-e-nat'r-a-t/ da-e-sizmr-a-t
 goat-DAT and owl-DAT each-other-NOM prev-RL-wish-AOR-pl/prev-dream-AOR-pl
 da-e-k'arg-a-t / da-e-vas-a-t
 prev-RL-lose-AOR-pl/ prev-RL-'desire'-AOR-pl
- b. *txa da bu ertmanet-s mo-e-nat'r-es /
 goat-NOM and owl-NOM each-other-DAT prev-RL-wish-AOR,3pl/
 da-e-sizmr-es / da-e-k'arg-es / da-e-vas-es
 prev-RL-dream,AOR,3pl / prev-RL-lose-AOR,3pl / prev-RL-'desire'-AOR,3pl
 'the goat and the owl missed /dreamt of /lost/'digged' each other'

(27) *NOM>DAT*

a. txa da bu ertmanet-s e-čxub-es/ e-lap'arak'-es/
goatNOM and owlNOM each-other-DAT RL-fight-AOR,3pl/RL-speak-AOR,3pl/
da-e-mal-es
prev-RL-hide-AOR,3pl

b. *txa-s da bu-s ertmanet-i e-čxub-a-t / e-lap'arak-a-t/
goat-DAT and owl-DAT each-other-NOM RL-fight-AOR-pl/RL-speak-AOR-pl/
da-e-mal-a-t
prev-RL-hide-AOR-pl
'the goat and the owl fought with each other/spoke with each other/hid from each other'

e- is semantically very underspecified and can spell out the attachment of the dative argument in different verb frames. In (26) the dative can be generated in the locative non-active form, while in (27), the dative attaches higher, as an experiencer/benefactive/possessive argument.

We have seen that u- can also surface in non-active forms (cf. (12)). u- is the marker of OV and is attributed benefactive meaning. It also licenses subjects in the perfect and experiencers (14-15). So we can predict that nonactive forms with u- must show DAT>NOM asymmetry. The prediction does not hold, u- just like e- allows for both hierarchies.

(28) *DAT>NOM* (dative cannot be dropped)

a. txa-s da bu-s ertmanet-i še-u-q'var-d-a-t
goat-DAT and owl-DAT each-other-NOM prev-OV-love-nact-AOR-pl
'the goat and the owl fell in love with each other'

b. *txa da bu ertmanet-s še-u-qvar-d-a-t
goatNOM and owl e.o-DAT prev-OV-love-nact-AOR-pl
'the goal and owl fell in love with each other'

(29) *NOM>DAT* (dative can be dropped, u- behaves as a versionizer)

a. txa da bu ertmanets še-u-rig-d-nen/ ga-u-braz-d-nen
goatNOM and owlNOM e.o-DAT prev-OV-order-nact-AOR/prev-OV-anger-nact-AOR

b. *txa-s da bu-s ertmanet-i še-u-rig-d-a-t/ga-u-braz-d-a-t
goat-DAT and owl-DAT e.o.NOM prev-OV-order-nact-AOR-pl/prev-OV-anger-nact-Apl
'the goat and the owl made up with each other/got angry at each other'

The data in (28-29) show that u- does not always signal the presence of the high dative and can signal, just like e-, the presence of the low dative with locative meaning.

Conclusion:

- preradical u- and e- that introduce dative arguments in non-active forms are not endowed with specific meaning, and signal the presence of experiencers/benefactives as well as locations. They share the last property with a- in Locative Version.
- preradical i- also signals the reflexive benefactive and the reflexive locative implicit argument in active forms.
- in nonactive forms, datives can be lower than the nominative subject or higher than the nominative subject.
- low datives tend to be semantically homogenous and have locative meanings, while high datives are experiencers or benefactives.

6. Versionizers and the dative argument in transitive clauses.

In many languages optional indirect arguments are introduced by applicatives, and some languages have several applicatives, each introducing an optional argument with a specific lexical meaning (McGinnis 2016, Peterson (2007) a.o). For example, Kinyarwanda has distinct locative, benefactive and instrumental applicatives. We may attempt to propose, for transitive clauses, that Objective Version and Locative Version are two types of different applicatives: *u-*: benefactive/possessive applicative and *a-*: locative applicative.

6.1. Questions on datives in transitive clauses.

- 1) do all dative arguments require a versionizer on the verb?
- 2) can datives be stacked, regardless the fact that there is only one morphological slot for versionizers? Can a sentence contain both a locative dative and a benefactive dative?
- 3) if the answer to 2 is affirmative
 - what is the hierarchy between different types of datives? Is benefactive always higher than locative?
 - is the structural hierarchy between the two reflected morphologically, i.e. does the higher of the datives trigger the matching versionizer on the verb?
 - how are these datives positioned with respect to the object? All higher, all lower, some higher and some lower?
- 4) if the answer to 2 is negative, and only one dative may appear per clause,
 - where is it generated? Are benefactives higher than the object, and locatives lower than the object? (we just saw that in nonactive forms, locative datives are lower than the subject, while experiencers are higher than the subject).
 - is there a correspondence between the meaning of the dative argument and the versionizer? (benefactives with *u-*, and locatives with *a-*)
- 5) as applicatives are usually employed to add an optional dative argument, what happens in the clause when the presence of the dative argument is required?

6.2. Datives without versionizers.

Boeder (2005:34) states that “unspecified indirect objects normally belong to the valency of the root (as with “to give”), non-neutral versions mostly specify additional arguments; in this sense they increase valency like causatives.”

Shanidze (1971) refers to versionless datives as *satanao situacia* (accompanying situation), and classifies them with *a-* type locative datives.

Datives may occur with versionless predicates.

- (30)a. melam barati mi-s-c'era katam-s
fox-ERG note-NOM prev-3O-write-AOR hen-DAT
'the fox wrote a note to a hen'
- b. irem-ma tagv-i mo-(h)-p'ar-a kat'a-s
deer-ERG mouse-NOM prev-3O-steal-AOR cat-DAT
'the deer stole the mouse from the cat'
- c. tagv-ma kva mi-s-c-a bu-s
mouse-ERG stoneNOM prev-3O-'give'-AOR owl-DAT
'the mouse gave the owl a stone'

Datives related to the theme by inalienable possession do not require, and are even incompatible, with versionizers.

- (31)a. tagv-ma pex-i da-(h)-ban-a ministr-s (#da-u-ban-a)
 mouse-ERG foot-NOM prev-3O-wash-AOR minister-DAT
 ‘the mouse washed the feet to the minister’
- b. bu-m k’iser-I mo-t’ex-a ministr-s (#mo-u-t’ex-a)
 owl-ERG neck-NOM prev-break-AOR minister-DAT
 ‘the owl broke the minister’s neck’
- c. tagv-ma tma mo-(s)-č’r-a cxens (#mo-u-c’r-a)
 mouse-ERG hairNOM prev-3O-cut-AOR horse-DAT
 ‘the mouse cut the hair on the horse’
- d. *bu-m mamamis tav-i mo-(s)- č’ra*
 ‘the owl cut his father’s head’ ‘the owl caused shame of his father’
- e. *irem-ma bu-s creml-i mo-c’mind-a (#moucmind-a)*
 ‘the deer wiped the owl his tears’

- (32) tagv-ma p’ur-i da-u- č’ra/ mo-u-t’ex-a bu-s
 mouse-ERG bread-NOM prev-OV-cut-AOR/ prev-OV-break-AOR owl-DAT
 ‘the mouse cut/broke the bread for the owl’

These facts cast doubt on the idea that (i) only ditransitive verbs appear with versionless datives (cf. Boeder, supra) and that (ii) u- introduces benefactive/possessors. When the possession is inalienable (entailed), u- is not required.

Testelet (1984): u- introduces a ‘counteragent’, ‘affected argument’, where the possessive reading is one of the plausible and pragmatically most salient readings. (cf. Gurevitch 2007).

Versionless datives are also possible in non-active forms:

- (33)a. tagv-s h-kon-da bevri pul-i
 mouse-DAT 3O-have-Past much moneyNOM
 ‘the mouse had much money’
- b. mela-s da-bral-d-a es današaul-i
 fox-DAT prev-fault-nact-AOR this crime-NOM
 ‘this crime was blamed on the fox’
- c. *bu-s mo-s-c’on-s p’ariz-i*
 ‘the owl likes Paris’
- d. *tagv-s mo-šiv-d-a/ še-civ-d-a, / še-rxcv-a*
 ‘the mouse got hungry/ got cold/ got ashamed’

Georgian is different from Svan, where a- is necessary to license a dative argument.

In Georgian too, some versionless and a- datives are quasi synonyms, yet in cases of inalienable possession versionless forms are used:

- (34)a. mo-t’exa — mo-a-t’ex-a
 prev-break-AOR — prev-LV-break-AOR
- b. mo-s- č’r-a — mo-a- č’ra
 prev-3O-cut-AOR — prev-LV-cut

- c. mo-h-glij-a — mo-a-glij-a
 prev-3O-rip-AOR — prev-LV-rip-AOR
 d. da-s-c'q'vit'a (guli) — da-a-c'q'vit'a (nervebi)
 prev-3O-pluck-AOR (heart) — prev-LV-pluck-AOR (nerves)

6.3. Stacking of dative arguments

It is normally impossible to have two datives per clause.

- (35)a. *am kal-s v-u-č'mi-e-t papa bavšv-s
 this woman-DAT 1-OV-feed-AOR-pl porridgeNOM child-DAT
 'we fed the porridge to the child for this woman'
 b. ?*levan-s mi-v-u-b-i-t irem-i xe-s
 Levan-DAT prev-1-OV-tie-AOR-pl deer-NOM tree-DAT
 'we tied the deer to the tree for Levan'

But it is sometimes possible to have a 1st person u- benefactive added to the verb with the locative dative.

- (36)a. **mi-m-i-xat'-e** mze am saxl-s, ra! (mi-a-xat'-e)
 prev-1-OV-draw-IMP sunNOM this house-DAT, please
 'draw me a sun to this house, please!'
 b. **mi-m-i-bi-t** es irem-i xe-s (mi-a-b-it)
 prev-1O-OV-tie-IMP this deer-NOM tree-DAT
 'tie me this deer to the tree!'
 c. *gtxov gada-m-i-c-e es c'igni masc'avlebls (Boeder 1969) (gada-sc-et)*
 'please pass me this book to the teacher'
 d. *bavšvs m-i-č'mi-e-t, ra (a-č'amet)*
 'Feed me my child, please!'

This suggests that benefactives are introduced higher than locative datives. In (36d), the absolute form is the causative of 'eat'-feed. Causees are hence lower than benefactives and on par with locative datives with respect to benefactive u- datives.

Indeed, it is possible to have benefactives of transitive causatives, but unlike the situation in (36), the dative causee is not expressed.

- (37)a. bu-m saxl-i da-a-lag-eb-in-a mosamsaxure-s
 owl-ERG house-NOM prev-NV-tidy-TS-caus-AOR servant-DAT
 'the owl had the servant clean the house'
 b. bu-m tagv-s saxl-i da-u-lag-eb-in-a (*mosamsaxure-s)
 owl-ERG mouse-DAT house-NOM prev-OV-tidy-TS-caus-AOR (servant-DAT)
 'the owl had the house cleaned for the mouse (by the servant)'
 (38)a. *bu-m tagv-s kat'a da-u-xat(v)-in-a (*m'xat'vars)*
 'the owl had the cat painted for the mouse'
 b. *kat'a-m bu-s bude a-u-šen-eb-in-a (*arxit'ekts)*
 'the cant had the nest constructed for the owl'

6.4. Structural heights of benefactive, causee and locative datives.

If benefactive datives are introduced higher than locative datives and causees, can we say that non-benefactive datives are all structured alike? Are causees and locative datives lower than the theme?

Causees are higher than the embedded theme.

- (39) a. am ambav-ma mat ertmanet-i
 this news-ERG themDAT each other-NOM
 b. *am ambav-ma isini ertmanet-s.....
 this news-ERG themNOM each other-DAT
 [...da-a-vic'q'-a/ ga-a-xsen-a/ še-a-dzul-a/
 prev-NV-forget-AOR/ prev-NV-remember-AOR/ prev-NV-hate-AOR
 še-a-q'var-a/mo-a-k'vl-ev-in-a]
 prev-NV-love-AOR/prev-NV-kill-TS-caus-AOR
 'this news made them forget/remember/hate/love/kill each other'

Locative datives are lower than the theme.

- (40) a. globalizacia-m didi da p'at'ara kveq'neb-i mi-a-b-a ertmanet-s
 globalisation-ERG big and small countries-NOM prev-LV-tie-AOR each-other-DAT
 'the globalisation tied small and big countries to each other'
 (*kveq'neb-s ertmanet-i)
 countries-DAT each-other-NOM

 b. *linchma miakera ertmanets daukavshirebeli ep'izodebi (*epizodebs ertmaneti)*
Lynch sewed unrelated episodes to each other
 c. *titebi ertmanets miac'eba mamam (*titebs ertmaneti)*
Father glued the fingers to each other

Verbs of comparison and likening also show NOM>DAT asymmetry.

They can be referred to as verbs of proximity (with a figurative or directed motion towards/from the standard). I will analyse them as locative verbs, with the same structure as *tie*.

- (41) a. k'u-m isini ertmanets.....
 turtle-ERG they-NOM each-other-DAT
 b. *k'u-m mat ertmanet-i....
 turtle-ERG theyDAT each-other-NOM
 [...še-a-dar-a/ mi-a-msgavs-a/ da-a-pirispir-a]
 prev-LV-compare-AOR/prev-LV-liken-AOR/ prev-LV-juxtapose-AOR
 'the turtle compared/likened/juxtaposed them to each other'

However, things get murky and interesting when the verb *juxtapose* is considered. It is actually used *with the same binding properties and with the same meaning* much more frequently with u- than with a-. *compare* is, on the contrary much more frequent with a-, but still possible with u-.

- (42)
juxtapose with a- 2500 hits *da-a-p'irisip'ir-a*
juxtapose with u- 18400 hits *da-u-p'irisip'i-ra*

compare with a- 103000 hits *še-a-dara*
compare with u- 1790 hits *še-u-dara*

liken with u- 3 hits *mi-u-msgavs-a*
liken with a- 7100 hits *mi-a-msgav-sa*

bring close with a- 7170 hits *da-a-axlov-a*
bring close with u- 8 hits *da-u-axlov-a*

(43) avt'or-ma da-u-p'iris-p'ir-a ertmanet-s kalak-i da sopel-i
author-ERG prev-OV-juxtapose-AOR each other-DAT' town-NOM and village-NOM
'the author juxtaposed the town and the country to each other'

Problem: just as clear locative datives can be signalled by u-, causees can be signalled by u-, too.

(44) (cf. 39)
remind with a- 2700 hits *gaaxsena*
remind with u- 7370 hits *gauxsena*

Conclusions:

- benefactive datives are higher than causees and locative datives.
- benefactive datives are signalled by u-.
- locative datives are signalled by a- (locative version).
- locative datives are lower than the direct object.
- causee datives are signalled by a- (neutral version?)
- causee datives are higher than the direct object
- *But locative and causee datives can also be signalled by u-.*

Structures for causees and locative datives.

(45) [_{VP} v [_{VP} **NP_{dat}** [_{VP} **NP_{obj}** V]]] NP_{dat}-causee
(46) [_{VP} v [_{VP} [**NP_{obj}** [V [_{PP} P \emptyset **NP_{dat}**]]]]] NP_{dat}- location/goal *Locative Version*

Notice that the locative structure is also considered as a type of causative and represents a caused motion event. In this sense, a- can be taken to signal all verbs where the root spells out the change rather than the manner (the lower subevent rather than higher subevent). For Shanidze, all 'second-degree' [derived] transitive verbs have a-.

Structures for benefactives

(47) a. [_{VP} v [**NP_{dat}** [**NP_{obj}**]]] benefactives in simplex transitives
b. [_{VP} v [**NP_{dat}** [_{VP} V **NP_{obj}**]]] benefactives in 'derived' causatives

Benefactives are optional and licensed by *u-* which is not a dedicated benefactive morpheme (applicative) but signals that the clause contains an additional event participant.

6.5. Versionizers and ditransitives.

Verbs of communication have u-

- (48) a. u-txr-a mas
 OV-say-AOR himDAT
 ‘x said to him’
- b. u-amb-o mas
 OV-inform-AOR himDAT
 ‘x informed him’
- c. da-u-rek’-a mas
 prev-OV-ring-AOR himDAT
 ‘x phoned him’
- d. da-u-dzax-a mas
 prev-OV-call-AOR himDAT
 ‘x called him’
- e. mo-u-q’va mas
 prev-OV-tell-AOR himDAT
 ‘x told him (a story)’
- f. ča-u-čurčul-a mas
 prev-OV-murmur-AOR himDAT
 ‘x murmured to him’
- g. u-mġer-a mas
 OV-sing-AOR himDAT
 ‘x sang to him’
- h. a-u-xsna mas
 prev-OV-explain-AOR himDAT
 ‘x explained to him’

Verbs of sending have u-. These forms are all derived from a- caused motion verbs that take PP arguments.

- | | | | | | |
|--------|-----------------------|--------|---|--------------------|-----------------------------|
| (49)a. | ga-u-gzavn-a | mas | — | ga-a-gzavn-a | mas-tan |
| | prev-OV-send-AOR | himDAT | | prev-NV-send-AOR | him-with |
| | ‘x sent y to him’ | | | | |
| b. | da-u-brun-a | mas | — | da-a-brun-a | mas-tan |
| | prev-OV-return-AOR | himDAT | | prev-NV-return-AOR | him-with |
| | ‘x returned y to him’ | | | | |
| c. | gada-u-gd-o | mas | — | gada-a-gd-o | mis-k’en |
| | prev-OV-throw-AOR | himDAT | | prev-NV-thros-AOR | him _{GEN} -towards |
| | ‘x threw y to him’ | | | | |

6.5.1. Hierarchies.

Ditransitive verbs consistently show the two hierarchies DAT>NOM, NOM>DAT. Both hierarchies are possible with a- ditransitives (*show, gift*) and with u- ditransitives (*show, send, return*)

Show:

a-čven-a 585000 hits

u-čven-a 99800 hits

- (50) a. txa-m bueb-s ertmanet-i a-čven-a/ u-čven-a
 goat-ERG owls-DAT each-other-NOM NV-show-AOR/OV-show-AOR
 ‘the goat showed the owls each other’
- b. txa-m bueb-i ertmanet-s a-čven-a/ u-čven-a

goat-ERG owls-NOM each-other-DAT LV-show-AOR/OV-show-AOR
 'the goat showed the owls to each other'

(50a) a- dative is the causee ; u- dative is the benefactive

(50b) a- dative is the location, underlyingly a PP ; u-dative is the location, underlyingly a DP

Send:

(51) a. k'u-m txeb-i ertmanets mi-u-gzavn-a
 turtle-ERG goats-NOM each-other-DAT prev-OV-send-AOR
 'the turtle sent the goats to each other'

b. upal-ma txeb-s ertmaneti gamo-u-gzavn-a
 god-ERG goat-DAT each other-NOM prev-OV-send-AOR
 'God sent the goats each other'

(52) a. ?am ubedureba-m čveni txeb-i ertmanet-s da-u-brun-a
 this misfortune-ERG our goats-NOM each other-DAT prev-OV-return-AOR
 'this misfortune returned our goats to each other'

b. am ubedurebam txeb-s ertmaneti da-u-brun-a
 this misfortune-ERG goats-DAT each other-NOM prev-OV-return-AOR
 'this misfortune returned our goats each other'

General conclusions

- Ditransitives confirm what we have already learned: dative arguments show both hierarchies with respect to the object in transitive clauses, and the subject in non-active clauses
- u- can appear with low datives and with high datives.
- in low datives, u- signals the addition of a *DP* [nominal argument] to the locative structure, in high datives, u- signals the addition of the benefactive *DP*.
- If u- is the exponent of the applicative head, that applicative must be sometimes introduced very low, above the PP and lower than the theme, and sometimes higher. Theoretically, this conclusion is compatible with the framework proposed by Wood & Marantz (2015), where they depart from the term applicative and introduce the i-heads.
- a- can appear with low datives and with high datives. With low datives, a- signals that the event is structured as a caused motion event where the dative argument is the goal, licensed by the event skeleton (null P?).
- with high datives, a- signals the causative structure where the dative argument is the causee. The dative case can be assigned structurally, in the same way as the dative is assigned to à-causees in French causatives.
- a- signals a complex VP and hence flags causative structures. It is the exponent of v.

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