# Paths to datives

**Background**. According to lexicalist theories, predicates select from one up to three arguments. Until the late 80s, three place predicates have posed a problem for their syntactic structuration based on the binary branching. The two types of solutions that were proposed: (i) small clause approach, where the predicate selects a clause in which two internal arguments are locally linked (Kayne 1984 a.o.) and (ii) the predicate is decomposed into two (or more) syntactic heads each selecting one argument (Larson 1988 a.o.) cannot predict why the number of internal arguments should be limited to two, and cannot account for the fuzzy argument/adjunct status of the third participant either. These issues are well-illustrated by ditransitive verbs: cross-linguistically, beyond core cases such as *give, sell, hand,* it is difficult to decide whether the Recipient/Goal is a true argument of verbs such as *write, throw*. Moreover, many languages treat Recipients on a par with possessors and beneficiaries (e.g. from German: (*weil*) *Anne ihm*$_{DAT}$ *den Teller zerbrach* '*Anne broke a dish for him'; (weil) ich schrieb ihr*$_{DAT}$ *die Antwort* '*I wrote her the answer' vs. (weil) ich ihm*$_{DAT}$ *ein Buch gab* '*I gave him a book'* (examples from McIntyre 2006), (see Malchukov et al. 2010).

**Claim**. We propose a new look at the distinction between lexical and non-lexical – or core and non-core – third participants marked with dative case (or by a dative-like preposition), which is largely based on Beavers' (2011) analysis of ditransitive verbs as one aspectual class including a scalar change along a path. Assuming that predicates are associated with a single scale dimension, we claim that "core-datives" realize an initial or final point on a path scale on which the theme argument is located as the result of change, whereas "non-core datives" are optional event participants that may be associated with predicates denoting other types of scalar change: property scales, extent/volume scales; they are not event delineators, directly engaged in a specific scale construal. We show that this semantic divide can be traced by various syntactic and morphological means in typologically unrelated languages.

**Data I. Georgian *a-* dative constructions**. Canonical ditransitive verbs obligatorily contain the verbal affix *a-* (or its ø-allomorph), whose presence licenses a dative marked DP, unambiguously interpreted as a recipient:

(1)  Vanom       a-txova/a-chuka /a-chvena    C'igni       gogos
      Vano.erg   lent/granted/showed          book.abs    girl.dat
      'Vano lent/granted/showed the girl a book.'

The *a-* affix may appear, systematically, with a class of otherwise transitive verbs (e.g. creation verbs, but not only), (2a), yielding a ditransitive construction, where the dative marked DP denotes a surface from which or to which the theme is caused to move (2b).

(2) a.  Vanom       da=C'era   leksi        b. V.       da=a-C'era leksi       gogos / tixas
        Vano.erg   wrote       poem.abs     V.erg     wrote       poem.abs   girl.dat / clay.dat
        'Vano wrote a poem.'                          'V. wrote a poem on a girl (as a surface) / on clay.'

(2b) does not mean that the dative marked DP is a benefactor of any kind. It is not restricted to humans. The dative DP is locational, the poem was applied on the girl/clay by means of writing. Importantly, in Georgian, change of state predicates (associated with a property scale) are not compatible with these "ditransitive constructions": while deadjectival predicates are completely excluded, in spite of the presence of the affix *a-* (3a), canonical verbal change of state predicates such as *break, cut, pulverize* give rise to a reading where the verbal root is interpreted as denoting the manner component of a bi-eventive predicate, not its result component (3b), (cf. Levin & Rappaport-Hovav 2010).

(3)a. *Vanom      da=a-mrgvala comi        tapas      b. Vanom    da=a-t'exa kvercxi   papas
        Vano.erg   rounded         dough.abs pan.dat    Vano.erg broke        egg.abs    porridge.dat
        Intended: 'Vano applied dough to the pan         'Vano applied (added) an egg to the by
        rounding it.'                                    porridge by breaking it.'

It ensues that the morpheme *a-* licenses a dative marked DP with a change of location construal, but fails to do so with a change of state (result state) construal. Georgian possesses another means for

licensing dative marked DPs: the affix *u-*, which is considerably less selective as to verbs it can attach to. The dative marked DP is interpreted as a concerned participant of the underlying event ('benefactive' dative), (4):

(4) a.V.  da=u-C'era  leksi  ninos    b. V. da=u-mrgvala comi  dedas
     V.  wrote   poem.abs  Nino.dat    V. rounded    dough.abs  mother.dat
     'Vano wrote poems for Nino.'        'Vano rounded dough for his mother.'

**Data II French**. A reminiscent contrast is attested in French: With change of location verbs variable binding between the dative marked DP and the theme is symmetrical (5), while with change of state verb, variable binding is asymmetric (6), the dative being hierarchically higher than the theme.

(5) a.Elle a rendu à chaque élève son cartable.    b. Elle a rendu à son propriétaire chaque cartable
     She gave-back to every pupil his schoolbag      She gave-back to its owner every schoolbag

(6) a.Elle a peint à chaque habitant sa maison.    b. *Elle a peint à son locataire chaque maison.
     She  painted  to every inhabitant his house      She painted to its tenant every house.

Other distinguishing syntactic properties between the two types of French dative concern the possibility to appear in nominalizations, word-order differences, restrictions on determiners of the direct object DP (Boneh & Nash *to appear*). Both French and Georgian present a similar divide between the event type of the underlying verb and interpretation of the dative marked DP. They differ as to the formal means expressing this divide: morphological in Georgian (there are no differences in c-command asymmetries between Georgian a-/u- dative constructions), syntactic in French.

**Outline of the analysis.** Ditransitives are bi-eventive constructions consisting of a cause event and a small clause (Marantz 2011) realizing a path-scale construal. A dative DP/PP in these constructions denotes an initial or final point on a simplex/complex path-scale: the resutling change that the theme argument undergoes is coming into/off contact with this point. Other bi-eventive verbs that express change of state are also decomposed into a causing subevent and a lower subevent involving a property-scale construal where the theme gets located at some point of the scale denoted by the predicate as a result of the event. The impossibility to interpret the dative DP as a recipient with property-scale related predicates follows if we assume that each predicate is associated with a single type of scale. "Non-core" datives are not related to a particular type of scalar dimension lexicalized by the verb; these will be shown to be secondary subjects, taking the lower subevent as their predicate by a process of lambda-abstraction.

**Theoretical consequences.** Ditransitives have been repeatedly analyzed as analogous to possessive configurations and involving the presence of HAVE predicate (Harley 2002, Kayne 2010). While many ditransitive constructions contain an intended recipient, verbs of resemblance, comparison, connection, with an obligatory dative argument have always posed a problem to a unifying view of dative 'havers' (cf. McIntyre 2006).

(7)    a. Isa a comparé Paul *(à une limace) *Fr.*    b. Vanom se=a-dara pavle *(Ch'ias)  *Georgian*
        'Isa compared Paul to a slug'            'Vano compared Paul to a worm'

These examples beg for a more global treatment of ditransitive constructions, such as ours, according to which the theme undergoes a change by coming into contact with another entity interpreted as a point of the scale. If this is indeed so, the possessive flavor of ditransitives does not arise from the presence of a specific predicate but from specific syntactic configurations, namely those involving scale-related construals, where the point on the scale reached by the theme is expressed by a dative argument. An additional major consequence of our approach is that goals are not ranked higher than themes on the thematic hierarchy, as generally accepted, pace Baker (1996). This implies that universally, there is a single basic configuration to constructions containing 'core-datives' in which the theme is mapped higher than the goal, but languages vary according to the structural means at their disposal to re-organise this order. Lastly, our approach leads to consider dative case as a structural case dependent on the case-licensing of the theme rather than related to a particular semantic role (cf. Baker & Vinokurova 2010).

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