Lexical splits in ditransitive constructions: a semantic map approach

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1. Ditransitive constructions: basic alignment types

Basic types of ditransitive constructions/alignments (Haspelmath 2004; 2005; cf. Blansitt 1973; Comrie 1982; Dryer 1986; Croft 1990; Siewierska 2003, 2004), in terms of encoding of T (Theme) and R (Recipient) with respect to monotransitive P (Patient)

1) indirect object/indirective alignment (T = P ≠ R); cf. German

(1) German
   Ich gab ihm ein Buch
   ‘I (nom) gave him (dat) a book’

2) primary object construction/secundative alignment (T ≠ P = R);

(2) Eskimo (West Greenlandic; Fortescue 1984: 88)
   (Uuma) Niisi aningaasa-nik tuni-vaa
   (that.ERG) Niisi money-INSTR.PL give-IND.3s->3s
   ‘(He) gave Nisi money’

3) double object construction
neutral (T = P = R); cf. the English Double Object Construction in translation of (1)-(2)

Fig. 1. Ditransitive alignment maps:

Indirective             Secundative             Neutral

\[ \begin{array}{ccc}
\text{P} & \text{T} & \text{R} \\
\text{Indirective} & \text{Secundative} & \text{Neutral} \\
\end{array} \]
2. Variation in ditransitive constructions: Alignment alternations
In some languages the choice of alignment is determined by the relative ranking of R and T on the prominence hierarchies.

1) Dative alternation in English: Double Object Construction is favored in cases where R outranks T on the prominence hierarchies and is disfavored otherwise (cf. Bresnan & Nikitana’s (2003) ‘OO-primacy constraint’).

Cf. also the ‘person-case constraint’, discussed in (Haspelmath 2004); cf. impossibility of dative shifting NP over a pronominal Theme: *She gave Kim it; She gave it to Kim.

2) alignment switch in Jamul Tiipay (Miller 2001): the pattern is secundative (w.r.t. agreement) if R outranks T on the animacy hierarchy (see (3)), but changes to indirective if T outranks R (see (4)):

Jamul Tiipay (Miller 2001: 162)
(3) Puu-ch xiikay nye-iny-x-a
that.one-SUBJ some 3/1-give-IRR-EMP
‘He will give me some’

(4) Nyaach map Goodwill ny-iny-x
I-SUBJ you.ABS Goodwill 1/2-give-IRR
‘I am going to give you to Goodwill’

3) In other cases the choice of alignment patterns is lexically determined (→ lexical splits). This is the most common source of multiple patterns; even canonical ditransitives may reveal different morphosyntactic behavior (Borg & Comrie 1984).

3. Dedicated ditransitive construction: open and closed verb classes
A ditransitive construction, which are defined on the canonical verbs (give, sell, show, teach), may extend to other verbs types, but may be also lexically restricted.

- Some languages like English an open class of ditransitive verbs comprising a large number of verb classes (Levin 1993),
- other languages have just few ditransitive verbs (Fongbe has just three: ‘give’, ‘show’, ‘teach’).
- still other languages have no basic (non-derived) ditransitives at all (e.g. Tzotzil)

Kittilä (2006) concludes that ‘give’ is a by far the most typical ditransitive verb. By this he means that ‘give’ (almost) invariably belongs to a set of verbs which occur in a dedicated ditransitive construction, in particular, the double object construction (i.e. neutral alignment).

Kittilä (2006) attributes this predilection to ‘high semantic transitivity’ of ‘give’, yet structural factors seem to be relevant as well.
In some languages (like Thai), ‘give’ is the only verb used in the double object construction, since other verbs use a serial verb construction based on ‘give’:

(5) Thai (Wilawan 2000: 1; Natchanan Yaowapat, p.c.)
   a.  khāw ḡāy khānōm dēkēk.
      he       give dessert   children
     ‘He gave the children some dessert.’

   b.  pǎōt prāʔtūu ḡāy khāw.
      open door give 3SG
     ‘(S/he) opened him a door.’

Structural factors can also explain some exceptions to Kittilä’s (2006) generalization concerning the predilection of ‘give’ for the double object construction (see §6 below).

4. Lexical splits: partial hierarchies

Hierarchy of transfer verbs in Germanic (Croft et. al 2001)

Figure 2. Encoding of ‘transfer verbs’ in Germanic (Croft et. al 2001)
‘give’> ‘send’ > ‘throw’
English DOC ----------------------------
German (Dative) -------------- (zuwerfen)
Icelandic (till) ------------------

NB Other Germanic languages overtly code distinctions between transfer of possession and caused motion verbs, while English needs additional tests to discriminate between these classes (Levin and Rappaport 2005); cf. Where did he throw/send (a letter)? *Where did he give (a book)?

Further hierarchies can be proposed to include other verb types

Figure 3. Ditransitive-benefactive cline.
‘give’ > ‘sell’ > ‘build (smth for smb)’
Yaqui (DOC), Chechen (allative) ----- 
Thai (kee), Bangla (dative) ------------------
Russian, German (dative) ------------------

Figure 4. Ditransitive-instrumental cline
‘give’ > ‘feed’ > ‘hit’
Even (instrumental) ----- 
Jalonke (instrumental) ------------------
Eskimo (instrumental) ------------------

These hierarchies can be further combined insofar as they refer to the same verb types.
Figure 5. Combining sub-scales.

Eskimo (instrumental) > Even (dative)

‘hit’ > ‘feed’ > ‘give’ > ‘send’ > ‘build for’

Thus partial hierarchies can be integrated into a general semantic map.

5. Towards a semantic map for ditransitive constructions


The basic assumption of the semantic map approach: recurrent similarity in form reflects functional similarity (cf. Haiman’s work on iconicity). Those functions which are similarly encoded are put adjacently in the semantic space; hence contiguity requirement on semantic maps.

Figure 6. A semantic map of ditransitive constructions

The lines indicate an approximate range of verbs participating in the English Double Object Construction and to-NP Construction; their intersection delimits verb types participating in a dative alternation; DOC --------- , to-NP --------- )
Figure 7. Basic ditransitive constructions in Jamul Tiipay, Finnish and Eskimo

| Jamul Tiipay: neutral (DOC) | Finnish: allative extensions | Eskimo: instrumental extensions |

Basic alignment patterns
a) allative indirective alignment (cf. allative extension in Finnish)
b) benefactive indirective alignment (cf. extension of GEN encoding in Manipuri)
c) instrumental secundative alignment (e.g. Eskimo)
d) unmarked secundative (e.g. Jamul Tiipay)

Predictions of the semantic map approach: if a strategy spreads it will spread through continuous segments on the map:
e.g.: if ALL-like marking is found on GIVE it will be found on SEND (cf. Finnish), if INSTR marking is found on SEND (cf. Eskimo) it will also be found with GIVE, etc

6. Some problematic patterns
6.1. Interference of structural factors
Contrary to the general pattern (see §3), in Malayalam, ‘give’ takes a dative construction, while “less canonical ditransitives” (Asher & Kumari 1997: 205) like ‘entrust’ and ‘feed’ take a DOC:
   a. *kuTTi enikk peena tannu.*
      child I.DAT pen give.PAST
      ‘The child gave me the pen.’
   b. *naan puuccakk鎟 paal kOttuu*
      I cow.PL.ACC grass eat.CAUS.PAST
      ‘I fed the cows grass.’

Explanation: these ditransitives are (lexicalized) causatives and causatives have a predilection for a double object construction (MHC).

6.2. Verb polysemy and pattern inheritance

The extensions of the directional strategy in Daghestanian to HIT-verbs is problematic as it does not involve intermediate classes (i.e., does not result in a spray/load alternation).

(7) Chechen (Bickel & Nichols 2008)

   daas ystaghna urs tyyxira
   father.ERG sheep.DAT knife.NOM strike.PST
   'Father stabbed the sheep'

Clearly the extension of the directional strategy is motivated by the polysemy: HIT inherits the argument structure from 'thrust/strike', thus an affect verb patterns as caused motion or contact verbs for which the directional strategy is expected (iconic).

NB if there is a spill-over of some strategy to another domain; then a semantic shift (e.g., ‘throw/thrust’ $\rightarrow$ ‘hit’) is often involved (cf. Malchukov 2005 on pattern inheritance in case marking).

References (selected)


Kittilä, Seppo. 2006. The anomaly of the verb ‘give’ explained by its high (formal and semantic) transitivity. *Linguistics* 44.3: 569–612.

