Non-prototypical Ditransitives

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Prototypical Ditransitives (or: three-participant constructions)

- Actual physical transfer of *inanimate* Theme (T) from human agent to *human* Recipient/Goal (G)
- Verb: *give*

			G		**T**
(1)	*Ik*	*geef*	*ze*	*de*	*kranten.*
	1SG	give	3PL	the	newspapers

‘I give them the newspapers.’

A major departure from the prototype

- **Two human** Non-Agent-Arguments (henceforth: **2HNAAs**)

(2) *Ze drukte de baby tegen zich aan*,
'She hugged the baby…

		T	**G**		
alsof iemand	***hem***	***van***	***haar***	*wilde*	*stelen*.
as.if someone	him	from	her	want.PST	steal.INF

'…as if someone wanted to steal him from her.'

Major research questions

- How frequent are 2HNAAs?
- Which verbs take 2HNAAs?
- How are 2HNAAs encoded?
- (How) do lexical semantics of verb and referential properties of argument(s) co-determine construction choice?

Relevant findings from earlier research (cross-linguistic)

- In general: Departure from prototypical role-reference mapping may trigger different coding, most often of G, rather than T (Haspelmath 2007)

  T = non-human, nominal, 3rd person

  G = human, pronominal, 1st/2nd person

Relevant findings from earlier research (cross-linguistic)

- Specific for 2HNAAs:

  Languages with ‘object-based’ marking of T and G (such as English and Dutch) may resort to formal disambiguation;

  For languages with ‘role-based’ marking (such as Polish and Greek) there is no such prediction, because no ambiguity arises.

  (Kittilä 2006)

Examples T/G-marking strategies

- Object-based (Marthuthunira, Pama-Nyungan, Australia)

(3) *ngayu murnta-lalha murla-a ngurnu pawulu-u*
1SG.NOM take.from-PST meat-**ACC** that.**ACC** child-**ACC**
'I took away the meat from that child.'

- Role-based (Finnish)

(4) *Fysioterapeutti anto-I kirja-n lapse-lle*
fysiotherapist.NOM give.3SG.PST book-**ACC** child-**ALL**
'The physiotherapist gave the book to the child.'

Relevant findings from earlier research (Dutch and English)

- Specific lexical verbs may have preferences for specific construction types (independent of referential properties of T/G)
- Specific verbs may have preferences for specific referential types of Ts and/or Gs (=***scenario***)
- Lexical verb and scenario both influence construction choice

(Bresnan et al. 2007, Levin & Rappaport Hovav 2008, Colleman 2009, Colleman & De Clerck 2009)

Data & Definition

- Corpus data:
  - English: British National Corpus (BNC): 100 mln words
  - Polish: IPAN: 250 mln words & PELCRA: 14 mln words
  - Dutch: Corpus Gesproken Nederlands (CGN): 10 mln words
  - Greek: The Hellenic National Corpus (HNC): 47 mln words
    + animacy-annotated corpus of 32,140 sentences from HNC.
  - Spanish: Corpus del Español: 20 mln words
- Three-participant constructions:

  Instances of verbs with T and G overtly expressed, independent of coding strategy

  (‘core’ / ‘oblique’)

3-participant constructions in English and Dutch: intro

- Two construction types

  [Dutch has order variation in both; not taken into account here]

  - Double Object Construction (**DOC**)
    - John gave Mary a book.
  - Prepositional Construction (**PrepC**)
    - John gave a book to Mary.

- Distribution
  - Some verbs: only DOC
  - Other verbs: both DOC and PrepC (alternating)
  - Yet other verbs; only PrepC

Frequency 2HNAAs in 3-participant uses of verbs English

VERB	N 3-participant uses	Freq 2HNAAs
show	1089	2% (18)
send	2054	3% (57)
present	637	3% (17)
assign	173	3% (5)
entrust	28	7% (2)
bring	2732	5% (136)
recommend	152	30% (45)
introduce	682	40% (275)
denounce	9	67% (6)
bear	51	71% (36)
endear	116	89% (103)

Frequency 2HNAAs in 3-participant uses of verbs Dutch

VERB	N 3-participant uses	FREQ 2HNAAs
geven (give)	200	0.5% (N=1)
brengen (bring)	200	1.5% (N=3)
sturen (send)	200	4% (N=8)
baren (bear)	11	9% (N=1)
presenteren (present)	25	12% (N=3)
toevertrouwen (entrust)	39	17% (N=6)
toewijzen (assign)	18	22% (N=4)
aanbevelen (recommend)	14	29% (N=4)
voorstellen ('introduce'; not 'propose')	17	100% (N=17)

2HNAAs encoding: DOC-only verbs in English/Dutch

- Only English DOC verb with majority occurrences with 2HNAAs: *bear*

  (5) Patsy **bore** him eight ill-nourished, ailing children.

- cf. Dutch *baren*: also DOC-only but less frequently with 2HNAAs

  (6) *Dat feit **baarde** hem zorgen.*

  (‘That fact bore him worries.’)

2HNAAs encoding: DOC-only verbs in English/Dutch

- A few others occur with 2HNAAS, but frequencies all under 3%

(7) Judi had **envied** Anne her college boyfriend.

(8) Hugh de Tracy **refused** me his daughter

(9) Ik **wens** je veel personeel.

('I wish you lots of personnel.')

2HNAAs encoding: Alternating verbs

- Object-based marking gives rise to ambiguity between T and G if both are human

  (cf. Kittilä 2006)
- Expectation English and Dutch: 2HNAAs more common in PrepC than in DOC

  (special G-marking)

2HNAAs encoding: Alternating verbs in English

VERB	Construction	Construction Frequency	2HNAAs Frequency
show	DOC	69% (N=748)	1.3% (N=10)
	PrepC	31% (N=341)	**2.3%** (N=8)
send	DOC	39% (N=792)	1.6% (N=13)
	PrepC	61% (N=1262)	**3.5%** (N=44)
bring	DOC	41% (N=1120)	2.4% (N=27)
	PrepC	59% (N=1611)	**6.7%** (N=44)

2HNAAs encoding: Alternating verbs in Dutch

VERB	Construction	Construction Frequency	2HNAAs Frequency
sturen (send)	DOC	28% (N=55)	0% (N=0)
	PrepC	72% (N=145)	**6%** (N=8)
brengen (bring)	DOC	5% (N=9)	0% (N=0)
	PrepC	95% (N=187)	**1,5%** (N=3)
aanbevelen (recommend)	DOC	64% (N=9)	22% (N=2)
	PrepC	59% (N=5)	**49%** (N=4)

2HNAAs encoding: PrepC-only verbs English

- Verbs which are ‘typically’ associated with 2HNAAs are all PrepC-only:

(10) Modigliani asked Lipchitz to **introduce** him **to** the small group of Jewish artists

(11) But don't **present** this girl **to** me.

(12) We sincerely hope you **recommend** us **to** your friends.

(13) I have **entrusted** Hasan **to** a gentleman.

2HNAAs encoding: PrepC-only verbs English

- Other verbs with high frequency of 2HNAAs are also PrepC-only:

(14) He was an ex-miner, and this **endeared** him all the more **to** Chapman

(15) Philip of Spain **denounced** Cranmer **to** the Pope.

(16) [She] **draws** many men **to** her.

cf. Dutch

- *voorstellen* (introduce) occurs mostly in PrepC:

(17) Mag ik u **voorstellen aan** mijn gesprekspartner
('May I introduce you to my interlocutor')

- but *aanbevelen* (recommend), *presenteren* (present) and *toevertrouwen* (entrust) are alternating

Frequency of 2HNAAs independent of verb

In English, if T and G are human and pronominal, PrepC is much more frequent:

- In DOC: only 2 instances

  (21) I'll show **you her** anyway. (alternating)

  (22) I couldn't forgive **you him**. (DOC only)

- In PrepC: 279 instances involving 63 verbs

Frequency of 2HNAAs independent of verb

In Dutch:

- Scenarios with 2HNAAs are more frequent with PrepC than with DOC: 88% vs. 12%
- Also: in scenarios with pronominal T and nominal G (Haspelmath ‘crossing’) PrepC is more frequent (63%) than DOC (37%)

  [While the ‘canonical’ pattern, with nominal T and pronominal G has: PrepC 9% vs. DOC 91%]

Scenario-construction frequency: DOC

(N = 706)				G					
				pro				N	
				1	2	3			
						+hum	-hum	+hum	-hum
T	pro	1		refl					
		2			refl				
		3	+hum	2 (0.3%)					
			-hum	56 (8%)	57 (8%)	38 (5%)		26 (4%)	
	N		+hum		1 (0.1%)	(0.1%)			
			-hum	71 (10%)	74(10%)	93(13%)	5(0.7%)	98(14%)	18 (3%)
	proposition			44 (6%)	49 (7%)	30 (4%)		43 (6%)	

Scenario-construction frequency: PrepC

(N = 212)				G					
				pro				N	
				1	2	3			
						+hum	-hum	+hum	-hum
T	pro	1		refl					
		2			refl			1 (0.5%)	
		3	+hum		1 (0.5%)			1 (0.5%)	
			-hum	6 (3%)	7 (3%)	13 (6%)		41 (19%)	1 (0.5%)
	N		+hum	2 (0.9%)				1 (0.5%)	
			-hum	10 (5%)	1 (0.9%)	7 (3%)	2 (0.9%)	63 (30%)	15 (7%)
	proposition			3 (1.4%)	1 (0.9%)	6 (3%)		28 (13%)	

Interim summary

- Frequency of 2HNAAs: in general low, but specific lexical verbs display higher percentages and some even prefer this scenario (including verbs that are not usually associated with it).
- As expected, in English and Dutch 2HNAAs tend to be encoded by PrepC rather than DOC.
- With alternating verbs, this seems to hold independently of the overall frequency with which a lexical verb occurs with DOC or PrepC and of its frequency with 2HNAAs.

3-participant constructions in Polish: intro

- With prototypical ditransitive verbs essentially T in Acc and G in Dat
- A wide range of uses of this construction
  - Excluded as ditransitive: ethical dative and sympathicus dative
- Some prepositional counterparts, but (in the main) with meaning distinctions

Frequency 2HNAAs in 3-participant uses of verbs Polish

VERB	N 3-particpant uses	FREQ 2HNAAs
dać (give)	416	1% (5)
podarować (give as a present, grant)	85	2% (2)
powierzyć (entrust)	93	3% (3)
przysyłać (send)	121	4% (5)
pokazać (show)	196	6% (11)
polecić (recommend)	151	9% (14)
przedstawić (introduce)	204	9% (19)
zaprowadzić (bring/lead)	79	11% (9)
zabrać (take away)	275	13% (37)
zaznajomić (familiarize; non-refl)	19	21% (4)
poznać (acquaint)	9	100% (7)

cf. Greek

VERB	N 3-particpant uses	FREQ 2HNAAs
parusiazo (present)	200	0.5% (1)
dhino (give)	200	2 % (4)
stelno (send)	200	2% (4)
gnorizo (acquaint)	200	2% (4)
ferno (bring)	200	3% (6)
empistevome (entrust)	200	3% (6)
katangelo (denounce)	67	4% (3)
parapempo (refer)	114	5% (6)
paradido (hand over)	133	9% (12)
sistino (introduce)	200	43% (86)

cf. Spanish

VERB	N 3-particpant uses	FREQ 2HNAAs
introducir (introduce)	41	0
confiar (entrust)	15	1
encomendar (assign)	52	7
presentar (present)	6	2

2HNAAs encoding: Acc/Dat-constructions in Polish

- Much wider range of verbs than in English/Dutch with DOC:
  - E.g. with 2 Human Pronouns: 186 instances with 132 verbs
  - All combinations of persons including those violating the so-called ditransitive person constraint

Non-canonical person combinations

- T = 2; G = 1 (Haspelmath: ‘clustering’)

(23) Nikt mi cię nie odbierze.
no one me:**DAT** you:**ACC** not take way:3SG:FUT
‘No one will take you away from me.’

- T = 1/2; G = 3 (Haspelmath: ‘crossing’)

(24) Mnie mu polecił.
me:**ACC** him:**DAT** recommend
‘He recommended me to him.’

2HNAAs encoding: Alternating verbs in Polish

VERB	Con-struction	Construction Frequency		HNAAs Frequency	
przysyłać (send)	Dat/Acc	54%	(N=65)	1.5%	(N=1)
	PrepC	46%	(N=56)	**7.1%**	(N=4)
odesłać (send back)	Dat/Acc	5%	(N=7)	0%	(N=0)
	PrepC	95%	(N=129)	**7.8%**	(N=10)
zabrać (take away)	Dat/Acc	33%	(N=91)	**18%**	(N=18)
	PrepC	67%	(N=184)	10%	(N=19)
zesłać (send upon/into exile)	Dat/Acc	29%	(N=10)	**50%**	(N=5)
	PrepC	71%	(N=24)	0%	(N=0)

cf. Greek

VERB	Con-struction	Construction Frequency	HNAAs Frequency
dhino (give)	Gen/Acc	34% (N=68)	0% (N=0)
	PrepC	66% (N=132)	6% (N=4)
stelno (send)	Gen/Acc	30% (N=60)	2% (N=1)
	PrepC	70% (N=140)	2% (N=3)
ferno (bring)	Gen/Acc	22% (N=44)	**9%** (N=4)
	PrepC	78% (N=156)	1% (N=2)

2HNAAs encoding: Alternating verbs in Polish

Both examples 2HNAAs, but different coding:

PrepC:

(25) ja każę ją **odesłać** do ciebie.
I order:1SG:FUT her:**ACC** send.back:INF **to** **you**
'I will order that she be sent to you.'

Dat/Acc:

(26) Gdyby chciano mu ją **odesłać**
if wanted him:**DAT** her**:ACC** send.back:INF
'If (they) had wanted to send her back to him.'

2HNAAs encoding: Alternating verbs in Polsih

2HNAAs, with Acc/Dat marking:

(27) ostatnio **zesłał** mu pewnego franciszkanina
recently sent:3SG he:**DAT** certain Franciscan.monk
`recently (God) sent him a Franciscan monk.'

'Prototypical' scenario, but PrepC:

(28) po tylu nieszczęsciach, ktore na panią **zesłał**
after so many unhappiness, which **on you** sent:3SG
`after all the disasters which (God) has sent upon you.'

No clear skewing for PrepC with 2HNAAs in Polish

- Alternating verbs: from IPI PAN N=555; no consistently higher frequency of 2HNAAs with PrepC
- When T&G are both pronominal and human, Acc/Dat marking is more frequent than PrepC: Dat/Acc=67% vs. PrepC=42%
- Only when T is SAP (1st or 2nd person) PrepC is more frequent:

  Dat/Acc=22% vs. PrepC=77%

2HNAAs encoding: PrepC-only verbs in Polish

- Nonetheless: considerably higher frequencies of 2HNAAs occur with verbs that occur only in prepositional constructions, e.g.
  - *poznać z* ‘acquaint with’ (introduce)
  - *zaznajomić z* `acquaint with’ (introduce)
  - *zaprowadzić do* `to bring/lead over’

Example polish

(29) Jirous **zaznajomi** całą grupę z poetą
J:NOM familiarized whole group:**ACC** **with** poet:INS
'Jirous introduced the whole group to the poet.'

(30) Ania **zaprowadziła** mnie do Ingii
Ania bring.over:3SG:PST me:**ACC** **to** Inga.
'Ania brought me over to Inga'

Categorial features Pro/NP: Polish

VERB	T Pro	G Pro
dać (give)	1%	53%
pokazać (show)	7%	75%
zaprowadzić (bring/lead)	81%	1%
zaznajomić (familiarize; non-refl)	21%	0%
poznać (acquaint)	71%	14%

Frequency of pronominal T & G: English

VERB	T PRO	G PRO	
bring	0.3%	95%	DOC
send	2%	84%	DOC
show	5%	78%	DOC
denounce	33%	0%	
introduce	48%	6%	
recommend	50%	10%	
endear	89%	12%	

Summary of main points

- 3-participant events with 2HNAAs (and with overt T and G) are generally rare, but actual frequency differs widely between individual lexical verbs;
- Verbs that seem to be translational equivalents may show cross-linguistic differences in terms of their preferences for construction types and scenario types;
- In English and Dutch, scenarios with 2HNAAs are most frequently encoded by PrepC, independent of overall lexical preferences for construction or scenario;
- This pattern is motivated by disambiguation.
- This functional motivation does not fully explain the distribution of PrepC with 2HNAAs in Polish

Remaining issues

- Factor(s) explaining Prep in Polish?

  Higher degree of Affectedness of Human Theme?

  Reflected in its frequent pronominal status and especially as compared to the prepositionally marked G (maybe also influence of person (1/2 vs.3)).
- Other non-prototypical scenarios and their frequency/ with different verbs / with different constructions?
- Differentiate influence of lexical verbs vs. argument properties on alignment patterns within and across languages?
- Corpus data of languages with more directly reference-sensitive (animacy-based) alignment: work in progress.

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