

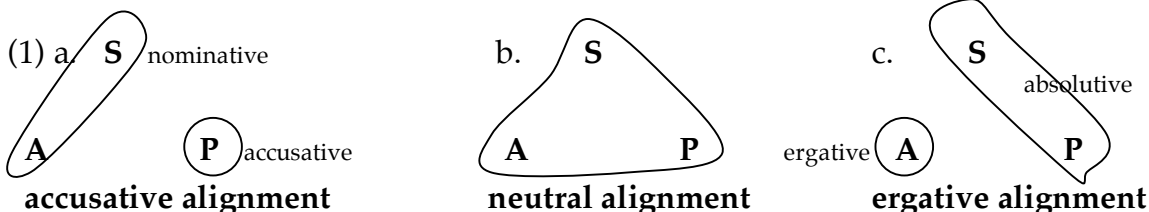
Explaining Syntactic Universals

(MARTIN HASPELMATH, LSA Institute, MIT, LSA.206, 26 July 2005)

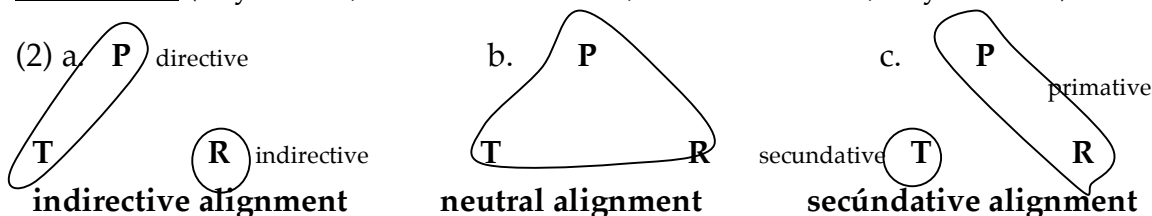
3. Universals of ditransitive constructions

1. The major alignment types, monotransitive and ditransitive

monotransitive:



ditransitive (Dryer 1986, Croft 1990:100-108, Siewierska 2004, Dryer 2005+):



(directive = direct obj., indirective = indirect obj., primitave = primary obj., secundative = secondary obj.)

Like ergativity and accusativity, indirectivity and secundativity can be seen both in **flagging** (= case-marking and adpositions) and in **indexing** (or cross-referencing):

(3) **German**: indirective flagging & neutral indexing

- (m) *Der Junge füttert den Teddy_{ACC}.*
'The boy is feeding the teddy bear.'
- (d) *Der Junge gibt dem Teddy_{DAT} etwas_{ACC} zu trinken.*
'The boy is giving the teddy bear something to drink.'

(4) **Choctaw** (Muskogean): neutral flagging & indirective indexing

- (m) *ofi-yat katos kopoli-tok* (Davies 1986:16, 40)
dog-NOM cat bite-PAST.3SG.NOM
'The dog bit the cat.'
- (d) *alla iskali im-a:-li-tok*
child money 3IND-give-1NOM-PAST
'I gave money to the child.'

(5) **Yoruba**: secundative flagging & neutral indexing

- (m) *ó pa mí* (Rowlands 1969)
he kill me
'He killed me.'
- (d) *ó fún mi l' ówó*
he give me SEC money
'He gave me money.'

(6) **Maranungku** (Western Daly): neutral flagging & secundative indexing(m) *mi awa kara tim ayi* (Tryon 1970:48, 70)
dog meat 3SG.A.NFUT bury PAST

'The dog buried the meat.'

(d) *kantu yuwa tyinta kanga=na wut ayi*
man that spear 3SG.A.NFUT=3SG.R give PAST
'He gave the spear to that man.'(7) **Hyow** (Tibeto-Burman): indirective flagging & secundative indexing(m) *yɔntuʔa uy=la key ʔ-ŋoʔwey-sɔ*
yesterday dog=ERG I 1SG.P-bite-CONCL

'Yesterday a dog bit me.'

(d) *cu=la key=a cɔ ʔe-pek*
he=ERG I=LOC book 1SG.R-give
'He gave me a book.'

(Peterson 2003: 174, 179)

2. Monotransitive/ditransitive correlations?

data from a study of 100 languages, monotransitive and ditransitive flagging and indexing (Haspelmath 2005+)

Table 1A. Flagging

mono-tr.	di-trans.	# of lgs.	example language
ACC	IND	18	Class. Arabic
ACC	SEC	0	--
ACC	NEUT	10	Martuthunira
ERG	IND	12	Lezgian
ERG	SEC	2	W Greenlandic
ERG	NEUT	6	Wambaya
NEUT	IND	27	French
NEUT	SEC	3	Yoruba
NEUT	NEUT	28	Vietnamese

Table 1B. Indexing

mono-tr.	di-trans.	# of lgs.	example language
ACC	IND	8	Choctaw
ACC	SEC	15	Khumi
ACC	NEUT	28	German
ERG	IND	4	Abkhaz
ERG	SEC	0	--
ERG	NEUT	3	Semelai
NEUT	IND	0	--
NEUT	SEC	0	--
NEUT	NEUT	29	Cantonese

- neutral monotransitive indexing implies neutral ditransitive indexing
 - because neutral monotransitive indexing means no indexing; indexing of A is more likely than indexing of P, and indexing of P is more likely than indexing of other roles (because of the correlation of indexing with topicworthiness; Moravcsik 1974, Givón 1976)

- otherwise no clear correlations

3. Overt coding vs. zero-coding of arguments: Coding types

monotransitive (S-A-P):

00m =	S	zero-coded (0)	<i>Guest-Ø arrived.</i>
	A	zero-coded (0)	<i>Girl-Ø saw boy-M.</i>
	P	overtly coded (m)	
mm0 =	S	overtly coded (m)	<i>Guest-M arrived.</i>
	A	overtly coded (m)	<i>Girl-M saw boy-Ø.</i>
	P	zero-coded (0)	("marked nominative")
mmm =	S	overtly coded (m)	<i>Guest-M arrived</i>
	A	overtly coded (m)	<i>Girl-M₁ saw boy-M₂.</i>
	P	overtly coded (m)	

ditransitive (P-T-R):

00m =	P	zero-coded (0)	<i>X saw boy-Ø.</i>
	T	zero-coded (0)	<i>X gave book-Ø girl-M.</i>
	R	overtly coded (m)	
mmm =	P	overtly coded (m)	<i>X saw boy-M.</i>
	T	overtly coded (m)	<i>X gave book-M girl-M.</i>
	R	overtly coded (m)	

Monotransitive

Ditransitive

Table 2. Flagging

align ment	coding type	# of lgs	example language	align ment	coding type	# of lgs	example language
ACC (29)	00m	21	Hungarian	IND (58)	00m	39	French
	mm0	3	Maricopa		mm0	0	--
	mmm	5	Japanese		mmm	19	Hungarian
ERG (19)	0m0	15	Lezgian	SEC (6)	0m0	4	Yoruba
	m0m	0	--		m0m	1	Sahaptin
	mmm	4	Wardaman		mmm	1	Tagalog
NEUT (49)	000	49	English	NEUT (45)	000	34	Maranungku
	mmm	0	--		mmm	11	Martuthunira
TRIP (3)	0mm	3	Sahaptin	TRIP (1)	m0m	1	Awa Pit

Universal 8:

In the flagging of non-neutral monotransitive and ditransitive alignment constructions, the overwhelming preference is for the specially treated role-type to be overtly coded, and for the two equally treated role-types to be zero-coded. The opposite case (specially treated role-type zero-coded, equally coded role-type overtly coded) is very rare.

(largely subsumes Universal 5)

monotransitive flagging/accusative alignment:	21:3 (00m:mm0)
monotransitive flagging/ergative alignment:	15:0 (0m0:m0m)
ditransitive flagging/indirective alignment:	39:0 (00m:mm0)
ditransitive flagging/secundative alignment:	4:1 (0m0:m0m)

Marked nominative in Maricopa (Yuman; Arizona; Gordon 1986:37-41)

- (8) (i) *sny'ak-sh ashvar-k*
 woman-NOM sing-REAL
 'The woman sang.'
- (t) *'iipaa-ny-sh qwaaq kyaa-m*
 man-DEM-NOM deer shoot-REAL
 'The man shot a deer.'

Marked primitive in Sahaptin (Penutian; Oregon; Rude 1997:324, 334)

- (9) (m) *i-q'ínun-a iwíns inít-na*
 3NOM-see-PAST man house-PRIM
 'The man saw the house.'
- (d) *pa-ní-ya k'úsi miyúux-na*
 3PL.NOM-give-PAST horse chief-PRIM
 'They gave the horse to the chief.'

Marked absolutive had been thought not to exist until recently, cf. Dixon (1994:67); but see now Donohue & Brown 1999, Brown 2005, for Nias (Austronesian), and Wichmann 2005 for Tlapanec.

Marked directive (=unmarked dative) is still unattested.

Explanation:

- The efficient coding types are the common ones, the inefficient coding types are rare (cf. Comrie 1978 for ergative alignment).

4. Ditransitive alignment splits

cf. monotransitive alignment splits (e.g. Comrie 1981, Dixon 1994):

Differential Object (= P) Marking:

Special P-marking is the more likely, the higher the P is on the animacy and definiteness scales.

Differential Subject (=A) Marking:

Special A-marking is the more likely, the lower the A is on the animacy and definiteness scales.

Explanation:

The most frequent and expected monotransitive association: animate/definite A and inanimate/indefinite P.

Deviations from the expectation need special marking.

4.1. Differential Recipient Marking

Universal 9:

Special ("dative") R-marking is the more likely, the lower the R is on the animacy and definiteness scales.

Explanation: The most frequent and expected ditransitive association: animate/definite R and inanimate/indefinite T. Deviations from the expectation need special marking.

Table 3.

1st/2nd	3rd	proper	human	non-human	
•	•	•	•	•	Latin, Lezgian, etc.
	•	•	•	•	French, Yimas, Georgian, etc.
		•	•	•	Pero
			•	•	Drehu
				•	English

4.1.1. No special marking for 1st/2nd person pronouns

(10) French bound pronouns

	ACCUSATIVE	DATIVE
SG 1	<i>me</i>	<i>me</i>
2	<i>te</i>	<i>te</i>
3M	<i>le</i>	<i>lui</i>
3F	<i>la</i>	<i>lui</i>
PL 1	<i>nous</i>	<i>nous</i>
2	<i>vous</i>	<i>vous</i>
3	<i>les</i>	<i>leur</i>

(11) Tangale (bound) object pronouns (Jungraithmayr 1991:36)

	DIRECT-OBJECT PRONOUN	INDIRECT-OBJECT PRONOUN
SG 1	<i>-no/-no , -n-</i>	<i>-no/-no , -n-</i>
2	<i>-ko/-ko , -k-</i>	<i>-ko/-ko , -k-</i>
3M	<i>mbé e ndâm</i>	<i>-ni/-ni</i>
3F	<i>mbáastâm</i>	<i>-to/-to</i>
PL 1	<i>-mu/-mu , -m-</i>	<i>-mu/-mu , -m-</i>
2	<i>-ku/-ku , -k-</i>	<i>-ku/-ku , -k-</i>
3	<i>mbíindâm</i>	<i>-wu/-wu</i>

(12) Yimas bound object pronouns (Foley 1991:200-211)

	"O-pronouns"	"D-pronouns"
SG 1	<i>a-</i>	<i>a-</i>
2	<i>nan-</i>	<i>nan-</i>
3	<i>na-</i>	<i>-(n)akn</i>
DL 1	<i>kra-</i>	<i>kra-</i>
2	<i>kul-</i>	<i>kul-</i>
3	<i>impa-</i>	<i>-mpn</i>
PL 1	<i>kra-</i>	<i>kra-</i>
2	<i>kul-</i>	<i>kul-</i>
3	<i>pu-</i>	<i>-mpun</i>

similarly: Georgian (Kartvelian), Abkhaz (Abkhaz-Adyghean), Amele (Trans-New Guinea; Roberts 1987)

4.1.2. *No special marking for pronouns*

Pero (Chadic; Nigeria; Frajzyngier 1989:109, 166-7):

object suffixes that do not distinguish between Patient/Theme and Recipient:

- (13) a. *À-múntée-nò-té-m.*
 NEG-give-1SG.OBJ-3SG.F.OBJ-NEG
 'He didn't give her to me.'
- b. *À-múntée-té-nò-m.*
 NEG-give-3SG.F.OBJ-1SG.OBJ-NEG
 'He didn't give me to her.'

Full NPs require the preposition *tí* when they occur as Recipients:

- (14) *Músà mún-kò júrà tí Dilla.*
 Musa give-COMPL peanuts to Dilla
 'Musa gave peanuts to Dilla.'

4.1.3. *No special marking for pronouns and proper nouns*

In Drehu (Oceanic; Loyalty islands), pronouns and proper nouns may show zero-marking if they are Recipient (Moyses-Faurie 1983:161-2):

- (15) a. *Eni a hamëë angeic la itus.*
 I PRES give him the book
 'I give him the book.'
- b. *Eni a hamëë Wasinemu la itus.*
 I PRES give Wasinemu the book
 'I give Wasinemu the book.'

Other NPs must appear with the preposition *kowe* 'to':

- (16) *Eni a hamëën la itus kowe la nekönatr.*
 I PRES give the book to the child
 'I give the book to the child.'

4.1.4. No special marking for all human NPs

In English, non-human NPs must appear with the preposition *to*:

- (17) a. *I sent the letter to Masha./I sent Masha the letter.*
 b. *I sent the letter to Warsaw./*I sent Warsaw the letter.*

(see also Kittilä 2005)

4.2. Differential Theme Marking

Universal 10:

Special ("secundative") T-marking is the more likely, the higher the T is on the animacy and definiteness scales.

Explanation:

The most frequent and expected ditransitive association: animate/definite R and inanimate/indefinite T.

Deviations from the expectation need special marking.

Example:

In Akan (Niger-Congo, Kwa; Ghana etc.), the Theme argument in a double-object construction must be indefinite, as in (14a). (14b) with the definite article on the Theme is ungrammatical, and a construction with a special T-marking serial verb must be used instead (*dè* lit. 'take') (data from Sààh & Èzè 1997:143-44).

- (18) a. *Ámá màà mè siká.*
 Ama give 1SG money
 'Ama gave me money.'
- b. **Ámá màà mè siká nó.*
 Ama give 1SG money the
 'Ama gave me the money.'
- c. *Ámá dè siká nó màà mè.*
 Ama take money the give 1SG
 'Ama gave me the money.' (Lit. 'Ama took the money gave me.')

5. Inverse ditransitive patterns

5.1. Some well-known but peculiar facts

(19) English

- | | |
|--|-------------------------------------|
| a. <i>She gave me the book.</i> | b. <i>She gave the book to me.</i> |
| c. <i>She gave Kim the book.</i> | d. <i>She gave the book to Kim.</i> |
| e. <i>%She gave me it./%She gave it me.</i> | f. <i>She gave it to me.</i> |
| g. <i>*She gave Kim it./ *She gave it Kim.</i> | h. <i>She gave it to Kim.</i> |

(20) French (glosses as in 19a-h)

- | | |
|-------------------------------------|--------------------------------------|
| a. <i>Elle me donna le livre.</i> | b. <i>Elle donna le livre à moi.</i> |
| c. <i>*Elle donna Kim le livre.</i> | d. <i>Elle donna le livre à Kim.</i> |
| e. <i>Elle me le donna.</i> | f. <i>Elle le donna à moi.</i> |
| g. <i>*Elle le donna Kim.</i> | h. <i>Elle le donna à Kim.</i> |

These facts are easy to **describe** using the straightforward notions "double-object construction" (DOC) for two zero-coded objects and "indirect-object construction" (IOC) (for a construction where the Recipient receives special coding):

- (21) a. American English allows both the DOC and the IOC, except when the Theme is a pronoun.
- b. British English allows both the DOC and the IOC, except when the Theme is a pronoun and the Recipient is a full NP.
- c. French allows both the DOC and the IOC, except when the Recipient is a full NP.

But how should they be explained? (No well-known explanation exists.)

Definition of "inverse pattern": A pattern in which argument-marking depends not only on the intrinsic properties of the argument NPs, but also on the relation between two cooccurring arguments.

5.2. Monotransitive inverse patterns (involving person-role associations)

A well-known case: Lummi (Salish) (Jelinek & Demers 1983, Bresnan et al. 2001)

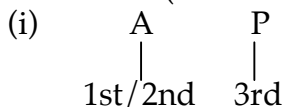
(22) Lummi (Jelinek & Demers 1983:168)

- | | | | |
|----------|--------------------------|----------------------|--------------|
| a. (1>3) | <i>xč̣i-t-sən</i> | <i>cə swəyʔqəʔ</i> | (canonical) |
| | know-TR-1SG.SUBJ | the man | |
| | 'I know the man.' | | |
| b. (3>1) | <i>*xč̣i-t-oŋəs-s</i> | <i>cə swəyʔqəʔ</i> | (crossing) |
| | know-TR-1SG.OBJ-3SG.SUBJ | the man | |
| | 'The man knows me.' | | |
| c. | <i>xč̣i-t-ŋ-sən</i> | <i>ə cə swəyʔqəʔ</i> | (non-simple) |
| | know-TR-PASS-1SG.SUBJ | by the man | |
| | 'I am known by the man.' | | |

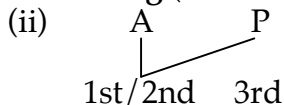
When the A argument is higher on the Person Scale than the P argument, the simple transitive construction cannot be used, but the language resorts to a **passive construction**.

Three types of association of Role Scale (A > P) and Person Scale (1/2 > 3):

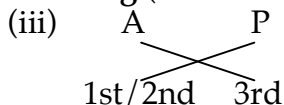
Canonical ("maximally harmonic") association of role and person:



Clustering ("less harmonic") association of role and person:



Crossing ("disharmonic") association of role and person:



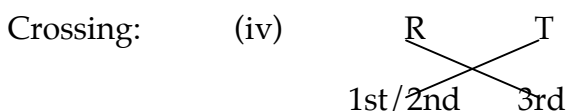
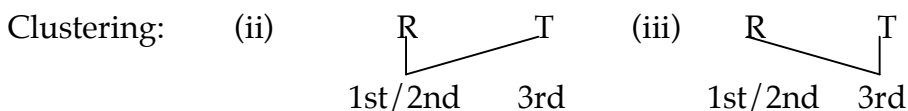
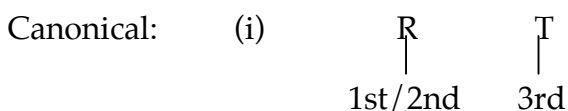
"Harmonic" and "disharmonic" translates as "frequent" and "rare". Since frequent patterns tend to be expressed with little coding and rare patterns require more complex coding, we expect:

Universal 11:

In languages with inverse patterns, the canonical association is always expressed by the simple ("direct") construction, the crossing association is never expressed by the simple construction, and the clustering association is intermediate.

5.3. Ditransitive person-role inverses (see Haspelmath 2004)

Role Scale: A > P/R > T



In French, Modern Greek, and Shambala, the **independent pronouns** are used instead of bound pronouns in the crossing association:

(23) French (e.g. Grevisse 1986:§657 (b) 1°)

- a. (1>3) *Agnès me la présentera.*
 Agnès 1SG.REC 3SG.F.THM present.FUT.3SG
 'Agnès will introduce her to me.'

- b. (3>1) **Agnès me lui présentera.*
 Agnès 1SG.THM 3SG.F.REC present.FUT.3SG
 'Agnès will introduce me to her.'
- c. *Agnès me présentera à elle.*
 Agnès 1SG.THM present.FUT.3SG to her
 'Agnès will introduce me to her.'

(24) Modern Greek (Anagnostopoulou 2003)

- a. (2>3) *Tha su ton stílune.*
 FUT 2SG.REC 3SG.M.THM send.PF.3PL
 'They will send him to you.'
- b. (3>2) **Tha tu se stílune.*
 FUT 3SG.M.REC 2SG.THM send.PF.3PL
 'They will send you to him.'
- c. *Tha tu stílune eséna.*
 FUT 3SG.M.REC send.PF.3PL you.OBL
 'They will send you to him.'

(25) Shambala (Bantu-G, Tanzania; Duranti 1979:36)

- a. (1>3) *A-za-m-ni-et-ea.*
 3SG.SUBJ-PAST-3SG.THM-1SG.REC-bring-APPL
 'S/he has brought him/her to me.'
- b. (3>1) **A-za-ni-mw-et-ea.*
 3SG.SUBJ-PAST-1SG.THM-3SG.REC-bring-APPL
 'S/he has brought me to him/her.'
- c. *A-za-ni-eta kwa yeye.*
 3SG.SUBJ-PAST-1SG.THM-bring to him/her
 'S/he has brought me to him/her.'

French and Modern Greek also forbid bound pronouns in one of the clustering associations:

(26) French

- d. (2>1) **Agnès me te présentera.*
 Agnès 1SG.THM 2SG.REC present.FUT.3SG
 'Agnès will introduce me to you.'

(27) Modern Greek

- d. (1>2) **Tha mu se stílune.*
 FUT 3SG.M.REC 2SG.THM send.PF.3PL
 'They will send you to me.'

But Catalan allows these associations:

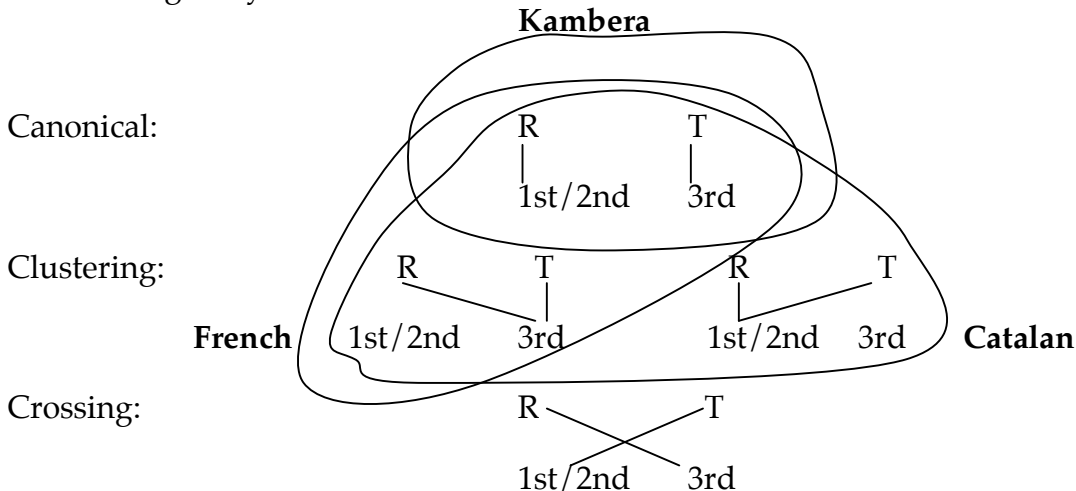
(28) Catalan (Bonet 1994:41)

Te m' ha venut el mercador més important.
 you me has sold the merchant more important
 'The most important merchant has sold you to me.' (or: '... me to you')

And Kambera (Central Malayo-Polynesian, eastern Indonesia) allows only the canonical association:

(29) Kambera (Klamer 1997: 903-4)

- a. *Na-wua-ngga-nya.*
3SG.AG-give-1SG.REC-3SG.THM
'He gives it to me.'
- b. *Na-wua-nggau-nja.*
3SG.AG-give-2SG.REC-3PL.THM
'He gives them to you (e.g. apples).'
- c. **Na-wua-nja-nya.*
3SG.AG-give-3PL.REC-3SG.THM
'He gives it to them.'
- d. **Na-wua-ngga-nggau.*
3SG.AG-give-1SG.REC-2SG.THM
'He gives you to me.'



(three out of four possible language types are attested)

Universal 12 (subsumes Universal 11):

On the scale of decreasing harmony of person-role association ("Canonical (i) > Clustering (ii/iii) > Crossing (iv)"), the upper end is always expressed by a simple construction, and the likelihood of special complex constructions being required increases.

Explanation: The less harmonic the association, the less frequent the pattern. More frequent patterns are more expected and therefore need less coding.

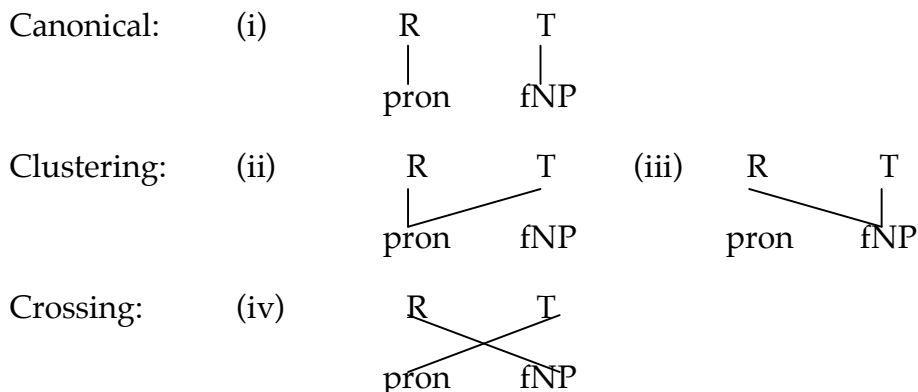
"complex construction" is verbal in monotransitive inverses, nominal in ditransitive inverses

5.4. Ditransitive pronoun-full NP inverses

cf. monotransitive pronoun-full NP inverse in Lummi:

(30) Lummi (Jelinek & Demers 1983:168)

- a. (pron>fNP) *xč̣i-t-s cə swəyʔqəʔ*
 know-TR-3SG.SUBJ the man
 'He knows the man.'
- b. (fNP>pron) **xč̣i-t-s cə swəyʔqəʔ*
 know-TR-3SG.SUBJ the man
 'The man knows him.'



Universal 13: On the scale of decreasing harmony of association of role and pronoun/ full NP ("Canonical (i) > Clustering (ii/iii) > Crossing (iv)"), the upper end is always expressed by a simple construction, and the likelihood of special complex constructions being required increases.

Explanation: The less harmonic the association, the less frequent the pattern. More frequent patterns are more expected and therefore need less coding.

ditransitive pronoun-full NP inverses:

(A) In Capeverdean Creole, the clitic pronouns are only used in the canonical pattern (i), cf. (31a-b). If both the R and the T are pronouns, they cannot be both expressed as clitics, **and the T must be expressed as an independent pronoun**, cf. (31c-d). This is also the case if T is a pronoun and R is a full NP, cf. (31e-f).

(31) Capeverdean Creole (Baptista 2003, Marlyse Baptista, p.c.)

- a. *El da=bu libru.*
 she give=you book
 'She gave you a book.'
- b. *El da=l libru.*
 she give=him book
 'She gave him a book.'
- c. **El da=bu=l.*
 she give=you=him
 'She gave you him=She gave him to you.'

- d. *El da=bu el.*
 she give=you he
 'She gave you him=She gave him to you.'
- e. **El da João=l.*
 she give João=her
 'She gave her to João.'
- f. *El da João el.*
 she give João her
 'She gave her to João.'

Similarly in Hausa (Chadic; Newman 2000):

- (32) a. *Naa báà=shì aikìi.*
 I.PFV give=him work.
 'I gave him work.'
- b. *Naa báà=tà aikìi.*
 I.PFV give=her work.
 'I gave her work.'
- c. **Naa báà=shì=tà.*
 I.PFV give=him=her
 'I gave him her=I gave her to him.'
- d. *Naa báà=shì ita.*
 I.PFV give=him her
 'I gave him her=I gave her to him.'

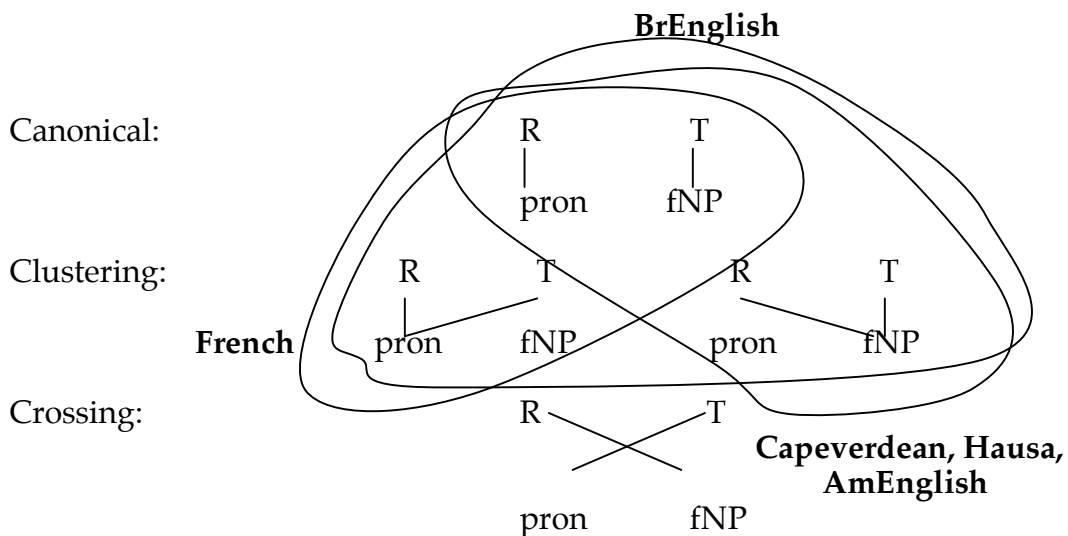
(B) In Lillooet (Salish; van Eijk 1997), the crossing pattern (iv) is impossible, and a **passive construction** must be used instead.

- (33) a. *ʔúm'n-as-Ø* *k^w-s-Sam* *ti-c'qáx'ʔ-a*
 give-3SG.SUBJ-3SG.OBJ ART-NMLZ-Sam ART-horse-ART
 'He gave Sam a horse.'
- b. **ʔúm'n-as-Ø* *k^w-s-Sam*
 give-3SG.SUBJ-3SG.OBJ ART-NMLZ-Sam
 'He gave it to Sam.'

(C) In British English, only the crossing pattern is excluded (**She gave Kim it*/**She gave it Kim*), and a circumlocution with the preposition *to* must be used instead (*She gave it to Kim*).

(D) American English also excludes the clustering pattern (ii) (**She gave me it*/**She gave it me*), requiring a complex construction here, too (*She gave it to me*).

(E) French excludes the crossing pattern (**Elle le donna Kim*) and the clustering pattern (iii) (**Elle donna Kim le livre*), requiring a complex construction here (*Elle le donna à Kim*, *Elle donna le livre à Kim*). However, French allows the clustering pattern (ii) (*Elle me le donna*).



Capeverdean/Hausa and American English differ in that Capeverdean/Hausa have full pronouns where the complex construction is required, while AmEnglish has a preposition. But both language types obey the same Universal 13.

6. More on the Ditransitive Person-Role Constraint

(see Haspelmath 2004)

DPRC (Bonet 1994: PCC = Person-Case Constraint):

"When both R and T are bound pronouns, T cannot be first/second person."

(23) French (e.g. Grevisse 1986:§657 (b) 1°)

- a. (1>3) *Agnès me la présentera.*
 Agnès 1SG.REC 3SG.F.THM present.FUT.3SG
 'Agnès will introduce her to me.'
- b. (3>1) **Agnès me lui présentera.*
 Agnès 1SG.THM 3SG.F.REC present.FUT.3SG
 'Agnès will introduce me to her.'
- c. *Agnès me présentera à elle.*
 Agnès 1SG.THM present.FUT.3SG to her
 'Agnès will introduce me to her.'

6.1. Some frequency figures

English (BNC online version, over 100 million word tokens)

		dative pronouns (<i>to</i>)		
		1st person	2nd person	3rd person
accusative pronouns	1st person	2	25	114
	2nd person	17	10	111
	3rd person	848	588	1697

German (Goethe corpus, IDS online corpus COSMAS, 1.4 million words)

		dative pronouns		
		1st person	2nd person	3rd person
accusative pronouns	1st person	4 (2%)	8 (4%)	33 (15%)
	2nd person	3 (1%)	0	1 (0%)
	3rd person	114 (51%)	18 (8%)	60 (27%)

6.2. Alternative explanations

6.2.1. A ban on doubly filled structural slots

three structural slots for preverbal clitic pronouns in French (e.g. Togeby 1982: 400)

Table 6.

ACC/DAT	ACC	DAT
me _{1SG}		
te _{2SG}	le _{3SG.M}	lui _{3SG}
se _{3REFL}	la _{3SG.F}	leur _{3PL}
nous _{1PL}	les _{3PL}	
vous _{2PL}		

Togeby 1982: **me te* is ungrammatical because *me* and *te* occupy the same slot

Emonds 1975: **me lui* is ungrammatical because *me* and *lui* occupy the same slot in deep structure

- slots are used as explanantia here, although they are really explananda (cf. also Haspelmath 1999a, where the same was argued for the "determiner" slot)

6.2.2. The Ditransitive Person-Role Constraint as inviolable and innate

Bonet 1994:43-44: "The [Person-Case constraint] ... has to be understood as a universal constraint which, as will be seen, is ranked highest in the grammar of all languages."

- counterexamples:

(34) Kabardian (Northwest Caucasian; Kumaxov & Vamling 1998:34)
 (3>2) *w-je-s-te-n-s'* 'I will give you to him.'
 2SGT-3SGR-1SGA-give-FUT-ASSRT

(35) Lakhota (Siouan; Van Valin 1977)
 (3>2) *ni-wicha-wa-kʔu*
 2SG.THM-3PL.REC-1SG.AG-give
 'I give you to them.'

(36) Noon (Northern Atlantic, Senegal; Soukka 2000:207)
 (3>2) *mi teeb-pi-raa*
 I present-3SG.REC-2SG.THM
 'I present you to her.'

=> The DPRC is not an absolute constraint, but only a preference.
 Preferences can be reformulated as universals:

Universal 14:

If a language has some combinations of Recipient-Theme bound pronouns, the Theme may always be 3rd person. (follows from Universal 12)

6.2.3. Clash between positional alignment requirements (Gerlach 1998, 2002)

Languages with DPRC effects have the following high-ranking constraints (Gerlach 1998:47,49; 2002):

(38)

ALIGN-L (+1, CS): 1st person clitics are initial in a clitic sequence.

ALIGN-L (+2, CS): 2nd person clitics are initial in a clitic sequence.

ALIGN-L (+lr, CS): Indirect object clitics are initial in a clitic sequence.

Sentences blocked by DPRC violate two of these constraints and are hence ungrammatical. Crucially, the constraint FAITH(arg)^M ("An argument role has a correspondent (i.e. a clitic or an affix) in the output") is ranked lower than the alignment constraints:

(39) Modern Greek (cf. Gerlach 1998:60)

'me to him'	ALIGN-L(+1,CS)	ALIGN-L(+lr,CS)	FAITH(arg) ^M
<i>me tu</i>		*!	
<i>tu me</i>	*!		
<i>me</i>			
<i>tu</i>			

problems:

- the alignment constraints cannot be universal (cf. Gensler 2003, who finds that Recipient-Theme order is not even preferred cross-linguistically); thus, a language violating universal 14 could be described if its R-T order is different
- hence, the constraints are not motivated

6.2.4. Markedness of person and case values

Grimshaw (2001:225-227) derives DPRC effects from the fact that in the ungrammatical combinations, both bound pronouns show a "marked" value for one feature:

- French **me lui* 'me to her': *me* (1st person) = marked value
lui (dative case) = marked value

"If first and second persons, dative, and reflexive are more marked than, respectively, third person, accusative, and nonreflexive..., it turns out that the impossible combinations of clitics are those that involve marked values for case, person, and /or reflexivity." (Grimshaw 2001:226)

— implemented by positing a constraint "MARK1ST/2ND&DAT", which penalizes combinations of the marked values 'first/second person' and 'dative'

problems:

— presupposes the contrast between a marked dative and an unmarked accusative case, which is lacking in Shambala (see 25), Arabic, and other languages; one cannot say that R in general is marked over T
 — seems to make the prediction that combinations with two third-person pronouns should be the most favored, whereas combinations with two non-third-person pronouns should be the least favored:

(40) *Markedness of bound-pronoun combinations with respect to person and case:*

	(A)		(B)		(C)		(D)	
	him	to-her	him	to-me	me	to-him	me	to-you
person	u	u	u	m	m	u	m	m
case	u	m	u	m	u	m	u	m

—if C is disfavored because it shows two marked values, D should be even more disfavored (but Catalan and Spanish allow D but rule out C, see (28))

—A should be even more favored than B (but Kambera prohibits A but allows B, see (29))

6.2.5. Harmonic alignment of person and role scales

DPRC-violating sentences show a lack of "harmony" between two scales (Person Scale and Role Scale) which are supposed to show harmonic alignment

Farkas & Kazazis 1980: 78

"[I]n the Rumanian clitic system, the case hierarchy [Ethical > Goal > Theme] and the personal hierarchy [1 > 2 > 3] are not supposed to conflict. Where there is no conflict..., the string is grammatical. Where there is strong conflict..., the sequence is unacceptable..."

Parodi 1998: 98-99

"What we end up with is a joint conditioning of clitic ordering by case and person. The hierarchy of syntactic functions and argument structure [i.e. A > R > T] has to be observed; the specificity hierarchy [i.e. 1/2 > 3] must be observed as well and in the same direction. The hierarchies are not allowed to cross; ... This means that in order for a sequence of two clitics to be allowed, the argument which is higher in the specificity hierarchy must have a higher position in terms of case."

Cf. Aissen's (1999) OT analysis of comparable data in Lummi (Coast Salish)

"Monotransitive Person-Role Constraint":

1st/2nd person pronouns cannot be patients

upper part of animacy scale (1,2 > 3) is aligned with relation scale (Subj > Obj):

(41) **Harmony scales**

Subj/1,2 \supset Subj/3

Obj/3 \supset Obj/1,2

Constraint hierarchies

*Subj/3 \gg *Subj/1,2

*Obj/1,2 \gg *Obj/3

(42) Input: V (Agent/3, Patient/1)	*Obj/1,2	*Subj/Pat
ACTIVE Agent/Subj/3 – Patient/Obj/1	*!	
☞ PASSIVE Patient /Subj/1 – Agent/Obl/3		*

analogous analysis for Ditransitive Person-Role Constraint:

(43) **Harmony scales**

Rec/1,2 \supset Rec/3

Thm/3 \supset Thm/1,2

Constraint hierarchies

*Rec/3 \gg *Rec/1,2

*Thm/1,2 \gg *Thm/3

(44) Input: V (Recipient/3, Theme/1)	*Thm/1,2	AVOID PRONOUN
<i>me lui présentera</i>	*!	
☞ <i>me présentera à lui</i>		*

- problems:
 - no principled account for the directionality of the alignment (why is Recipient associated with 1st/2nd person, rather than 3rd person?)
 - no principled account for which scales are aligned harmonically (why not align the role hierarchy with the number hierarchy?)
 - no principled account for the existence of "harmonic alignment" (why is this device allowed?)
 - no explanation for why the DPRC applies only to bound pronouns

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