Person on the edge

What typological gaps tell us about syntactic person restrictions

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9th December 2020

1 Person restrictions

In some languages, pronouns that can express the full range of person values (1P, 2P, 3P) in isolation, can not express specific person values when they co-occur with other pronouns of the same type:

(1) French [*Romance*]:

a. Ils **la- lui-** présenteront. 3.IO + 3.DO
they 3.F.DO- 3.IO- introduce.FUT.3PL
'They will introduce **him** to **her**.'

b. Ils **te- la-** présenteront. 2.IO + 3.DO
they 2.IO- 3.F.DO- introduce.FUT.3PL
'They will introduce **him** to **you**.'

c. Ils **me- la-** présenteront. 1.IO + 3.DO
they 1.IO- 3.F.DO- introduce.FUT.3PL
'They will introduce **him** to **me**.'

(2) a. *Ils **me- lui-** présenteront. ✗3.IO + 1.DO
they 1.DO- 3.IO- introduce.FUT.3PL
'They will introduce **me** to **her**.'

b. *Ils **te- lui-** présenteront. ✗3.IO + 2.DO
they 2.DO- 3.IO- introduce.FUT.3PL
'They will introduce **you** to **her**.'

c. *Ils **me- te-** présenteront. ✗1.IO + 2.DO
they 1.IO- 2.DO- introduce.FUT.3PL
'They will introduce **you** to **me**.'

d. *Ils **te- me-** présenteront. ✗2.IO + 1.DO
they 2.IO- 1.DO- introduce.FUT.3PL
'They will introduce **me** to **you**.' (Perlmutter 1971; Kayne 1975)

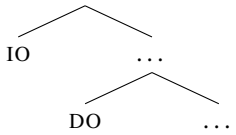
(3) *The Person-Case Constraint (STRONG version)*
If indirect object (IO) and direct object (DO) pronouns co-occur, the DO cannot be 1P or 2P.
(see Bonet 1991, 1994)

The restriction only occurs in specific syntactic constructions with some types of pronouns (e.g. clitic pronouns):

(4) a. *Lucille **te leur** présentera. ✗3.IO + 2.DO
Lucille 2.DO 3PL.IO introduce.FUT.3

b. Lucille **te** présentera à *elles*. 2.DO + PP.3.IO
Lucille 2.DO introduce.FUT.3 to them
'Lucille will introduce **you** to **them**.' (French; Řezáč 2011:93)

The pronoun is restricted in person when asymmetrically c-commanded by another pronoun:

(5) 

(henceforth also: IO ≫ DO)

[*1/2]

The pattern observed in French is by far not the only one, as person restrictions of some form or other can be found in languages from virtually every language family. The main points of cross-linguistic variation are:

1. *Strength of the person restriction*
   How many and which person combinations of pronouns are ungrammatical.
   - Strong restriction:
     ✗ 3.IO + 1.DO, ✗ 3.IO + 2.DO, ✗ 1.IO + 2.DO, ✗ 2.IO + 1.DO
   - Weak restriction:
     ✗ 3.IO + 1.DO, ✗ 3.IO + 2.DO
2. *Direction of the person restriction*
   Which of the two pronouns, in terms of their grammatical/thematic role, is person restricted.
   - Canonical restriction:
     ✗ 3.IO + 1/2.DO
   - Reverse restriction:
     ✗ 3.DO + 1/2.IO
3. *Domain of the person restriction*
   Which arguments are involved in the restriction.
   - Internal + internal argument:
     ✗ 3.IO + 1/2.DO
   - External + internal argument:
     ✗ 3.SU + 1/2.O

Why do person restrictions matter? The phenomenon exists at the intersection of syntax, morphology, and semantics. It also relates to several key questions in grammatical theorizing:

⇒ *Language design*: Can the crosslinguistic variation in person restrictions be accounted for under the assumption that the core syntactic operations are the same across all languages?

⇒ *Syntactic building blocks*: Why do only some pronouns yield person restrictions?

⇒ *Learnability*: How do children acquire person restrictions? The ungrammatical person combinations are negative evidence and the grammatical combinations are rare in the input.

⇒ *Autonomy of syntax*: Why does a semantically identified category (person) matter for syntax?

Goals:

[1] Establish the crosslinguistically possible and impossible person restriction patterns through a large-scale typological study—including two previously undocumented typological gaps;

[2] Propose a restricted theory of person restrictions that can derive all and only the attested patterns.

Proposal in a nutshell

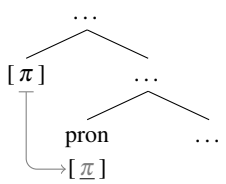
[1] Person restrictions arise in the syntax because of:

(a) The existence of pronouns which are inherently unspecified for a person (π) value and which must receive a person value from an external source, (6);

(b) Only phase heads (like *v*) can have inherently valued person features, (7);

(c) The person valuation of multiple pronouns is constrained by the standard locality and timing considerations that apply to syntactic operations, e.g. syntactic intervention effects, (8).

(6)



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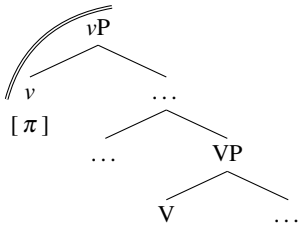

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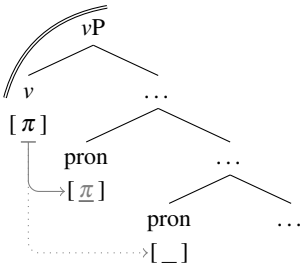


[2] The attested variation in restriction patterns is not the result of variation in syntactic operations, but:

(a) Differences in the internal structure of pronouns;

(b) The relative position of the relevant pronouns in relation to the phase head;

(c) The movement possibilities of the relevant pronouns.

2 A typological survey of person restrictions

2.1 The language sample

[1] Includes languages with different types of person restrictions, which crucially includes person restrictions that vary with respect to the pairs of arguments they affect;

[2] Includes languages where different types of person restrictions co-exist;

[3] Controls for external factors:

(a) Comparison of languages across unrelated language families (focusing on identifying similarities);

(b) Comparison of languages within specific language families (focusing on differences).

The language sample spans 107 languages from 26 families and 3 isolates.[a]

[1] Indo-European:
1 French
2 Spanish
3 Catalan
4 Italian
5 Romanian
6 German
7 Swiss German
8 Zürich German
9 Dutch
10 Swedish
11 English
12 Icelandic
13 Faroese
14 Slovenian
15 Bosn.-Croat.-Serb.
16 Czech
17 Polish
18 Bulgarian
19 Macedonian
20 Greek
21 Albanian
22 Kurdish
23 Pashto
24 Iron Ossetic
25 Digor Ossetic
26 Kashmiri

[2] Uralic:
27 Finnish
28 Hungarian
29 Eastern Mansi
30 Khanty/Ostyak
31 Tundra Nenets

[3] Afro-Asiatic:
32 Mod. St. Arabic
33 Classical Arabic
34 Cairene Arabic
35 Maltese
36 Senaya
37 Christian Barwar
38 Telkepe
39 Migama
40 Baraïn

[4] Nilo-Saharan:
41 Maasai/Maa

[5] Niger-Congo:
42 Sambaa
43 Haya
44 Swahili
45 Nyaturu/(Ki)Rimi
46 Limbum

[6] Kartvelian:
47 Georgian

[7] Northwest Caucasian:
48 Abhkaz
49 Adyghe

[8] Sino-Tibetan:
50 Hakha Chin
51 Chepang
52 Jyarong
53 Nocte
54 Tangut

[9] Austronesian:
55 Kambera
56 Manam
57 Tagalog

[10] Sepik-Ramu:
58 Yimas
59 Manambu

[11] Toricelli/Monumbo:
60 Monumbo

[12] Pama-Nyungan:
61 Djaru
62 Warlpiri

[13] Chukotko-Kamchatkan:
63 Chukchi
64 Koryak
65 Alutor
66 Itelmen

[14] Penutian:
67 Sahaptin
68 Takelma

[15] Algic:
69 Algonquin
70 Arapaho
71 Blackfoot
72 Plains Cree
73 Delaware
74 Meskwaki/Fox
75 Mi'kmaq
76 Maniwaki
77 Ojibwe
78 Passamaquoddy
79 Potawatomi

[16] Kiowa-Tanoan:
80 Southern Tiwa
81 Picurís
82 Arizona Tewa
83 Kiowa

[17] Iroquoian:
84 Mohawk
85 Cherokee

[18] Uto-Aztecan:
86 Tetelcingo Nahuatl
87 Classical Nahuatl
88 O'odham

[19] Mayan:
89 Tzotzil
90 Kaqchikel

[20] Oto-Manguean:
91 Oaxaca Zapotec

[21] Quechuan:
92 Quechua

[22] Salish:
93 Bella Coola
94 Clallam
95 Lummi
96 Halkomelem
97 Squamish
98 Lushootseed

[23] Dené-Yeniseian:
99 Koyukon
100 Navajo

[24] Eskimo-Aleut:
101 Labrador Inuttut
102 Inuktitut

[25] Araucanian:
103 Mapudungun

[26] Tupian:
104 Paraguayan Guaraní

isolates:
105 Basque
106 Zuni
107 Kutenai

[a] This is an expansion of the two previous largest samples, from Albizu (1997) and Haspelmath (2004). It includes almost all of the 64 languages discussed in them, which were re-examined for the current study, occasionally identifying some overlooked person restrictions. At the time of the talk, I have yet to examine the relevant data from Kera [*Chadic*], Noon [*Cangin*], Kabardian [*Northwest Caucasian*], and Lakhota [*Siouan*] (the last three Haspelmath reports as having no person restrictions).

2.2 Variation in person restriction patterns

2.2.1 Variation in restriction strength

(9) *The Person-Case Constraint (PCC)*

a. *STRONG version*
If IO and DO pronouns co-occur, the DO cannot be 1/2P. (cf. French above)

b. *WEAK version*
If IO and DO pronouns co-occur, and IO is 3P, the DO cannot be 1/2P.[1] (Bonet 1991, 1994)

[1] I use WEAK to refer to additional patterns beyond the basic one described here (see Appendix)—what unifies WEAK patterns is the possibility of a restricted pronoun to be non-3P. All the generalizations I discuss also hold for WEAK patterns in this broader sense.

(10) Classical Arabic [*Semitic*]: **WEAK restriction**

a. ʔaʕtˀaː **-haː -hʊ** 3.IO ≫ 3.DO
gave.3 -3.F.IO -3.M.DO
'He gave **him/it** to **her**.'

b. ʔaʕtˀaː { **-niː / -ka** } **-hɪ/u** 1/2.IO ≫ 3.DO
gave.3 { -1.IO / -2.IO } -3.M.DO
'He gave **him/it** to **me**.'

c. ʔaʕtˀaː **-niː -ka** 1.IO ≫ 2.DO
gave.3 -1.IO -2.DO
'He gave **you** to **me**.'

d. *ʔaʕtˀaː **-huː** { **-niː / -ka** } ✗ 3.IO ≫ 1/2.DO
gave.3 -3.M.IO { -1.DO / -2.DO }
'He gave **me/you** to **him**.' (Walkow 2014:139–40)

2.2.2 Variation in restriction direction

(11) *Canonical PCC (STRONG version)*
If IO and DO pronouns co-occur, the DO cannot be 1/2P.

(12) Slovenian [*Slavic*]:

a. Mama **mu ga** bo predstavila. 3.IO ≫ 3.DO
mom 3.M.DAT 3.M.ACC FUT.3 introduce.F
'Mom will introduce **him**$_i$ to **him**$_k$.'

b. Mama { **mi / ti** } **ga** bo predstavila. 1/2.IO ≫ 3.DO
mom { 1.DAT / 2.DAT } 3.M.ACC FUT.3 introduce.F
'Mom will introduce **him** to **me/you**.'

c. *Mama **mi te** bo predstavila. ✗ 1.IO ≫ 2.DO
mom 1.DAT 2.ACC FUT.3 introduce.F
'Mom will introduce **you** to **me**.'

d. *Mama **mu** { **me / te** } bo predstavila. ✗ 3.IO ≫ 1/2.DO
mom 3.M.DAT { 1.ACC / 2.ACC } FUT.3 introduce.F
'Mom will introduce **me/you** to **him**.' (Stegovec 2015:108–9)

(13) *Reverse PCC (STRONG version)*
If IO and DO pronouns co-occur, the IO cannot be 1/2P.

(14) a. Mama **ga mu** bo predstavila. 3.DO ≫ 3.IO
mom 3.M.ACC 3.M.DAT FUT.3 introduce.F
'Mom will introduce **him**$_i$ to **him**$_k$.'

b. *Mama **ga** { **mi / ti** } bo predstavila. ✗ 3.DO ≫ 1/2.IO
mom 3.M.DAT { 1.ACC / 2.ACC } FUT.3 introduce.F
'Mom will introduce **him** to **me/you**.'

c. *Mama **te mi** bo predstavila. ✗ 2.DO ≫ 1.IO
mom 2.ACC 1.DAT FUT.3 introduce.F
'Mom will introduce **you** to **me**.'

d. Mama { **me / te** } **mu** bo predstavila. 1/2.DO ≫ 3.IO
mom { 1.ACC / 2.ACC } 3.M.DAT FUT.3 introduce.F
'Mom will introduce **me/you** to **him**.' (Stegovec 2015:108–9)

2.3 Looking beyond the standard cases

2.3.1 Person restrictions between external and internal arguments (EA-IA restrictions)

(15) *EA-IA person restriction (STRONG version)*
If EA and IA pronouns co-occur, the IA pronoun cannot be 1/2P.

(16) Arizona Tewa [*Kiowa-Tanoan*]:

a. *sen* **mán-** mun. — 3.EA ≫ 3.IA
man 3>3- see
'**He** saw **him**, the man.'

b. *sen* { **dó-** / **ná:-** } mun. — 1/2.EA ≫ 3.IA
man { 1>3- / 2>3- } see
'**I/You** saw **him**, the man.'

c. **na: ų* **???-** mun. — ✗ 1.EA ≫ 2.IA
I you 1>2- see
'**I** saw **you**'

d. **sen* **???-** mun. — ✗ 3.EA ≫ 1/2.IA
man 3>1/2- see
'The man, **he** saw **me/you**.' (Kroskrity 1977:86,169,171)

Obligatory use of passive with banned person combinations:

(17) a. *ų* na:n-di **wí-** tay. — 2.IA.SU + PP.1.EA
you we-OBL PASS(1>2)- know
'**You** are known (or recognized) by us.'

b. *na:* { sen-en-di / ų-di } **dí-** $k^{w}ek^{hw}$ɛ́di. — 1.IA.SU + PP.3/2.EA
I { man-PL-OBL / you-OBL } PASS(3/2>1)- shoot
'**I** was shot by the man/by you.' (Kroskrity 1985:311)

(18) *EA-IA person restriction (WEAK version)*
If EA and IA pronouns co-occur, and the EA is 3P, the IA pronoun cannot be 1/2P.

(19) Lummi [*Salish*]:

a. xˇči-t **-Ø -s** — 3.EA ≫ 3.IA
know-TR -3.O -3.SU.ERG
'**He** knows **him**.'

b. xˇči-t **-Ø** { **-sən** / **-sx^{w}** } — 1/2.EA ≫ 3.IA
know-TR -3.O { -1.SU / -2.SU }
'**I/you** know **him**.'

c. xˇči-t **-oɪ̯əs -sən** — 1.EA ≫ 2.IA
know-TR -1/2.O -1.SU
'**I** know **you**.'

d. *xˇči-t **-oɪ̯əs -əs** — ✗ 3.EA ≫ 1/2.IA
know-TR -1/2.O -3.SU.ERG
'**He** knows **you/me**.' (Jelinek and Demers 1983:168)

2.3.2 Direct/inverse systems

In so-called *direct/inverse systems* of alignment, the morphological expression of arguments on the verb depends on the person combination; the direct paradigm is subject to a person restriction:

(20) Mapudungun [*Araucanian*]: **STRONG EA-IA restriction**

a. mütrüm **-fi -y** 3.EA ≫ 3.IA
call -3.O -3.SU
'**He** called **him**.'

b. mütrüm **-fi** { **-n** / **-mi** } 1/2.EA ≫ 3.IA
call -3.O { -1.SU / -2.SU }
'**I/you** called **him**.'

c. *mütrüm -y**-u** **-n** ✗ 1.EA ≫ 2.IA
call -IND-1>2 -1.SU
'**I** called **you**.'

d. *mütrüm { **-n** / -y**-m** } **-y** ✗ 3.EA ≫ 1/2.IA
call { -1.O.IND / -IND-3>2 } -3.SU
'**He** called **me/you**.' (Smeets 2008:153–65,367)

Obligatory use of inverse construction (cf. underlined morpheme) with banned person combinations:

(21) a. mütrüm-e -y**-u** **-Ø** 1.EA ≫ 2.IA
call-INV -IND-1>2 -1.SU.DAT
'**I** called **you(sg)**.'

b. mütrüm-e { **-n** / -y**-m** } **-ew** 3.EA ≫ 1/2.IA
call-INV { -1.O.IND / -IND-3>2 } -3.SU.DAT
'**He** called **me/you(sg)**.' (Smeets 2008:367)

⇒ The function of the inverse construction here is no different than the function of prepositional datives with IA-IA restrictions (cf. French) or passives with other EA-IA restrictions (cf. Arizona Tewa).

In sum: All the points of variation are independent of each other (cf. Table 1); e.g. the STRONG/WEAK split exists across all types of restrictions seen above, and so does the canonical/reverse restriction variation.

Table 1: Summary of different person restriction types

Canonical IA-IA restrictions (the PCC)				
STRONG:	3.GL ≫ 3.TH	1/2.GL ≫ 3.TH	***1/2.GL ≫ 2/1.TH**	***3.GL ≫ 1/2.TH**
WEAK:	3.GL ≫ 3.TH	1/2.GL ≫ 3.TH	1/2.GL ≫ 2/1.TH	***3.GL ≫ 1/2.TH**
Canonical EA-IA restrictions (including direct/inverse systems)				
STRONG:	3.EA ≫ 3.IA	1/2.EA ≫ 3.IA	***1/2.EA ≫ 2/1.IA**	***3.EA ≫ 1/2.IA**
WEAK:	3.EA ≫ 3.IA	1/2.EA ≫ 3.IA	1/2.EA ≫ 2/1.IA	***3.EA ≫ 1/2.IA**
Canonical + Reverse IA-IA restrictions				
STRONG:	3.GL/TH ≫ 3.TH/GL	1/2.GL/TH ≫ 3.TH/GL	***1/2.GL/TH ≫ 2/1.TH/GL**	***3.GL/TH ≫ 1/2.TH/GL**
WEAK:	3.GL/TH ≫ 3.TH/GL	1/2.GL/TH ≫ 3.TH/GL	1/2.GL/TH ≫ 2/1.TH/GL	***3.GL/TH ≫ 1/2.TH/GL**
Canonical + Reverse EA-IA restrictions				
STRONG:	3.EA/IA ≫ 3.IA/EA	1/2.EA/IA ≫ 3.IA/EA	***1/2.EA/IA ≫ 2/1.IA/EA**	***3.EA/IA ≫ 1/2.IA/EA**
WEAK:	3.EA/IA ≫ 3.IA/EA	1/2.EA/IA ≫ 3.IA/EA	1/2.EA/IA ≫ 2/1.IA/EA	***3.EA/IA ≫ 1/2.IA/EA**
Overarching abstract pattern				
STRONG:	3 ≫ 3	1/2 ≫ 3	***1/2 ≫ 2/1**	***3 ≫ 1/2**
WEAK:	3 ≫ 3	1/2 ≫ 3	1/2 ≫ 2/1	***3 ≫ 1/2**

For reasons that will soon become clear, I have shifted to talking about person restriction types in terms of thematic role pairs rather than grammatical role pairs:

- *EA-IA restrictions* occur between external argument (EA) and internal argument (IA) pronouns;
- *IA-IA restrictions* occur between internal argument pronouns: Goal (GL) and Theme (TH) pronouns.

2.4 Two crosslinguistic gaps

2.4.1 The strength gap

In some languages, EA-IA and IA-IA restrictions co-exist and can even be of different strengths:

(22) Southern Tiwa [*Kiowa-Tanoan*]: **WEAK EA-IA restriction**

a. **Ø-** mũ-ban. 3.EA ≫ 3.IA
3>3- see-PAST
'**He** saw **him**.'

b. { **ti-** / **a-** } mũ-ban. 1/2.EA ≫ 3.IA
{ 1>3- / 2>3- } see-PAST
'**I/You** saw **him**.'

c. **i-** mũ-ban. 1.EA ≫ 2.IA
1>2- see-PAST
'**I** saw **you**'

d. **seuan* **???-** mũ-ban. ✗ 3.EA ≫ 1/2.IA
man.A 3>1/2- see-PAST
'The man, **he** saw **me/you**.' (Allen and Frantz 1978:11–2)

Even when the passive bypasses the WEAK EA-IA restriction, the STRONG IA-IA restriction remains:

(23) Southern Tiwa [*Kiowa-Tanoan*]: **STRONG IA-IA restriction**

a. 'uide { **tow-** / **ow-** } wia-ban. 1/2.EA ≫ 3.GL ≫ 3.TH
child { 1>3>3PL- / 2>3>3PL- } give-PAST
'**I/You** gave **them** to **him/her**, the child.'

b. **kam-** musa- wia-ban. 1.EA ≫ 2.GL ≫ 3.TH
1>2>3PL- cat(PL)- give-PAST
'**I** gave **them**, the cats, to **you**.'

(24) a. liorade-ba **in-** khwian- wia-che-ban **passive:** 1.GL.SU ≫ 3.TH.O + PP.3.EA
lady-INSTR 1>3- dog- give-PASS-PAST
'**I** was given **him**, the dog, by the lady.'

b. *liorade-ba **???-** wia-che-ban **passive:** ✗ 1.GL.SU ≫ 2.TH.O + PP.3.EA
lady-INSTR 1>2- give-PASS-PAST
'**I** was given **you** by the lady.' (Allen and Frantz 1978:13–6)

But: All the possible combinations of coexisting EA-IA and IA-IA restrictions are *not attested*.

Table 2: Languages according to restriction strength in EA-IA and IA-IA domains

	Total: **115**								
EA-IA IA-IA	∅ STRONG	WEAK STRONG	STRONG STRONG	∅ WEAK	WEAK WEAK	STRONG WEAK	∅ ∅	WEAK ∅	STRONG ∅
	Spanish	Kashmiri*	Tangut	Spanish'	Alutor		German'	Hungarian	Kurdish
	French	Maasai	Senaya	Catalan'			Dutch'	Chepang*	Mupudungun
	Catalan	Chukchi	Telkepe	Italian'			Swedish'	Jyarong	Eastern Mansi
	Italian	Sahaptin	Arizona Tewa	Romanian			English'	Nocte	Tundra Nenets
	English	Algonquin	Oaxaca Zapotec	German			Icelandic*	Koryak*	Christian Barwar
	Slovenian	Blackfoot		Zürich German			Polish	Zuni	Kaqchikel
	Bulgarian	Plains Cree		Swiss German			Khanty	Bella Coola	Labrador Inuttut*
	Macedonian	Delaware		Dutch			Abkhaz*	Clallam	
	Greek	Meskwaki/Fox		Swedish			Tagalog*	Lummi	
	Albanian	Mi'kmaq		Slovenian'			Manambu*	Halkomelem	
	Iron Ossetic	Ojibwe		B-C-S			Itelmen*	Squamish	
	Basque	Passamaquoddy		Czech			Class. Nahuatl*	Arapaho	
	Cairene Arabic	Southern Tiwa		Bulgarian'			Lushootseed	Pashto	
	Maltese	Picuris		Macedonian'			Kutenai		
	Migama	Cherokee		Iron Ossetic'			Koyukon		
	Baraïn	Quechua		Digor Ossetic			Navajo		
	Sambaa	Paraguayan Guaraní		M. S. Arabic			Inuktitut*		
	Nyaturu			Class. Arabic					
	Georgian			Sambaa'					
	Kambera			Haya					
	Manam			Swahili					
	Yimas			Limbum					
	Monumbo			Lai					
	Warlpiri			Djaru					
	Mohawk			Adyghe					
	Takelma								
	Kiowa								
	Tetelcingo Nahuatl								
	O'odham								
	Tzotzil								
	30	**17**	**5**	**25**	**1**	**0**	**17**	**13**	**7**

Table 3: Number languages with restrictions in both EA-IA and IA-IA domains

IA-IA \ EA-IA	WEAK	STRONG
WEAK	1	**0**
STRONG	17	5

The generalization describing the crosslinguistically possible and impossible languages with respect to the parameters on restriction strength and affected arguments can be stated as:

(25) *Strength Generalization.* If a language has person restrictions in both the EA-IA and IA-IA domain, the IA-IA person restriction cannot be weaker than the EA-IA person restriction.

2.4.2 The direction gap

We saw with Slovenian that IA-IA restrictions (i.e. the PCC) can come in *canonical* or *reverse* versions:

(11) *Canonical STRONG IA-IA restriction*
If GL and TH pronouns co-occur, the TH cannot be 1/2P.

(13) *Reverse STRONG IA-IA restriction*
If GL and TH pronouns co-occur, the GL cannot be 1/2P.

The same variation exists with EA-IA restrictions, which also come in *canonical* or *reverse* versions:

(26) *Canonical STRONG EA-IA restriction*
If EA and IA pronouns co-occur, the IA cannot be 1/2P.

(27) Kaqchikel [*Quichean-Mamean*]:

a. ja { *yïn* / *rat* } x- { **in-** / **at-** } ax-an *ri achin* — 1/2.EA ≫ (3.IA)
FOC { me / you } COM- { 1- / 2- } hear-AF the man
'It was **me/you** that heard **him**, the man.'

b. *ja *yïn* x- **in-** ax-an *rat* — ✗ 1.EA ≫ (2.IA)
FOC me COM- 1- hear-AF you
'It was **me** that heard **you**.'

c. *ja *ri achin* x- **Ø-** ax-an { *yïn* / *rat* } — ✗ 3.EA ≫ (1/2.IA)
FOC the man COM- 3.ABS- hear-AF { me / you }
'It was **him**, the man, that heard **me/you**.' (Preminger 2014:18,22)

(28) *Reverse STRONG EA-IA restriction*
If EA and IA pronouns co-occur, the EA cannot be 1/2P.

(29) a. ja *ri achin* x- { **in-** / **at-** } ax-an { *yïn* / *rat* } — 1/2.IA ≫ (3.EA)
FOC the man COM- { 1- / 2- } hear-AF { me / you }
'It was **him**, the man, that heard **me/you**.'

b. *ja *rat* x- **in-** ax-an *yïn* — ✗ 1.IA ≫ (2.EA)
FOC you COM- 1- hear-AF me
'It was **you** that heard **me**.'

c. *ja { *yïn* / *rat* } x- **Ø-** ax-an *ri achin* — ✗ 3.IA ≫ (1/2.EA)
FOC { me / you } COM- 3.ABS- hear-AF the man
'It was **me/you** that heard **him**, the man.' (Preminger 2014:18,22)

But: Both in the EA-IA and IA-IA domain, reverse restrictions do not occur freely.

Table 4: Languages according to restriction direction

110					
EA-IA			IA-IA		
canonical-only	canonical + reverse	reverse-only	canonical-only	canonical + reverse	reverse-only
Kurdish	Pashto		French	German*	
Kashmiri	Chepang		Spanish	Zürich German	
Hungarian	Tangut		Catalan	Slovenian	
Eastern Mansi	Arapaho		Italian	Czech*	
Tundra Nenets	Algonquin		Romanian	Maasai/Maa	
Senaya	Blackfoot		Swiss German	Haya	
Christian Barwar	Plains Cree		Dutch	Djaru	
Telkepe	Delaware		Swedish	Alutor	
Maasai/Maa	Maniwaki		English*	Quechua	
Jyarong	Ojibwe		B-C-S	Adyghe*	
Nocte	Passamaquoddy		Bulgarian		
Sahaptin	Potawatomi		Macedonian		
Mi'kmaq	Meskwaki/Fox		Greek		
Southern Tiwa	Kaqchikel		Albanian		
Picuris	Zuni		Iron Ossetic		
Arizona Tewa	Quechua		Digor Ossetic		
Clallam			Kashmiri		
Lummi			Basque		
Halkomelem			M. S. Arabic		
Squamish			Classical Arabic		
Mapudungun			Cairene Arabic		
Labrador Inuttut*			Maltese		
Oaxaca Zapotec			Senaya		
Paraguayan Guaraní			Telkepe		
Cherokee			Migama		
			Baraïn		
			Sambaa		
			Swahili		
			Nyaturu		
			Limbum		
			Georgian		
			Hakha Chin		
			Kambera		
			Manam		
			Yimas		
			Warlpiri		
			Chukchi		
			Sahaptin		
			Takelma		
			Algonquin		
			Blackfoot		
			Plains Cree		
			Delaware		
			Mi'kmaq		
			Maniwaki		
			Ojibwe		
			Passamaquoddy		
			Potawatomi		
			Southern Tiwa		
			Picuris		
			Arizona Tewa		
			Tetelcingo Nahuatl		
			O'odham		
			Tzotzil		
			Oaxaca Zapotec		
			Paraguayan Guaraní		
			Cherokee		
			Mohawk		
25	**17**	**0**	**58**	**10**	**0**

The distribution of reverse person restrictions can be described with the following generalization:

(30) *Direction Generalization.* If a language has a *reverse* person restriction in the EA-IA or IA-IA domain, it must also have a *canonical* counterpart of the same person restriction.

3 Deriving person restrictions

Desiderata:

1. The analysis must capture the syntactic nature of the restrictions and their sensitivity to pronoun type;
2. Variation in the restriction patterns should not take place "in a vacuum"—it must be tied to independent syntactic cues (e.g. in order for the restrictions to be learnable in the absence of negative evidence);
3. The analysis should explain the typological gaps and the rarity of certain restriction patterns.

3.1 Minimal pronouns

Person restrictions only occur with *deficient pronouns* (weak/clitic pronouns), but crucially not all deficient pronouns give rise to person restrictions—deficiency is a necessary factor but not a sufficient one.

(31) Slovenian [*Slavic*]:

a. *Mama **mu** **te** bo predstavila. ✗3.GL ≫ 2.TH
mom 3.M.DAT 2.ACC will introduce

b. Mama bo predstavila *njemu* *tebe*. 3.GL ≫ 2.TH
mom will introduce him.DAT you.ACC
'Mom will introduce **you** to **him**.'

(32) Polish [*Slavic*]:

Jak **mu** **cię** nieprzytomną dostarczą, … 3.GL ≫ 2.TH
when 3.M.DAT 2.ACC unconscious deliver …
'When they deliver **you** to **him** unconscious, …' (Bondaruk 2012:68)

An independent difference: Not a minimal pair only with the person restriction—Slovenian requires the use of deficient pronouns in variable binding contexts (cf. the *Montalbetti Effect*; Montalbetti 1984), but not Polish:

(33) Nihče$_i$ noče, da { **ga**$_{i,k}$ / *njega*$_{k,*i}$ } povabim. Slovenian
no.one.NOM NEG.want.3 that { 3.M.ACC / him.ACC } invite.1
'No one$_i$ wants that I invite **him**$_{i,k}$.'

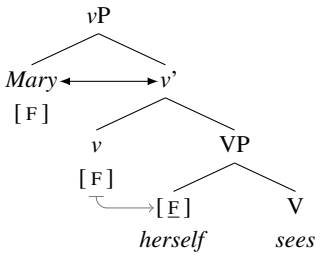
(34) Każdy chce że-by { **go**$_{i,k}$ / *jego*$_{i,k}$ } zaprosili. Polish
everybody wants that-SBJV { 3.M.ACC / him.ACC } invited.PL
'Everybody$_i$ wants that they invite **him**$_{i,k}$.' (p.c. A. Pietraszko; M. Dadan)

The link between person restrictions and binding (also found in other languages) suggests that the inherent deficiency behind person restrictions is the same as the deficiency behind the special binding behavior:

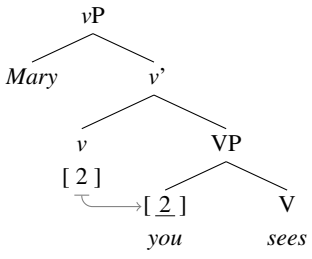
(a) Kratzer (2009): Bound pronouns are *minimal pronouns* that must receive their φ-feature value from the antecedent via feature transfer initiated by a mediating phase head, (35);

(b) **Proposal:** Person restrictions arise with minimal pronouns that receive a person value via agreement, (36); the restriction occurs if an intervening pronoun interferes with the valuation, (37).

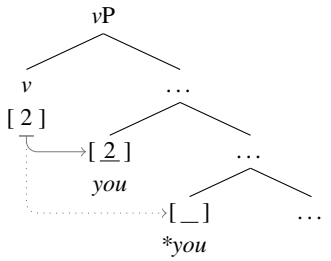
(35) Binding:



(36) Agreement:



(37) Person restriction:



Key assumptions of the proposal:

(a) *Minimal pronouns* outside binding contexts have *unvalued person features*, but all their *other φ-features, like number, are always valued*;

(b) Valued person features are found only on *phase heads*, which can then have *valued person features*, but all their *other φ-features are unvalued*;

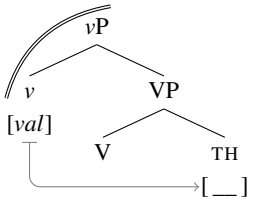
(c) The only way such a minimal pronoun can be 1/2P is by receiving that person value under *Agree* with a local phase head, if that fails, the pronoun can only receive a 3P value as a default value.

Scarcity of resources: I adopt a theory of phases where the extended projections of all major lexical categories, which includes verbs, nouns, prepositions, and adjectives, are phases (see Bošković 2013, 2014):

(a) If there is no more than one minimal pronoun inside a phase—*v*P by default with the verbal domain—then no person restriction arises as every pronoun can receive a person value, (38) & (39);

(b) Person restrictions arise when multiple pronouns are present in the same phase, (40).

(38)



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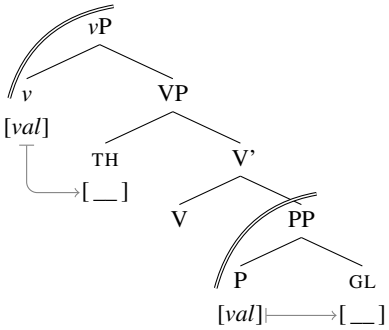
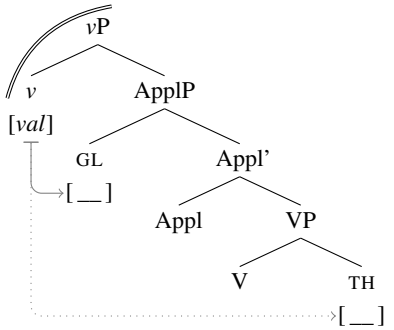


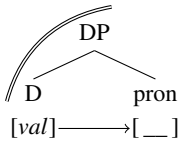
(40)



Feature deficiency: The relevant deficient pronouns are too small to project a phase, so they can only have unvalued person, (41), unlike strong pronouns, which are just like noun phrases in that they are phases, (42).

(41) pron
[__]

(42)



The use of deficient pronouns is enforced by principles of representational economy:

(43) *Minimize Structure.* Given two extended projections of the same lexical item: α and β, if α has fewer syntactic nodes than β, β is used iff α is independently ruled out.[2]

Crucially: Agree is always the same operation and cannot be parameterized.

(44) *Agree* can be established between an active probe and an accessible matching goal:
   a. A goal G_1 is accessible to a probe P if the matching goal is in P's c-command domain and there is no matching goal G_2, such that G_2 asymmetrically c-commands G_1 (i.e. *Agree Closest*);
   b. Unvalued features ([F:__]) are active probes, while valued features of the same feature type ([F:val]) are their matching goals.

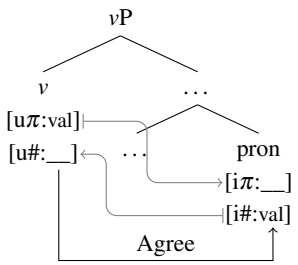
Only departure from Chomsky (2000): interpretable features ([iF]) may enter the derivation unvalued and uninterpretable features ([uF]) may enter the derivation valued (Pesetsky and Torrego 2007; Bošković 2011).

[2]Related to: *Avoid Pronoun* (Chomsky 1981:65), *The Minimal Structure Principle* (Law 1991), *Structural Economy Principle* (Safir 1993:64), Speas (1994:186-187), *Minimize Structure* (Cardinaletti and Starke 1994:47, 1999:198), Chomsky (1995:294), Bošković (1997:37–9), *Minimize Restrictors!* (Schlenker 2005:391), and *Minimize DP!* (Patel-Grosz and Grosz 2017:279).

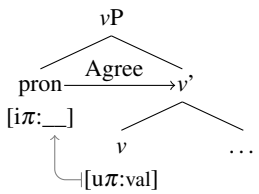
3.2 Deriving the STRONG/WEAK restriction variation

What matters is how the person features (π) of the pronouns are valued: (a) piggybacking on the valuation of other features, like number (#) (cf. (45)), or (b) directly in the specifier of the phase head (cf. (46)).

(45)



(46)



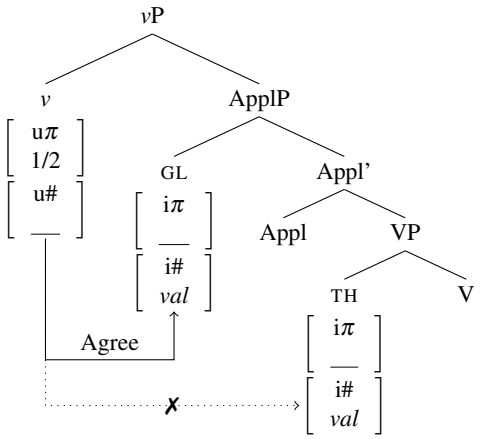
3.2.1 Deriving STRONG person restrictions (IA-IA domain)

With STRONG restrictions, the structurally lower pronoun must always be 3P, due to *Agree Closest*:

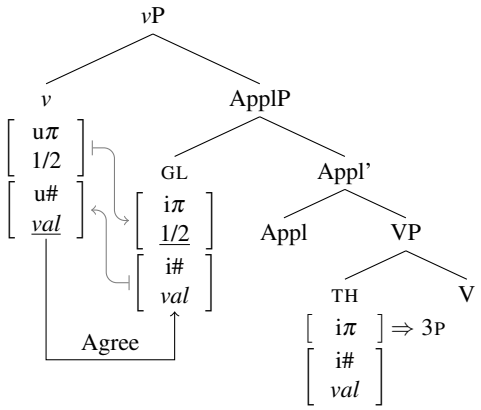
⇒ Person (π) valuation piggybacks on number (#) valuation due to *Maximize Agree*;

⇒ Agree is impossible between *v* and TH because GL is closer, so TH must get default 3P.

(47) a.



b.



(48) *Maximize Agree.* If a probe matches a goal, all matching features on the probe and goal must be valued at that point in the derivation. (cf. Řezáč 2004:477)

3.2.2 Deriving WEAK person restrictions (IA-IA domain)

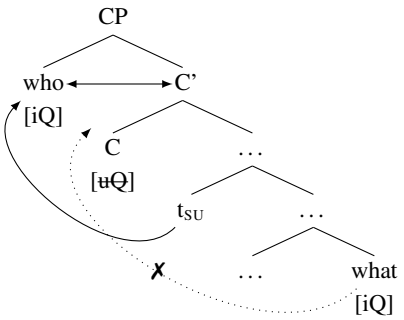
With WEAK restrictions, given pronouns $X \gg Y$, the Y pronoun cannot be 1/2P unless the X is also 1/2P.

(49) *Superiority.* If $X \gg Y$, then Y cannot move unless X undergoes the same type of movement first.

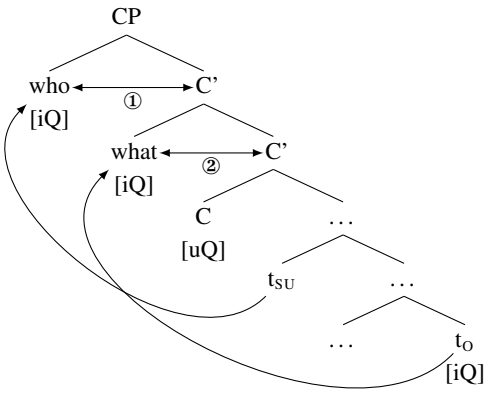
Superiority in *wh*-movement following Bošković (1999); Richards (2001):

- Single *wh*-movement: *Shortest Move* + deletion of [uQ] under checking of [iQ] (cf. (50)), vs.
- Multiple *wh*-movement: *Shortest Move* + no deletion of [uQ] under checking of [iQ] (cf. (51)).

(50)

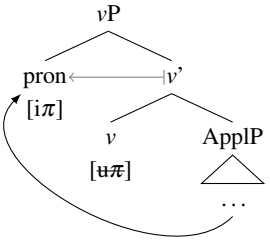


(51)

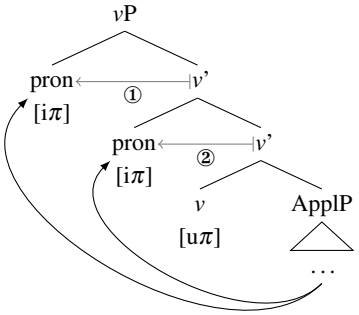


Proposal: WEAK restriction patterns look the same because they arise in the same way.

(52) a. One 1/2P pronoun:



b. Two 1/2P pronouns:



Why multiple valuation?
Valued uninterpretable features, like [uπ:val] on *v*, are "born checked"; their deletion upon taking part in valuation is in principle optional (cf. Bošković 2011 on status of valued uninterpretable features).

Source of variation: Richer internal structure of minimal pronouns blocks valuation by piggybacking:

(53) STRONG restriction:

pron
$\begin{bmatrix} \text{iπ} \\ \text{—} \end{bmatrix}$
$\begin{bmatrix} \text{i\#} \\ \textit{val} \end{bmatrix}$

(54) WEAK restriction:

pron
$\begin{bmatrix} \text{iπ} \\ \text{—} \end{bmatrix}$ $\begin{bmatrix} \text{i\#} \\ \textit{val} \end{bmatrix}$

Different person values from one source: Feature geometry for person, where *speaker* ([1]) features are dependent on *participant* ([2]) features—represented as [2[1]] (has an effect on valuation).

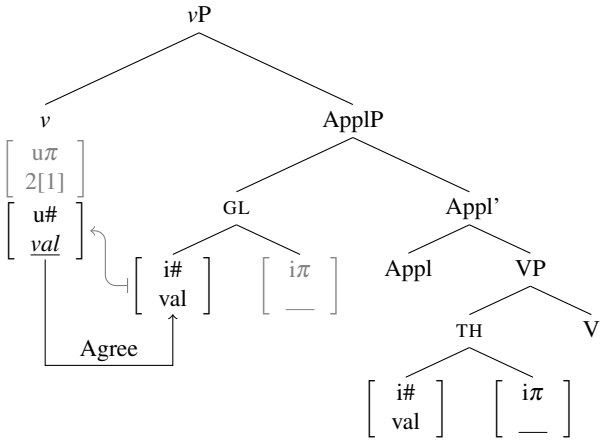
(55) *v*
$\begin{bmatrix} \text{uπ} \\ \text{2[1]} \end{bmatrix}$ (1P, 2P)

(56) *v*
$\begin{bmatrix} \text{uπ} \\ \text{2} \end{bmatrix}$ (2P)

(57) *v*
$\begin{bmatrix} \text{uπ} \end{bmatrix}$ (3P)

Derivation starts the same as above, but richer pronoun structure interferes with *Maximize Agree*:

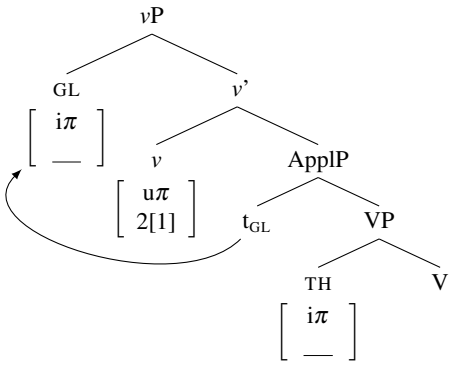
(58)



(48) *Maximize Agree.* If a probe matches a goal, all matching features on the probe and goal must be valued at that point in the derivation.

Because valuation of [π] can not piggyback on valuation of [#], GL must move to *v* in order to be valued:

(59) a.



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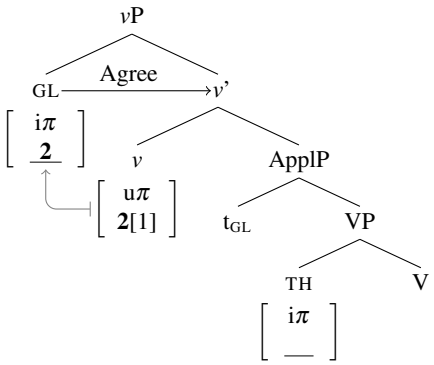
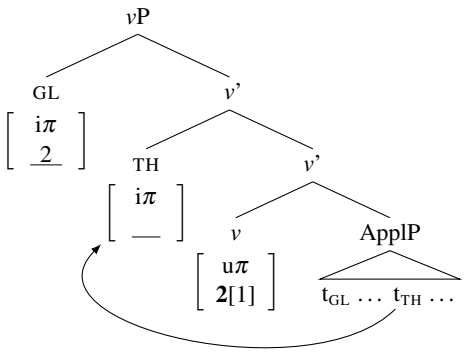


The TH can then also move to Spec*v*P, 'tucking in' (Richards 2001) under the GL, and its [π] can be valued:

(60) a.



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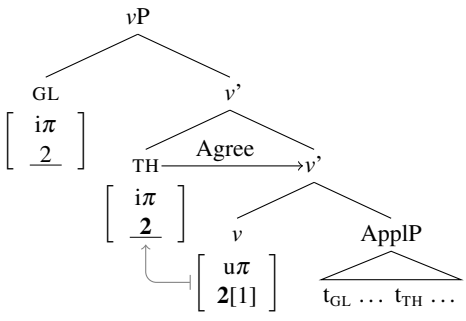
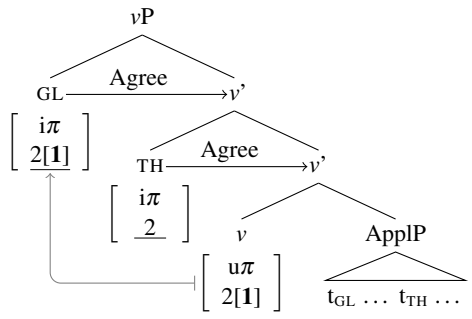
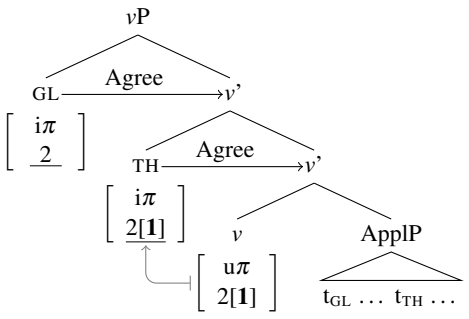


Due to [1] features being dependent on [2], all [2]-valuation must precede [1]-valuation, but either pronoun in Spec*v*P can be valued as 1P person, as they are both in an Agree relation with *v*:

(61)

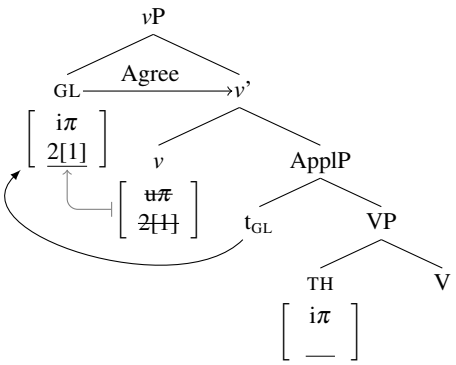


(62)

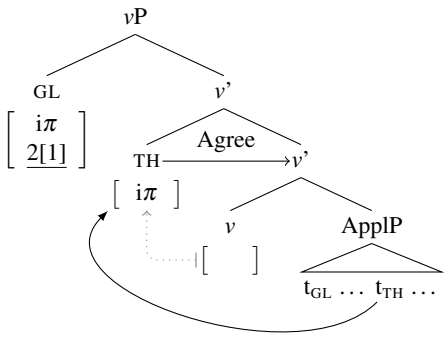


The alternative derivation involves the *immediate deletion* of [uπ] features on *v* after they value the [iπ] of the GL in Spec*v*P, leaving no valued person feature behind for the TH, which must get a default 3P value:

(63) a.



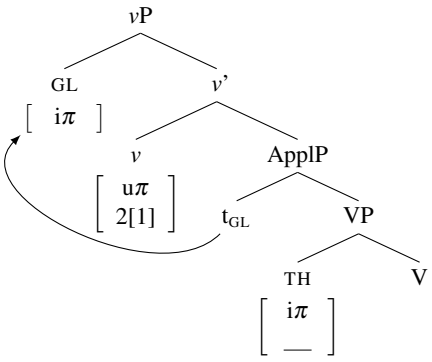
b.



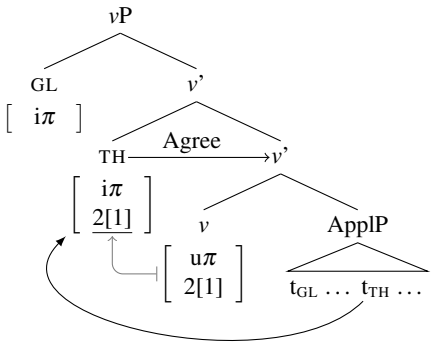
⇒ This is the only derivation that yields a 'mixed' 1/2P and 3P pronoun combination.

The GL pronoun can not move to a *v* with a [2] or [2[1]] specification and not be valued:

(64) a. ✗



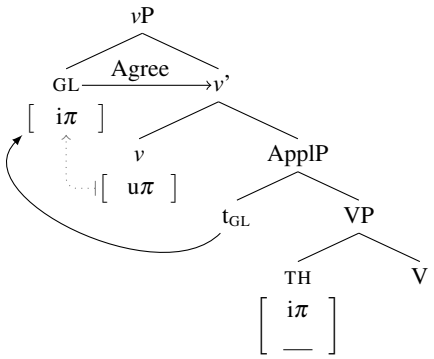
b. ✗



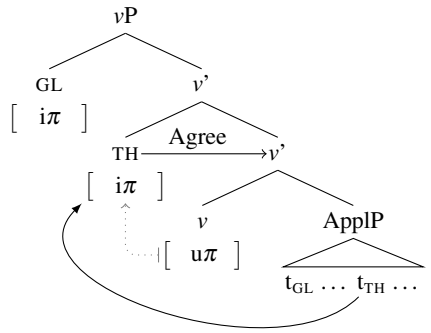
⇒ Agree is an obligatory operation—it must take place when the conditions for it are met.

The only way for the GL pronoun to be valued 3P is if the [uπ] on *v* is "bare" (not specified with [2] or [2[1]] person features), but then the TH can only be valued 3P as well:

(65) a.

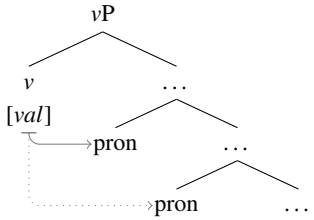


b.

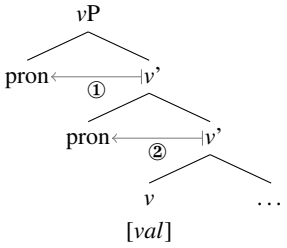


Summary: (a) STRONG restrictions always arise due to *Agree Closest*, and (b) WEAK restrictions arise due to the timing of multiple valuations, where one can bleed the other.

(66) STRONG restriction:



(67) WEAK restriction:

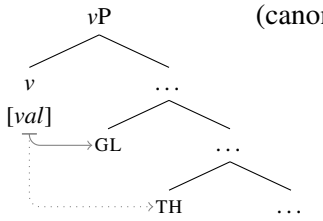


⇒ The same difference drives the variation with EA-IA restrictions.

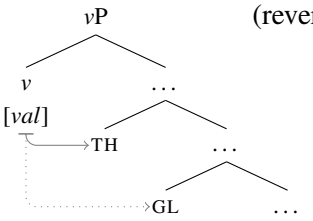
3.3 Deriving reverse person restrictions

Reversing the asymmetric c-command relation between the two minimal pronouns below *v* automatically produces *reverse* versions of both person restriction patterns in the current system:

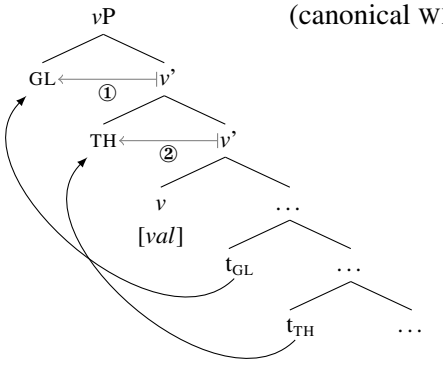
(68) a. (canonical STRONG)



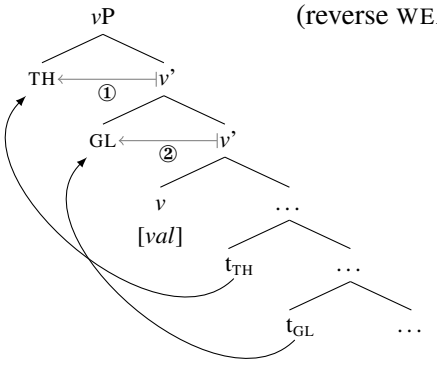
b. (reverse STRONG)



(69) a. (canonical WEAK)



b. (reverse WEAK)



4 Explaining the typological gaps

(25) *Strength Generalization.* If a language has person restrictions in both the EA-IA and IA-IA domain, the IA-IA person restriction cannot be weaker than the EA-IA person restriction.

(30) *Direction Generalization.* If a language has a *reverse* person restriction in the EA-IA or IA-IA domain, it must also have a *canonical* counterpart of the same person restriction.

The proposed analysis of person restrictions allows us to derive the typological gaps from independent assumptions concerning argument structure, phases, and movement.

4.1 Deducing the Strength Generalization

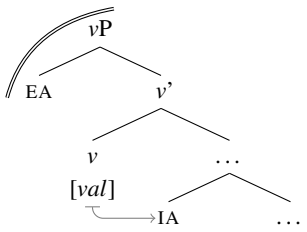
To deduce the generalization, we must first look at EA-IA restrictions; these can arise in *pronominal argument* languages (Jelinek 1984, 1994), where the subject/object markers on the verb are actually the real arguments.

⇒ EA-IA restrictions arise if the EA deficient pronoun is also a minimal pronoun.

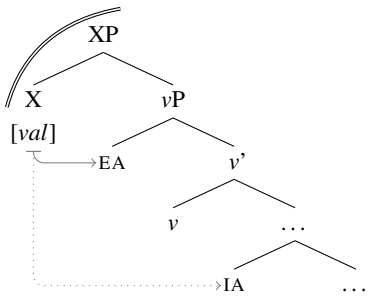
4.1.1 Deriving STRONG EA-IA restrictions

With *v*P as the relevant phase, the position of EA and IA minimal pronouns can not yield a STRONG restriction (no *Agree Closest* effect), (70); for that the phase head must be above both EA and IA, (71).

(70) ✗



(71)



It has been argued independently that phases are contextual and can extend beyond their default size with the right conditions (Gallego 2005; den Dikken 2007; Wurmbrand 2013, 2017; Bošković 2013, 2014; i.a.).

- STRONG EA-IA restrictions always occur when the verbal phase extends beyond *v*P;
- There is independent evidence for this when we look at differences in the expression of voice-related morphology in closely related languages with different EA-IA person restriction patterns:

(72) Southern Tiwa [*Kiowa-Tanoan*]: **WEAK EA-IA restriction**

a. **i-** mũ-ban. 1.EA ≫ 2.IA
1>2- see-PAST
'**I** saw **you**'

b. **seuan* **???-** mũ-ban. ✗ 3.EA ≫ 1/2.IA
man.A 3>1/2- see-PAST
'The man, **he** saw **me/you**.'

(73) seuanide-ba { **te-** / **a-** } mũ-che-ban. **passive:** 1/2.IA.SU + PP.3.EA
man.A-INSTR { 1.SU- / 2.SU- } see-PASS-PAST
'**I** was seen by the man.' (Allen and Frantz 1978:11–2)

(74) Arizona Tewa [*Kiowa-Tanoan*]: **STRONG EA-IA restriction**

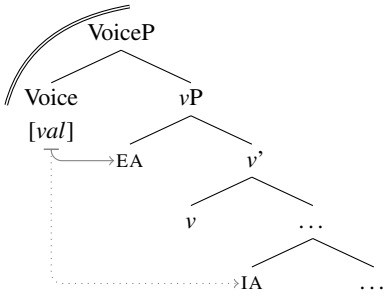
a. **na: ų* **???-** mun. ✗1.EA ≫ 2.IA
I you 1>2- see
'**I** saw **you**'

b. **sen* **???-** mun. ✗3.EA ≫ 1/2.IA
man 3>1/2- see
'The man, **he** saw **me/you**.' (Kroskrity 1977:86,169,171)

(75) *na:* { sen-en-di / ų-di } **dí-** kʷekʰʷɛ́di. **passive:** 1.IA.SU + PP.3/2.EA
I { man-PL-OBL / you-OBL } PASS(3/2>1)- shoot
'**I** was shot by the man/by you.' (Kroskrity 1985:311)

I suggest that the deficient passive morphology of Arizona Tewa reflects a deficient *v* incapable of projecting a phase; instead a *Voice* head above *v* takes up the role of the phase head and can thus host valued person features:

(76)



Note: The alternative phase configuration is a deviation from the norm, so this also captures the comparative rarity of STRONG EA-IA restrictions (13 languages vs. 31 languages with WEAK EA-IA).

The phase extension required for STRONG EA-IA restrictions can have different "side effects":

(77) Given two minimally different languages/constructions α and β, where α shows a STRONG EA-IA restriction and β does not, we can find cases where:
a. that α has more impoverished voice marking than β; or
b. that α has a more impoverished argument indexing than β; or
c. that α has accusative alignment and β ergative alignment; or
d. that α allows more extraction possibilities for arguments than β.

Arizona Tewa vs. Southern Tiwa instantiate (77a); the other cases are exemplified by e.g.:

(77b) Senaya [*Neo-Aramaic*] (Kalin 2014):

α: Perfective (STRONG EA-IA + object marking unrealized)

β: Imperfective (no restriction + full subject & object marking)

(77c) Tangut [*Qiangic*] (Kepping 1979):

α: Baseline agreement pattern (STRONG EA-IA)

β: Ergative agreement pattern (no restriction)

(77d) Kaqchikel [*Quichean-Mamean*] (Preminger 2014; Erlewine 2016):

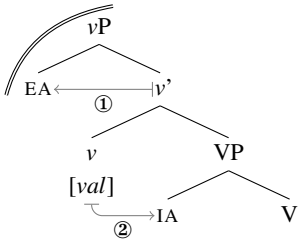
α: Agent-focus construction (STRONG EA-IA + agent extraction possible)

β: Ergative baseline (no restriction + agent extraction impossible)

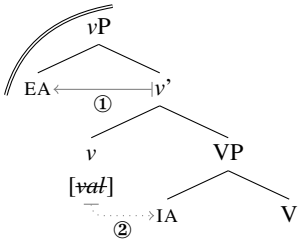
4.1.2 Deriving WEAK EA-IA restrictions

The default *v*P phase configuration is what yields WEAK EA-IA restrictions, where just as with WEAK IA-IA restrictions, the key factor is the timing of multiple person valuations—one potentially bleeding the other:

(78)



(79)



⇒ The difference is that the restriction is not the result of valuation driven movement to Spec*v*P;

⇒ The EA minimal pronoun is base generated in Spec*v*P where it can be valued directly.

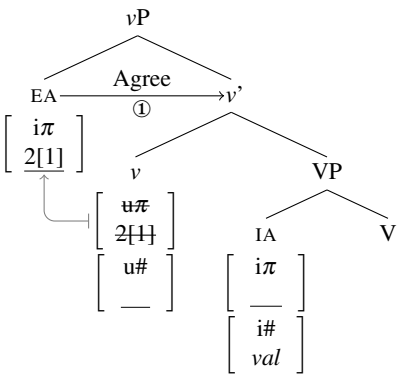
The timing of the two person valuations follows from the set order of grammatical operations:

(80) *Theta-Probe Condition*
If a probe is also a theta-role assigner, it can not probe until it has assigned the theta-role.

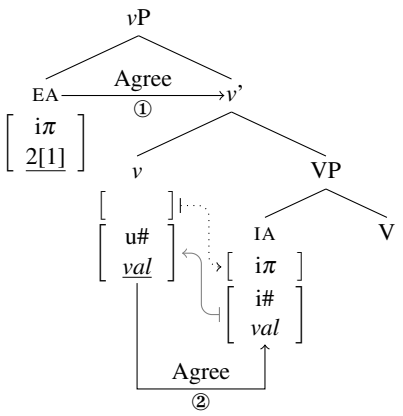
(81) *Order of grammatical operations*
Theta-operation [θ] $\succ$ A-operation [φ, K] $\succ$ $\bar{\text{A}}$-operation [Q, FOC, TOP, ...]
(cf. Bošković 1994; Abels 2007)

The EA minimal pronoun can probe and Agree immediately upon being merged, whereas the *v* can probe and Agree only after the EA has merged, and the first valuation can bleed the second:

(82) a.



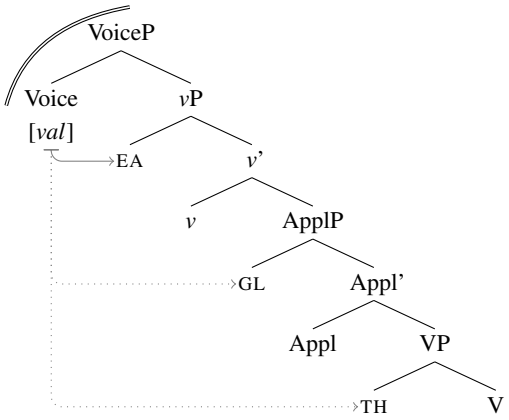
b.



4.1.3 Deriving STRONG-STRONG combinations

In STRONG EA-IA phase configurations, the EA blocks the person valuation of any minimal pronouns present below it in the structure; if present both GL and TH minimal pronouns are inaccessible for person valuation:

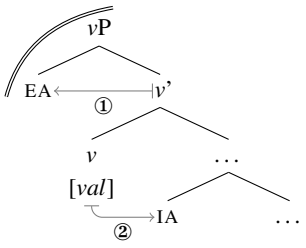
(83)



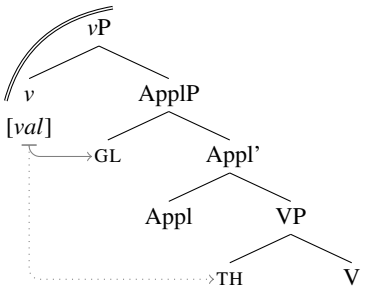
4.1.4 Deriving WEAK-STRONG combinations

A *v*P phase configuration can yield both WEAK EA-IA restrictions and STRONG IA-IA restrictions:

(84)

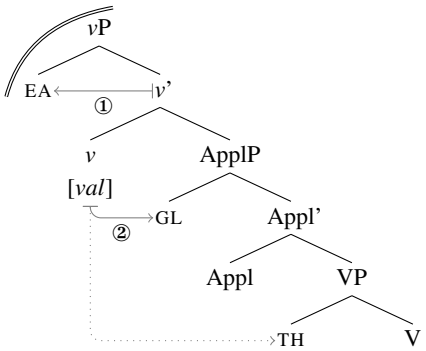


(85)



Deriving a WEAK-STRONG combination thus requires only to combine the two:

(86)

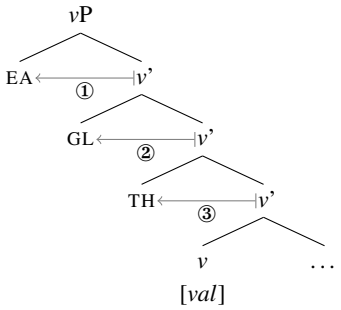


Note: The straightforward way in which WEAK-STRONG falls out in the current system given a default *v*P phase captures the fact that WEAK-STRONG is by far the most common attested combination.

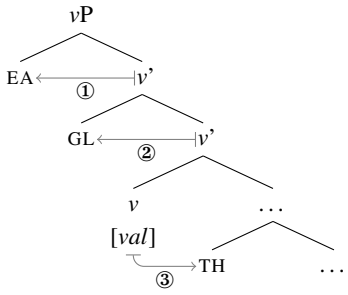
4.1.5 Deriving WEAK-WEAK combinations

These are also predicted to exist, although only Alutor [*Chukotkan*] (Mel'čuk 1988; Kibrik 2002) fits the pattern. This restriction combination arises with three minimal pronouns valued in a "bleeding" configuration:

(87)



(88)



- It is unclear why these are so rare. One possibility is that the richer structure for IA minimal pronouns that yields WEAK IA-IA restrictions is not generally available in pronominal argument languages.

4.1.6 The impossibility of STRONG-WEAK combinations

The variation in restriction patterns is the result of two factors:

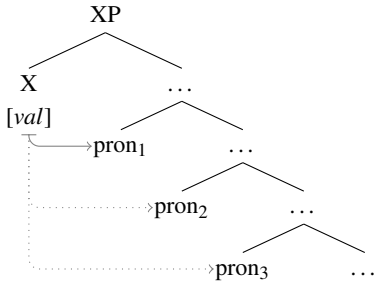
(i) the movement of pronouns driven by their richer internal structure;

(ii) the variable position of the phase head in relation to the pronouns.

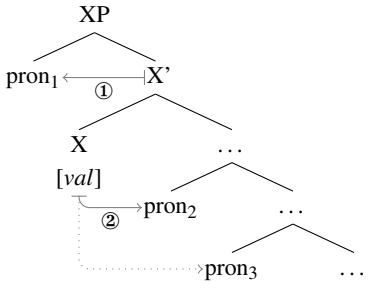
We need to show that no matter how we vary these two parameters, the current system can never derive the unattested STRONG-WEAK restriction combination.

All the valuation configurations possible in the current system for 3 minimal pronouns in phase head X:

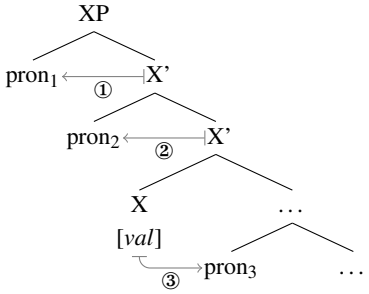
(89) STRONG-STRONG:



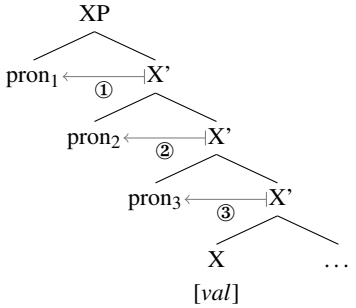
(90) WEAK-STRONG:



(91) WEAK-WEAK:



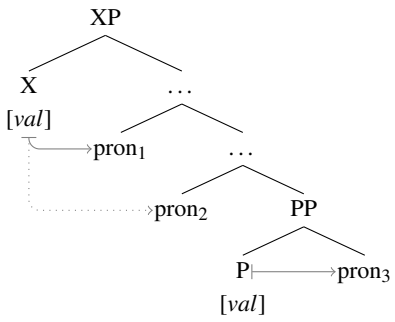
(92) WEAK-WEAK:



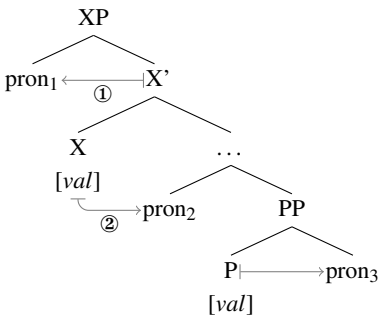
⇒ These also correspond to all the EA-IA/IA-IA restriction combinations attested in the survey.

The only way to tamper with the valuation options is to introduce another phase head (i.e. another source of [uπ:val]), but that would completely obviate the person restriction, not make it weaker; e.g.:

(93) STRONG-∅:



(94) WEAK-∅:



Given any phase, the pronoun pair closest to its edge will be person restricted with: **(a)** equal strength, or **(b)** to a lesser degree, than any pronoun pair further from the phase edge—in other words:

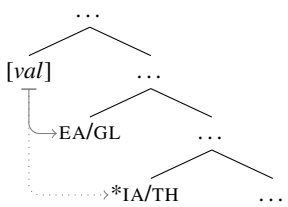
(25) *Strength Generalization.* If a language has person restrictions in both the EA-IA and IA-IA domain, the IA-IA person restriction cannot be weaker than the EA-IA person restriction.

4.2 Deducing the Direction Generalization

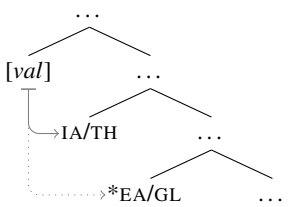
4.2.1 The movement analysis of reverse person restrictions

If the structures that yield *reverse* person restrictions arise through base generation, we can not exclude them from existing on their own—yielding the unattested patterns with only reverse restrictions.

(95) Canonical:

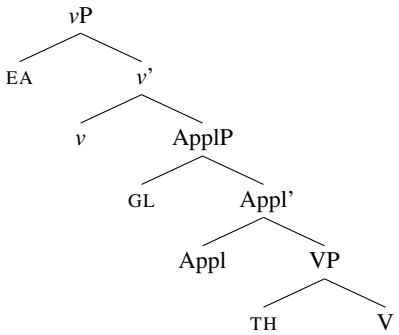


(96) Reverse:



But: Assuming there is a universal hierarchy of base argument positions (or *UTAH*; Baker 1988, 1997), the minimal pronouns remain in situ can only yield canonical person restrictions:

(97)



⇒ The dependence of reverse person restrictions on corresponding canonical restrictions can then be attributed to the structures yielding the reverse restrictions always arising via movement.

The type of movement we are looking for must meet the following requirements:

(i) It must be able to take place before person valuation (i.e. it must be independent of Agree);

(ii) It must be able to reorder arguments (i.e. reverse the asymmetric c-command relation between them);

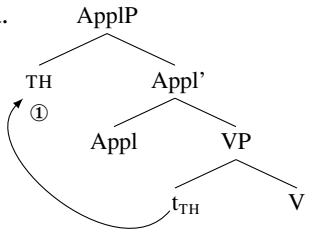
(iii) It must be optional.

4.2.2 Reverse person restrictions require scrambling

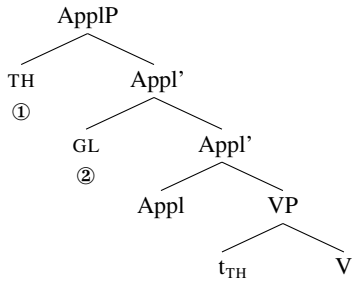
There is a movement type that perfectly fits those criteria: *scrambling* (Saito and Hoji 1983; Saito 1985), in particular: *short-distance* or *middle-field scrambling* (Mahajan 1990; Saito 1992; Webelhuth 1992; i.a.).

- Scrambling is optional because it is not feature-driven (Saito and Fukui 1998);
- Richards (2008): Scrambled arguments can land in a syntactic position before any base generated arguments are merged in the same position, resulting in "reordering without reordering":

(98) a.

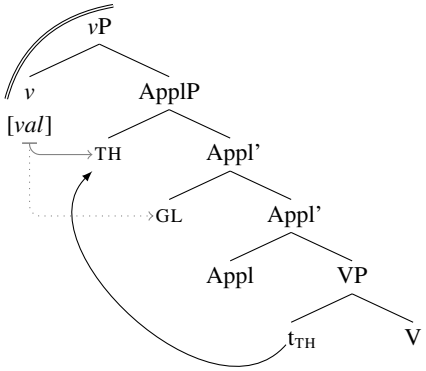


b.

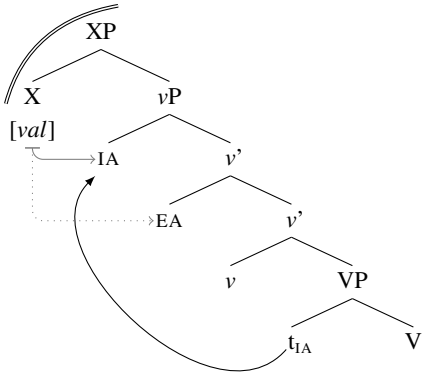


Because of its independence from Agree and ability to target low argument positions, scrambling is exactly the type of movement that can derive reverse person restrictions:

(99)



(100)



Because of UTAH and because the movement that feeds reverse person restrictions is, by definition, never obligatory, we never get languages with only reverse person restrictions, or:

(30) *Direction Generalization.* If a language has a reverse person restriction in the EA-IA or IA-IA domain, it must also have a canonical counterpart of the same person restriction.

Conclusion

[1] The crosslinguistic distribution of person restrictions across reveals the existence of two previously unnoticed generalizations: the *Strength Generalization* and the *Direction Generalization*;

[2] The proposed analysis of person restrictions derives the two generalizations from independently proposed assumptions on phases, agreement, argument structure, and movement;

[3] Why do person restrictions exist?

(a) Valued person features are confined to phase edges;

(b) Tension between minimizing the means employed in derivations and maximizing their use.

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Appendix: Fine-grained distinctions in WEAK person restrictions

Table 5: Attested person restriction patterns (shaded = ungrammatical)

STRONG	**1** ≫ 3	**2** ≫ 3	**3** ≫ 3	**1** ≫ 2	**2** ≫ 1	**3** ≫ 2	**3** ≫ 1
WEAK (plain)	**1** ≫ 3	**2** ≫ 3	**3** ≫ 3	**1** ≫ 2	**2** ≫ 1	**3** ≫ 2	**3** ≫ 1
WEAK *≫ 1	**1** ≫ 3	**2** ≫ 3	**3** ≫ 3	**1** ≫ 2	**2** ≫ 1	**3** ≫ 2	**3** ≫ 1
WEAK *≫ 2	**1** ≫ 3	**2** ≫ 3	**3** ≫ 3	**1** ≫ 2	**2** ≫ 1	**3** ≫ 2	**3** ≫ 1
ME-FIRST	**1** ≫ 3	**2** ≫ 3	**3** ≫ 3	**1** ≫ 2	**2** ≫ 1	**3** ≫ 2	**3** ≫ 1
YOU-FIRST	**1** ≫ 3	**2** ≫ 3	**3** ≫ 3	**1** ≫ 2	**2** ≫ 1	**3** ≫ 2	**3** ≫ 1
*2 ≫ 1	**1** ≫ 3	**2** ≫ 3	**3** ≫ 3	**1** ≫ 2	**2** ≫ 1	**3** ≫ 2	**3** ≫ 1
*3 ≫ 2	**1** ≫ 3	**2** ≫ 3	**3** ≫ 3	**1** ≫ 2	**2** ≫ 1	**3** ≫ 2	**3** ≫ 1

All the additional patterns can be accommodated in the current system:

- By employing the mechanism of *feature inheritance* (Chomsky 2004, 2005, 2008; Ouali 2006);
- Transfer of speaker or addressee features from the phase head to the head of its complement;
- Parameterization of transfer (Ouali 2006);

Due to the local nature of feature inheritance, the deduction of the two generalizations is not affected.

Table 6: Person restrictions derived through feature inheritance

	*≫ 1	*≫ 2	ME-FIRST	YOU-FIRST	*2 ≫ 1	*1 ≫ 2	*3 ≫ 1	*3 ≫ 2	∅	∅
π-system	spkr. 2[1]	addr. 1[2]	spkr. 2[1]	addr. 1[2]	spkr. 2[1]	addr. 1[2]	spkr. 2[1]	addr. 1[2]	spkr. 2[1]	addr. 1[2]
partial tr.										
copy	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗
no copy	✗	✗	✓	✓	✗	✗	✓	✓	✗	✗
full tr.										
copy	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓
no copy	✗	✗	✗	✗	✓	✓	✗	✗	✓	✓