



Person in Archi

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OUTLINE

- features and values – different assumptions
- person as gender in Archi? (no)
- what is special about the Archi agreement paradigm?
- conclusion



Chemistry envy: What we would like:

- to give a list of the morphosyntactic features
- to list their possible values in two ways:
 - the available values
 - the possible systems (including largest and smallest) drawn from these values



Establishing morphosyntactic features and their values: the Set-theoretical School

- Kolmogorov, Revzin, Zaliznjak, Marcus
- sympathetic account by van Helden (1993), reviewed by Meyer (1994)
- the legacy



Interactions of features

- Greenberg style (see Baerman, Brown & Corbett 2005 for what is found)
- “worse” than that: can one morphosyntactic feature or value be a value of another?

Greenberg style interactions

	SG	PL
MASCULINE		
FEMININE		
NEUTER		

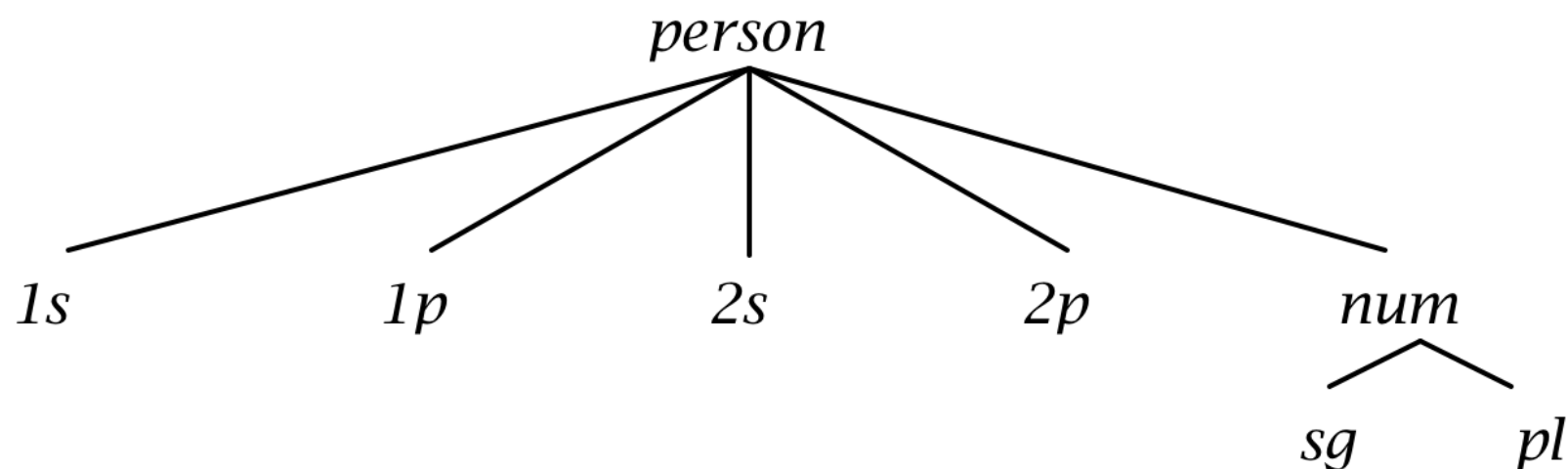
OK

	SG	PL
MASCULINE		
FEMININE		
NEUTER		

not OK



Problematic interactions (if accepted)



Person in French (Wechsler & Zlatić 2003: 103)



Main morphosyntactic features and their values

	gender values	number values	person values	case values
GENDER	M, F, N ...	X	X	X
NUMBER	X	SG, PL, DU ...	X	X
PERSON	X	X	1, 2, 3	X
CASE	X	X	X	NOM, ACC, GEN ...

exclusiveness: a value belongs to just one feature

Corbett (2012: 223)



Analyses not respecting “exclusiveness”

	gender values	number values	person values	case values
GENDER	M, F, N ...	Bayso (Hayward)	Archi (Kibrik)	X
NUMBER	X	SG, PL, DU ...	X	X
PERSON	X	French (Wechsler)	1, 2, 3	X
CASE	X	X	X	NOM, ACC, GEN ...



2. PERSON AS GENDER IN ARCHI? (Nakh-Daghestanian)



Xere

Photograph: Marina Chumakina

- no unique phonological material for person
- Kibrik treats some lexical items as irregular for *gender*



Verbal affixes marking agreement in Archi

GENDER	NUMBER	
	singular	plural
I (male human)	w-/<w>	b-/
II (female human)	d-/<r>	
III (some animates, all insects, some inanimates)	b-/	∅
IV (some animates, some inanimates, abstracts)	∅	



The discussion

- Kibrik (1972), explicitly in the Set-theoretical tradition, has agreement classes without separate person feature in Archi. Clearer in the Archi grammar (Kibrik et al. 1977a: 63-64).
- Corbett (1991: 127-128, 271-273) makes basic case why a person feature is needed. Detail in Chumakina, Kibort & Corbett (2007). Treated in comparison with Bayso and French in (Corbett 2012: 239-251).



Agreement with no sign of person

- (1) ʎ:onnol **d-as:ar-ši** **d-i**
 woman (II)[ABS.SG] II.SG-tremble.IPF-CVB II.SG-be.PRS
 ‘The woman is trembling.’
- (2) **zon** **d-irx:^win**
 1SG.ABS II.SG-work
 ‘I work (woman speaking)’
- (3) **un** **hanžugur** **d-aq^ʃa ?**
 2SG.ABS what.way II.SG-come.PF
 How did you get here? (to a woman)



Plural pronouns

Archi (Aleksandr Kibrik 1972 and personal communication)

(4) teb ba-q^ʁa
 they I/II.PL-came
 ‘they (human) came’

(5) teb q^ʁa
 they [III/IV.PL]came
 ‘they (non-human) came’

(6) nen q^ʁa
 we.EXCL [?]came
 ‘we came’

(7) ž^wen q^ʁa
 you.PL [?]came
 ‘you came’



Agreement with personal pronouns in Archi

<i>zon</i> “I”	→ gender/number agreement
<i>un</i> “you (sg)”	→ gender/number agreement
<i>teb</i> “they”	→ gender/number agreement
<i>nen</i> “we” (human)	→ bare stem
<i>ž^wen</i> “you (pl)” (human)	→ bare stem



Verbal affixes marking agreement in Archi (reminder)

GENDER (and assignments)	NUMBER	
	SINGULAR	PLURAL
I (male human)	w-/<w>	b-/
II (female human)	d-/<r>	
III (some animates, all insects, some inanimates)	b-/	∅
IV (some animates, some inanimates, abstracts)	∅	



Adjective indicates that the form is plural

- (8) nen mutt-ib i
 1PL.EXCL beautiful-PL [?]be.PRS
 ‘we are beautiful’

Bulbul Musaeva, elicited by Marina Chumakina



Archi PERSON within GENDER

(based on Kibrik et al. 1977a: 55, 63-64)

Kibrik gender	agreement markers		example	gloss
	SG	PL		
I	w	b	bošor	man
II	d- /<r>	b	ʃ:onnol	woman
III	b	∅	χ ^ɕ on	cow
IV	∅	∅	motol	goat kid
V	w	∅	zon, un, nen, ž ^w en	I (male), you (male) we, you (PLURAL)
VI	d- /<r>	∅	zon, un, nen, ž ^w en	I (female), you (female) we, you (PLURAL)
VII	b	b	χalq' žamaat	people, nation villagers
VIII	∅	b	lo adam, ijsan/insan k ^{wi} šaw bok ^ɬ '	baby person somebody people



Problem 1: 1st and 2nd person pronouns used of non-humans (SG)

- (9) un daši xat:i-ši b-i?
2SG.ABS where <III.SG>go.IPFV-CVB III.SG-be
'Where are you going?' (to a cow, so gender III) MC fieldwork

- (10) zon o^rrču-li i un
1SG.ABS get.cold.PFV-CVB [IV.SG]be 2SG.ABS
‡:wak k^wer-gi
near become.I.SG.IPFV-PROH
'I'm cold, don't come near.' (river speaking, so gender IV) MC fieldwork



Problem 1: 1st and 2nd person pronouns used of non-humans (PL)

- | | | | | |
|------|-------------------------------|------------------|-----------------------------|---------------|
| (11) | nen | buc:'i | as:ar-ši | i |
| | 1PL.EXCL.ABS | cow(III)[PL.ABS] | [III/IV.PL]tremble.IPFV-CVB | [III/IV.PL]be |
| | 'We cows are trembling.' | | | MC fieldwork |
| (12) | nen | motol-um | as:ar-ši | i |
| | 1PL.EXCL.ABS | kid(IV)-PL.ABS | [III/IV.PL]tremble.IPFV-CVB | [III/IV.PL]be |
| | 'We goat kids are trembling.' | | | MC fieldwork |

The agreements could equally be [?]



The effect

- these instances have the same agreements as “ordinary” gender values III and IV
- but it means that the pronouns *zon* ‘I’ and *un* ‘you’ now have four possible gender values



Archi GENDER within PERSON (with pronouns used of non-humans)

Kibrik gender	agreement markers		example	gloss
	SG	PL		
I	w	b	bošor	man
II	d- /<r>	b	ʔ:onnol	woman
III	b	∅	χ ^ɸ on, zon, un, nen, ž^wen	cow, I, you, we (of III)
IV	∅	∅	motol, zon, un, nen, ž^wen	goat kid, I, you, we (of IV)
V	w	∅	zon, un, nen, ž ^w en	I (male), you (male) we, you (PLURAL)
VI	d- /<r>	∅	zon, un, nen, ž ^w en	I (female), you (female) we, you (PLURAL)
VII	b	b	χalq' žamaat	people, nation villagers
VIII	∅	b	lo adam, ijsan/insan k ^{wi} šaw bok ^ʔ	baby person somebody people



Problem 2: Resolution in Archi

- (13) dija-wu buwa-wu ɬ:wak b-i
father(I)[ABS.SG]-and mother(II)[ABS.SG]-and near I/II.PL-be.PRS
‘Father and mother are near.’
- (14) dija-wu dogi-wu ɬ:wak b-i
father(I)[ABS.SG]-and donkey(III)[ABS.SG]-and near I/II.PL-be.PRS
‘Father and the donkey are near.’
- (15) dogi-wu moto:l-u ɬ:wak i
donkey(III)[ABS.SG]-and kid(IV)[ABS.SG]-and near [III/IV.PL]be.PRS
‘The donkey and the goat kid are near.’

(Kibrik 1977b: 186-187, Corbett 1991: 271-273)



Resolution rules in Archi (first attempt: syntactic)

- If there is at least one conjunct of gender I or II, gender I/II agreement (*b-*) will be used;
- otherwise, gender III/IV agreement (bare stem) will be used.
- but

(16) χ alq'-u dogi-wu tɔːwak bi
people(III)[SG.ABS]-and donkey(III)[SG.ABS]-and near I/II.PL-be
'The people and the donkey are near.'

Kibrik (1977b: 187)



Resolution rules (second attempt: semantic, still with no person feature)

- If there is at least one conjunct denoting a rational or rationals, gender I/II agreement (*b-*) will be used;
- otherwise, gender III/IV agreement (bare stem) will be used.
- but



Difficult example of resolution in Archi

- (17) zo:n-u buwa-wu q^ʁa
1.SG.ABS-and mother(II)[SG.ABS]-and [?]come.PFV
‘I and mother came.’

So, rule 3: However, when one of the conjuncts is the pronoun *zon*, *un*, *nen*, or *ž^wen* (‘I, you (sg), we, you (pl)’) → bare stem (i.e. equivalent to gender III/IV agreement).



Kibrik's rule for conjoined NPs (1977b: 186)

- the predicate is in the PLURAL
- it agrees in **GENDER** with the conjunct of lower rank

rank 1: genders V and VI;

rank 2: genders I, II, VII and VIII;

rank 3: genders III and IV.



Why this system is odd typologically

- It is 'two level', with gender values and ranks of gender values (and, as K pointed out later, these ranks do not correspond to any external hierarchy)
- rank 1 (genders v and vi) is an indirect way of referring to personal pronouns (when of genders I and II)
- rank 1 is lexical (for particular items), while 2 and 3 reflect a human / non-human distinction



How things get worse for Kibrik's system

- Recall that the personal pronouns may be used for non-humans



Conjoining involving personal pronouns for non-humans

- (18) u:n-u ʔ:onno:l-u as:ar-ši i
2SG-and woman(II)[SG.ABS]-and [?]tremble.IPFV-CVB [?]be.PRS

‘You (addressing a cow) and the woman are trembling.’

- (19) u:n-u ʔ:onno:l-u ʔ:wak i
2SG-and woman(II)[SG.ABS]-and near [?]be.PRS

‘You (addressing a river) and the woman are near.’

Bulbul Musaeva, elicited by Marina Chumakina, July 2012.



Modifying Kibrik's rule for conjoined NPs

- the predicate is in the PLURAL
- it agrees in **GENDER** with the conjunct of lower rank
 - rank 1: genders V and VI;
PLUS genders X and Y (= genders III and IV when pronouns)
 - rank 2: genders I, II, VII and VIII;
 - rank 3: genders III and IV.
- i.e. this needs another two new values, just for conjoined NPs, otherwise genders III and IV are both in Rank 1 and in Rank 3



Two options for the description of Archi

Earlier account (Kibrik et al. 1977a: 63-64, Kibrik 1977b: 186):

- No person feature.
- Personal pronouns *zon*, *un*, *nen*, and *ž^wen* form a special *gender*.
- For resolution rules (based only on gender and number), genders must be *ranked*, with the gender containing the pronouns ranked higher than other genders. And two special gender values just for resolution purposes.

Our proposal:

- Accept a person feature.
- Usual gender resolution rules.
- Fairly standard person resolution rules (but only: persons 1 and 2 > person 3).



Typologically usual resolution rules

Person resolution

- If there is a conjunct of FIRST or SECOND person, FIRST/SECOND person agreement will be used;
- otherwise THIRD person agreement will be used.

Gender resolution

- If there is a conjunct referring to a human, gender I/II agreement will be used;
- otherwise gender III/IV agreement will be used.



Proposed person-number paradigm in Archi

PERSON	NUMBER	
	SINGULAR	PLURAL
1	gender agreement	bare stem
2	gender agreement	bare stem
3	gender agreement	gender agreement



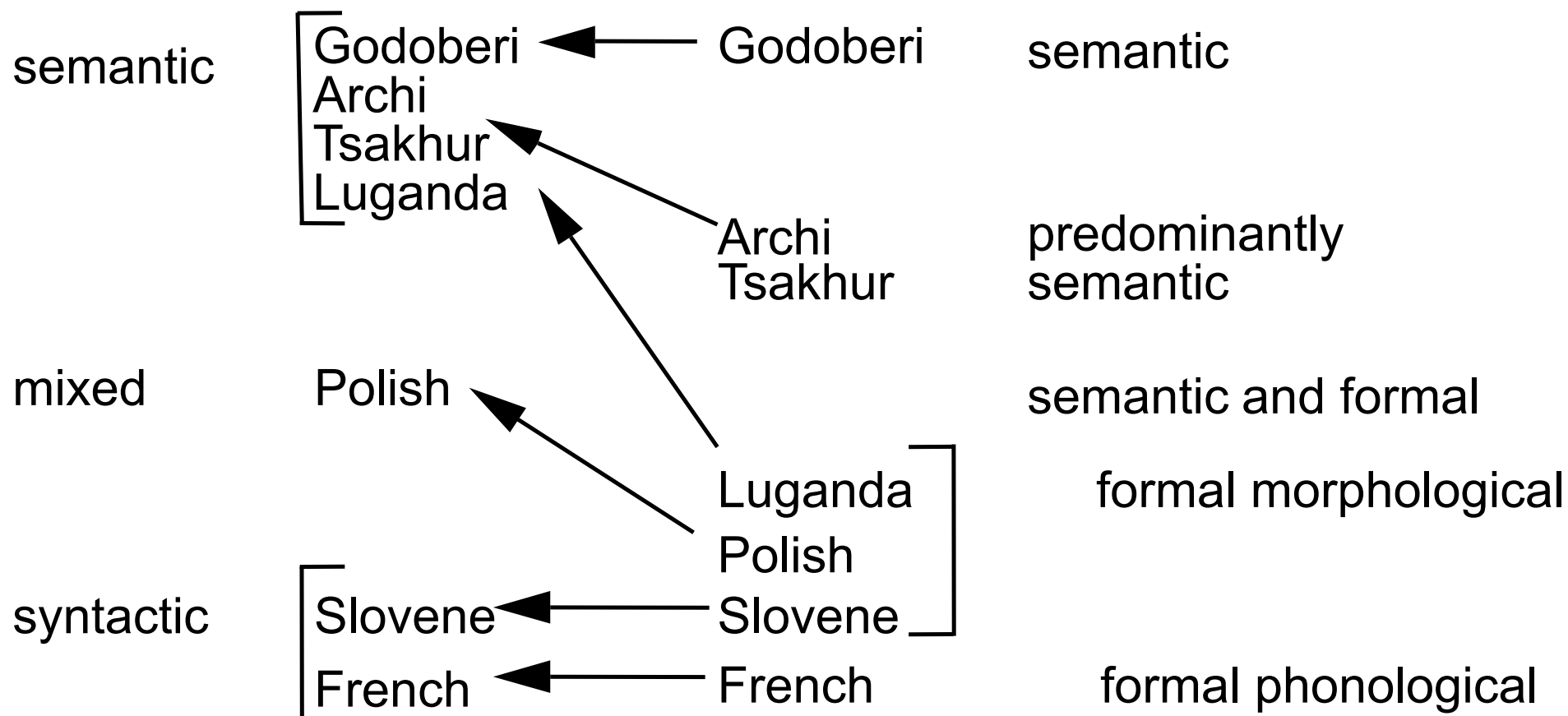
Excursus on resolution rules



Relation of resolution to assignment (old version, Corbett 2003)

Resolution

Assignment





verdict on the old (2003) version

- nice to have one typology dependent on another
- BUT the relation isn't fully specific
- AND gender resolution is still out on its own
(while person and number are lined up together)



Hybrids are “semantically shifted” in syntactic/formal resolution systems

French (Wechsler & Zlatic 2003: 177)

- (20) La sentinelle et sa femme ont
DEF.F.SG sentry and 3SG.POSS.F.SG wife(F) have.3PL
- été **pris** / *pris-es
 be.PST.PTCP take.PST.PTCP.PASS[M] / take.PST.PTCP.PASS-F.PL
- en otage.
 in hostage

‘The sentry and his wife have been taken hostage.’

Note: Wechsler & Zlatic cite Farkas & Zec (1995), but Megaard (1976) got there earlier.



Semantic resolution (even for languages like Slovene and French)

- (a) If all conjuncts refer to female humans, agreement is feminine
- (b) If all conjuncts refer to humans, whether all male or of mixed sexes, agreement is masculine.



Generalizing:

semantic resolution must refer to *whatever the semantic gender assignment rules of the language refer to.*

(Corbett 2006: 262)



confirming evidence:

Serbian/Croatian/Bosnian (Popović 1991: 47)

(21) Zar ste se Vi i Mira **posvađa-l-e?**
Really AUX.2PL REFL 2PL and Mira(F) quarrel-PST-F.PL

‘Have you (one woman) and Mira really quarrelled?’

Notes: 1. Polite *vi* ‘you’ takes masculine plural agreement of the predicate verb.

2. All FEM > FEM; otherwise MASC (as Slovene).



Relation of gender resolution to assignment

	assignment	← resolution
semantic criteria	1. essential	2. essential (if there is resolution)
↑ formal criteria	3. possible	4. possible

(Corbett 2006)



Why this seems right

- Gender resolution now basically like person and number resolution. That's right because:
 - all or none apply (no 'picking and mixing')
 - but they don't cross refer (no rules for 1SG or 2FEM).
- The 'outcome' of all of the rules is semantically motivated.
- What remains different about gender resolution depends on the semantics of gender in the particular language.





3. WHAT IS SPECIAL ABOUT THE ARCHI AGREEMENT PARADIGM?

1. Looking across the lexicon, only some items agree.

32% of verbs in the Archi dictionary (399/1248) agree (Chumakina & Corbett 2008).

2. Within the items that agree, the pattern of cells which agree can be remarkable:



	SG		PL		
	1 person	2 person	1 person		2 person
			EXCL	INCL	
ABS	zon		nen	nen-t'-u	ž ^w en
ERG	zari	un	nen	nen-a-w nen-a-r-u nen-a-b-u nen-t'-u etc	ž ^w en
GEN	w-is \ b-is d-is / b-is \ is is /	wit	ulu d-olo b-olo olo etc	la-w-u la-r-u la-b-u la-t'-u etc	wiš
DAT	w-ez \ b-ez d-ez / b-ez \ ez ez /	wa-s	w-el d-el b-el el etc	w-ela-w d-ela-r-u b-ela-b-u el-t'-u etc	wež
COMIT	za-ł:u	wa-ł:u	la-ł:u		ž ^w a-ł:u
SIMILAT	za-q ^ɬ di	wa-q ^ɬ di	la-q ^ɬ di		ž ^w a-q ^ɬ di
COMP	za-χur	wa-χur	la-χur		ž ^w a-χur
SUBST	za-kl'ena	wa-kl'ena	la-kl'ena		ž ^w a-kl'ena
SUPERESS	za-t	wa-t	la-t		ž ^w a-t
SUPERELAT	za-t:i-š	wa-t:i-š	la-t:i-š		ž ^w a-t:i-š
SUPERLAT	za-t:i-k	wa-t:i-k	la-t:i-k		ž ^w a-t:i-k
SUPERTERM	za-t:i-kəna	wa-t:i-kəna	la-t:i-kəna		ž ^w a-t:i-kəna
CONTELAT	za-ra-š	wa-ra-š	la-ra-š		ž ^w a-ra-š
CONTLAT	za-ra-k	wa-ra-k	la-ra-k		ž ^w a-ra-k
CONTALL	za-r-ši	wa-ra-ši	la-ra-ši		ž ^w a-ra-ši
CONTTERM	za-ra-kəna	wa-ra-kəna	la-ra-kəna		ž ^w a-ra-kəna

Personal pronouns of Archi

Compare Chumakina & Corbett (2008)

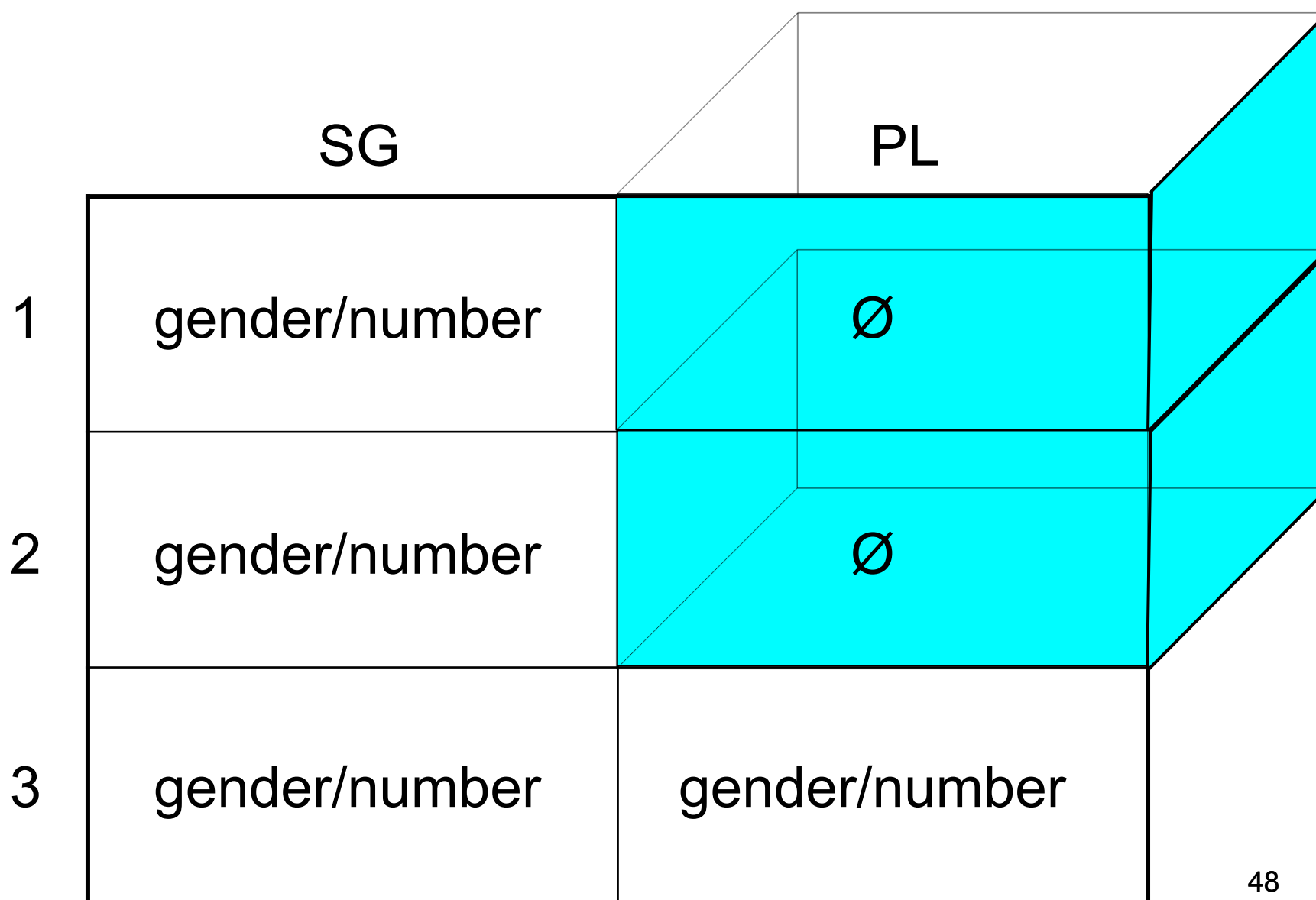


What is special about the Archi agreement paradigm (continued)?

3. Given that agreement is possible, almost all items show the same pattern of gender/number versus person/number.
4. The pattern of person-number versus number-gender is odd:

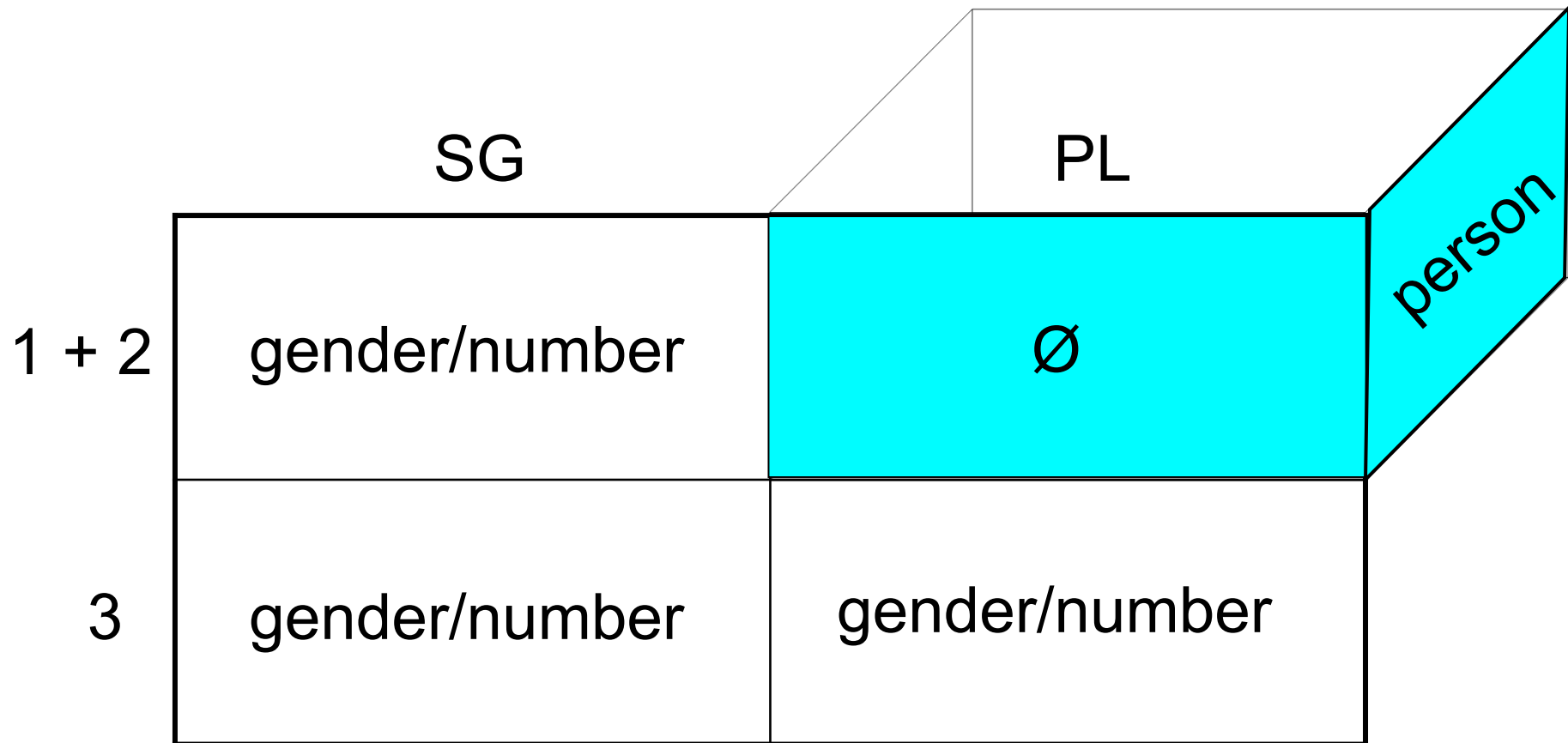


Dimensions of the Archi paradigm





Simplifying for the actual person values




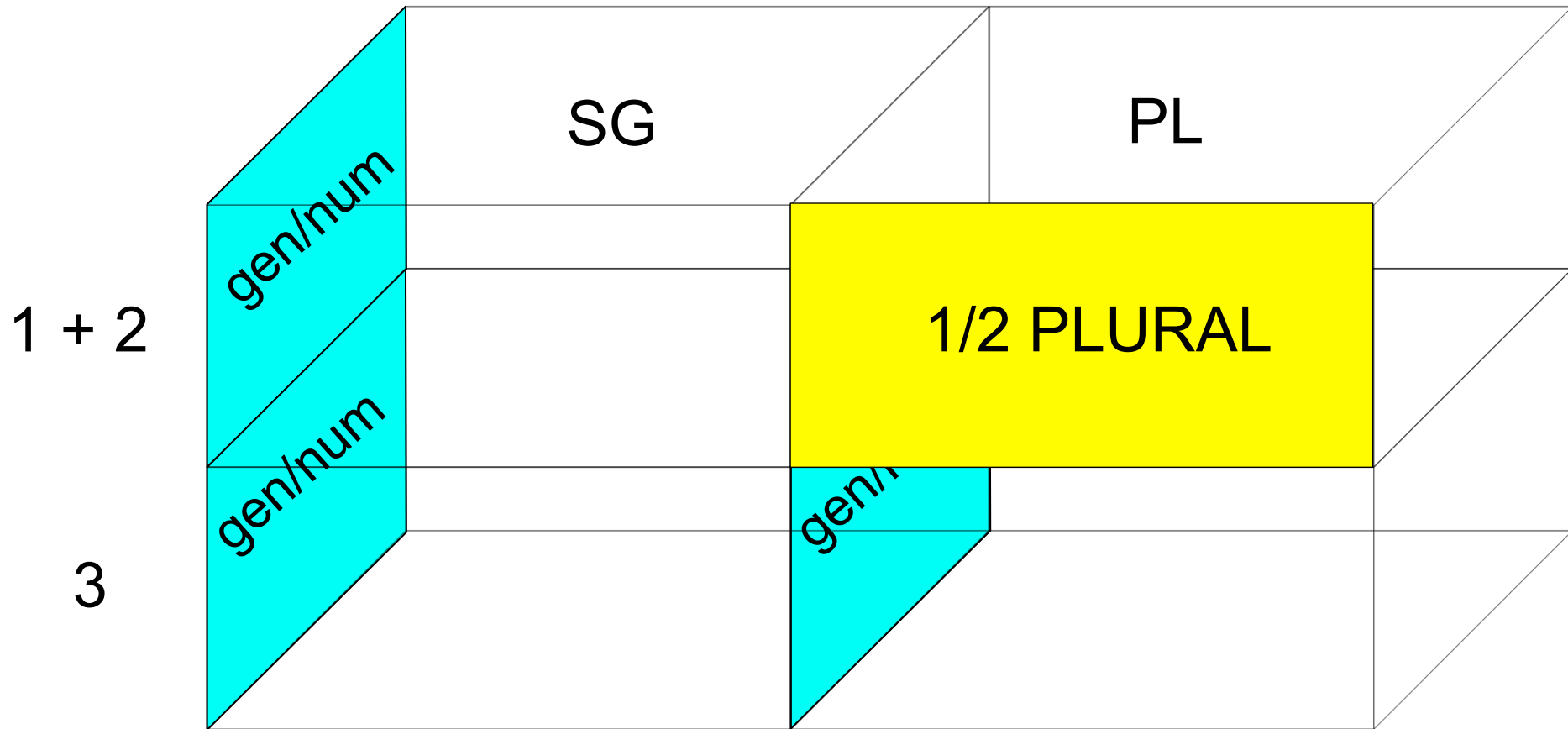


5. The slots with the extra dimension have a *morphomic* pattern

Morphomic:

French 'go'	SG	PL
1	vais	allons
2	vas	allez
3	va	vont

6. The extra dimension defines a small part
(the tail wags the dog) 





What is special about the Archi agreement paradigm? (continued)

7. The different dimensions are *not* based on different stems.

8. Person is marked by syncretism going across word classes.



An agreeing adverb in Archi: *dit:aw* 'early, soon' (gender/number forms)

GENDER	NUMBER	
	SINGULAR	PLURAL
I	dit:a- w	dit:a- b -u
II	dit:a- r -u	
III	dit:a- b -u	dit:a- t' -u
IV	dit:a- t' -u	



An agreeing adverb in Archi: *dit:aw* 'early, soon' (person/number)

PERSON	NUMBER	
	singular	plural
1/2	gender/number	dit:a- t' -u
3	gender/number	gender/number



What is special about the Archi agreement paradigm? (continued)

9. The syncretism makes no sense.

10. The **feature** person is non-autonomous.



What is special about the Archi agreement paradigm? (continued)

11. Person distinguished only in plural, so feature is not realized independently.
12. There can be conflicting inherent and contextual person.



Inherent and contextual features

(22) Upper Sorbian

moj-eho

muž-ow-a

sotr-a

my-M.SG.GEN

husband(M.SG)-POSS-F.SG.NOM

sister(F)-SG.NOM

‘my husband’s sister’

(Faßke 1981: 382-383; Corbett 1987)



Archi pronouns: some paradigm cells allow agreement

(23) buwa-mu **b**-ez dit:au
mother(II)-SG.ERG SG.III-1SG.DAT early<SG.III>

χ:^walli au
bread(III)[SG.ABS] made<SG.III>.PFV

‘Mother made bread for me early.’

Kibrik (1994: 349)



Archi **inherent** and **contextual** person and number

(24) ez ž^wen akɔu dit:a<t'>u
[1/2PL]1SG.DAT 2PL.ABS [1/2PL]see.PFV early<1/2PL>
'I saw you (plural) early.'

Bulbul Musaeva, elicited by Marina Chumakina



CONCLUSIONS

- we need to justify each feature and value we postulate
- Archi can be better analysed while respecting “exclusiveness” of feature values
- BUT this means accepting a non-autonomous person feature
- if we do this, we can (still) hope for a fixed list of features and values



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