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MULTIPLE ERGATIVES: FROM ALLOMORPHY TO DIFFERENTIAL AGENT MARKING

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1. Preliminaries

Ergativity is understood as a pattern of alignment of core relations S, A and P (in the sense of Comrie 1978) whereby S is treated similarly to P and differently from A.

Ergative case is a grammatical marker (bound affix or free-standing adposition) appearing on As in ergative alignment.

BASQUE (isolate, Europe; Hualde & Ortiz de Urbina (eds.) 2003: 180, 181)

(1) a. *Zakurr-a* *etorri* *da.*
dog-DEF(ABS) come AUX.ITR.3SG
'The dog has come.'

b. ***Gizon-a-k*** *zakurr-a* *ikusi* *du.*
man-DEF-ERG dog-DEF(ABS) see AUX.TR.3SG > 3SG
'The man has seen the dog.'

NB This definition does not imply that A-marking should be the only or even the primary function of the ergative case.

Allomorphy is understood here rather broadly as the co-existence of a number of distinct overt realizations of a gram (here, of the ergative case) not reducible to automatic phonological alternations (Booij 1997; cf. Spencer's (2006, 2009) distinction between syntactic and morphological case).

That different realizations of the same morphosyntactic feature or feature bundle can actually differ in their "meaning", has been argued e.g. by Andrew Carstairs-McCarthy (1994, 1998, 2001, 2010), who claimed that such purely morphological information as inflection-class specification may be a part of the "lexical" representation of grammatical markers. A somewhat similar approach, despite all technical and conceptual divergences, is assumed in Distributed Morphology (e.g. Halle & Marantz 1993, Bobaljik 2000).

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2. The scope of the study

In this paper I deal with the allomorphy of the ergative case conditioned solely by features which can be considered "meaningful" on theory-neutral grounds, i.e. lexical-

semantic content of the base the marker attaches to, or grammatical meanings such as definiteness, number, tense etc.

I will not deal with the following kinds of phenomena:

➲ allomorphy determined by phonological properties of the stem (see Paster 2006).

WARRONGO (Pama-Nyungan > Maric, Australia; Tsunoda 2011: 165)

(2) a. *-nggo* vowel-final stems
b. -$C_{[\alpha place]}o$ nasal-final stems
c. *-do* liquid-final stems + deletion of the final liquid
d. *-jo* *y*-final stems

➲ allomorphy determined by arbitrary lexical features of the base (declension class).

KUUK THAAYORRE (Pama-Nyungan > Paman, Australia; Gaby 2006: 158–164; Anderson et al. 2006: 7–9)

(3) a. phonologically conditioned allomorphy with I declension nouns:
-thurr after nasals and coronals
-nthurr elsewhere
b. lexically determined allomorphy in II and III declensions; class membership is unpredictable

Table 1. Ergative allomorphy in Kuuk Thaayorre

I declension			**II & III declensions**		
	Nom	**Erg**		**Nom**	**Erg**
'one'	*thono*	*thono-nthurr*	'woman'	*paanth*	*paanth-u*
'saw'	*so:*	*so:-nthurr*	'man'	*pam*	*pam-al*
'large'	*ngamal*	*ngamal-thurr*	'dog'	*kuta*	*kuta-n*
'sun'	*pung*	*pung-thurr*	'bad'	*waarr*	*waarr-an*

➲ distinct realizations of the agentive participant which in fact involve alternations between a canonical transitive construction and an intransitive two-place construction, and thus an alternation between an ergative case and some other case (e.g. 'involuntary agent constructions', see Kittilä 2005; Ganenkov et al. 2008; Fauconnier 2011).

AGUL (North-Caucasian > Nakh-Daghestanian > Lezgic, Russia; Ganenkov et al. 2008: 177)

(4) a. ***baw-a*** *nek̄* *at̄uzu-ne*.
mother-ERG milk(ABS) pour.out-PST
'Mother (A) poured out the milk (P).'
b. ***baw-afas*** *nek̄* *at̄uzu-ne*.
mother-ADELAT milk(ABS) pour.out-PST
'Mother (Obl) accidentally spilled the milk (S).'

☞ For borderline cases between ergative allomorphy proper and intricate pragmatically conditioned differential agent marking see section 7.

The phenomenon of non-phonologically determined ergative allomorphy does not at first glance seem to be widespread: Palancar (2002: 262) reports less than 8 % of the ergative languages of his sample to have more than one ergative marker.
My convenience sample however includes more than forty languages from all over the world, see Appendix and map 1.
➲ It appears that wherever ergative case marking is widespread, "multiple ergatives" occur as well, though different language families seem to show different preponderance to-

wards this phenomenon: widespread in North Caucasian, much less so in Tibetan (usually no allomorphy at all) or Pama-Nyungan (phonologically conditioned allomorphy prevails).
➲ Does not seem to depend on the degree of boundedness of the ergative marker: "multiple ergatives" are attested both with affixal, clitic and admittedly free word markers.

Why ergative? Just because it turned out to be fun ☺
It is of course equally interesting to survey the allomorphy of any other case. However, with accusatives the prevailing pattern seems to be null vs. overt (the well-known DOM phenomena); investigating datives and genitives would be very instructive. In fact, in some languages of the sample (e. g. Una, Pitjantjatjara, Diyari, Meryam Mir, Kuku-Yalanji, Niuean) the ergative allomorphy is part of a more general pattern involving other cases as well, but this is by no means so in the majority of the languages surveyed.

3. The overview of the typology

3.1. How many ergative markers? See map 2.

Table 2. Number of ergative markers in the languages of the sample

2	3	4	>4
29	7	4	3
		Jingulu, Wambaya Bzhedug Adyghe, Shina Kohistani	Avar, Ingush, Lezgian

Systems with "exuberant" allomorphy are found almost exclusively in the North Caucasus.

3.2. Conditioning factors.
In the languages of the sample, the following types of conditioning of ergative allomorphy are attested:

1) semantic and referential properties of the lexeme/word/noun phrase to which the case marker attaches, e.g. such distinctions as pronoun vs. noun, animate vs. inanimate, proper noun vs. common noun — section 4;
2) morphosyntactic features of the nominal, e. g. number — section 5;
3) clause-level features such as tense-aspect or properties of co-arguments — section 6.
4) "online" semantic/pragmatic factors — section 7.

Combinations of 1) and 2) are also attested.
Note that phenomena under 3) and 4) are usually not treated as "allomorphy" proper.
Of the four types, only type (1) is systematically attested cross-linguistically, while other types are instantiated by sporadic individual cases, see map 3. This, however, does not make them less interesting from a typological and theoretical point of view.

4. Ergative allomorphy conditioned by lexical-semantic class of the nominal

Arkadiev 2011: Cross-linguistically, the distribution of different allomorphs of the ergative case tends to follow the classes defined by the well-known referential hierarchy (Silverstein 1976):

(5) local pronouns > non-local pronouns/demonstratives > proper names and/or kinship terms > humans > non-human animates > inanimates

(6) If a language possesses several ergative markers distributed according to the lexical-semantic class of nominals, different markers cover contiguous areas on the hierarchy.

Table 3. Cross-linguistic distribution of lexico-semantically determined ergative allomorphy

Language	**1Sg**	**local pro-nouns**	**3rd pers. pronouns**	**proper names**	**kinship terms**	**human**	**animate**	**inani-mate**
Trumai, Tamang	Erg1	Erg2						
Zoque, Sanuma	Erg1		Erg2					
Tsova-Tush	Erg1		Erg2				Erg3	
Gaahmg, Khwarshi	Erg1			Erg2				
Georgian	—		Erg1	Erg2				
Kabardian	—		Erg1	(—)	Erg2			
Chukchi	Erg1			Erg2	Erg3			
Pitjantjatjara	—			Erg1	Erg2			
Una	Erg1			Erg2		Erg3		
Chechen	(irregular)			Erg1		Erg2		
Niuean	Erg1				Erg2			
Kalkatungu	Erg1			Erg2	Erg1	Erg2		
Ingush	(irregular)			Erg1~Erg2	Erg2~Erg3 & Erg4		Erg3~Erg4	
Nêlêmwa	Erg1						Erg2	
Tsakhur	—		Erg1				Erg2	
Jingulu	Erg1 ~ Erg2(f)				Erg1 ~ Erg3 (f)	Erg1 ~ Erg2(f)		Erg4
Diyari	(irregular)		Erg1 ~ Erg2(f)		Erg1			

4.1. 1SG vs. others (Trumai, Tamang)

TRUMAI (isolate, Brazil; Guirardello 1999: 27)

(7) a. ***ine-k*** *atlat* *mapa*
3-ERG2 pan break
'He broke the pan.' (Guirardello 1999: 259)

b. ***hi-k*** *de* *ţaf* *naha-n?*
2-ERG2 already navel cut-3ABS
'Will you cut its navel?' (ibid.: 446)

c. ***hai-ts*** *atlat* *mapa*
1SG-ERG1 pan break
'I broke the pan.' (ibid.: 260)

4.2. Local pronouns vs. others (Chiapas Zoque, Sanuma)

CHIAPAS ZOQUE (Mixe-Zoquean > Zoquean, Mexico, Faarlund 2012)

(8) a. ***te'*** ***yomo='is*** *ñü-jay-u* *te'* *jyaya*
DEM woman=ERG2 3+say-APL-CMP DET 3+husband
'The wife said to her husband.' (Faarlund 2012: 30)

b. ***te'=is*** *ñu-jay-u*
DEM=ERG2 3+say-APL-CMP
'He said to them.' (ibid.: 44)

c. ***mij-t*** *maka* *m-nü-maw-e*
2SG-ERG1 FUT-ICP 2-CAUS-go-DEP
'You will take it.' (ibid.: 56)

SANUMA (Yanomaman, Venezuela; Borgman 1990: 119): "short form" local pronouns show special ergative marking (suffix loss), all other nominals, including "long form" emphatic pronouns (9d), form the ergative with *-nö*.

(9) a. *ipa* ***hao-nö*** *hama* *te* *niha* *masulu* *kökö* *toto-ki* *kite*
my father-ERG2 visitor 3SG to beads 3DU give-FOC FUT
'My father will give beads to the visitor.' (Borgman 1990: 121)

b. ***samakö*** *hu* *pia* *kule*
1PL.EXCL.ABS go intend PRS
'We are about to go.' (ibid.: 119)

c. ***sama*** *töpö* *wapa* *kupili*
1PL.EXCL:ERG1 3PL test DIST.PST
'We tested them.' (ibid.: 120)

d. ***kamakö-nö*** ***ma*** *te* *mö* *hãto* *asa-ö*
2PL[LONG]-ERG2 2PL[SHORT]:ERG1 3SG look.at secretely exclusively-TAM
'Only you secretly look at it.' (ibid.: 151)

4.3. Pronouns vs. others (Araona, Gaahmg, Khwarshi, Chirag Dargwa + Dumi, Epena Pedee)

KHWARSHI (North-Caucasian > Nakh-Daghestanian > Tsezic; Khalilova 2009: 68, 143–145): with nouns, the Ergative case is formed by the suffix *-(y)i* or is identical to one of the set of oblique stem markers, cf. 'rabbit' Abs *qʿe* ~ Erg *qʿe-**yi***; personal pronouns and demonstratives form the Ergative with the suffix *-e*, cf. 'I' Abs *do* ~ Erg *d**e***, 'these' Abs *izzu* ~ Erg *izz**e***.

➲ In some languages number comes into play, see also Section 5.

DUMI (Sino-Tibetan > Tibeto-Burman > Himalayan, Nepal; van Driem 1993: 62): *-a* with singular pronouns, *-ʔa* with all other nominals.

(10) a. ***antsi-ʔa*** *im-bi* *phi:s-t-i*
2DU.EXCL-ERG2 he-LOC ask.for-NPST-EXCL
'We shall ask him for it.' (van Driem 1993: 69)

b. ***aŋ-a*** *ani-bi* *phi:t-n-t-ini*
1SG-ERG1 2PL-LOC request-1SG > 2-NPST-23.P
'I shall ask you guys for it.' (ibid.)

EPENA PEDEE (Chocoan, Colombia; Harms 1994: 9–10): *-a* with singular pronouns and emphatic ("marked") plural pronouns, *-pa* elsewhere.

Table 4. Epena Pedee ergative of pronouns (Harms 1994: 58)

	"unmarked"	"marked"
1SG	*mi-a*	*mi-či-a*
2SG	*pi-a*	*pi-či-a*
3SG	*iru-a*	*i-či-a*
1PL	*tai-pa*	*ta-či-a*
2PL	*pãra-pa*	*pã-či-a*
3PL	*ãra-pa*	*ã-či-a*

(11) a. ***usá-pa*** *et^{h}érre* *pee-hí*
dog-ERG2 chicken kill-PST
'The dog killed a chicken.' (Harms 1994: 10)

b. ***mí-a*** *p^{h}áta* *k^{h}o-hí*
1SG-ERG1 plantain eat-PST
'I ate the plantain.' (ibid.: 9)

☞ Note that in the two languages where the distinction between emphatic vs. non-emphatic pronouns is relevant, i. e. Epena and Sanuma (both in the northern part of South America), emphatic pronouns pattern in the opposite ways: together with nouns in Sanuma, distinctly from them in Epena.

4.4. Demonstratives vs. other nominals (Adyghe, Kabardian, Georgian)

KABARDIAN, standard variety (North-Caucasian > Abkhaz-Adyghe; Kumakhov & Vamling 2009: 19, 20): common nouns vs. demonstratives (local pronouns and most proper names do not distinguish Abs and Erg)

(12) a. ***ŝaḳʷe-m*** *dəʁʷeẑə-r* *jə-wəč̣-a-ŝ.*
hunter-ERG2 wolf-ABS 3SG.A-kill-PST-DCL
'The hunter killed the wolf.' (Kumakhov & Vamling 2006: 70)[1]

b. ***a-bə*** *wəne-r* *j-e-ṣ̂.*
DEM-ERG1 house-ABS 3SG.A-PRS-do
'He builds the house.' (ibid.: 70)

4.5. Proper names vs. others (Niuean, Pitjantjatjara + Diyari)

NIUEAN (Austronesian > Malayo-Polynesian > Oceanic, Polynesia; Massam 1996): different sets of case prepositions, including Ergative, for pronouns and proper names vs. common nouns.

(13) a. *Koe tele* ***e*** ***Sione*** *a* *Sefa.*
PRS kick ERG1 PN ABS1 PN
'Sione is kicking Sefa.' (Massam 1996: 93)

b. *Kua hahala* ***he*** ***tagata*** *e* *akau.*
PRF chop ERG2 man ABS2 tree
'The man is chopping the tree.' (ibid.: 84)

PITJANTJATJARA (Pama-Nyungan > South-West, Australia; Bowe 1990: 10): proper names *-lu* vs. common nouns *-ngku*; pronouns do not have an ergative case.

4.6. Kinship terms vs. others (Chechen, Kalkatungu)

CHECHEN (North-Caucasian > Nakh-Daghestanian > Nakh, Russia; Nichols 1994: 24): a special ergative allomorph *-s* reserved for personal names and kin terms vs. the regular allomorph *-uo*, cf. *da:-****s*** 'father-ERG1' (ibid. 72) vs. *a:xarxuo-č-****uo*** 'peasant-OBL-ERG2'.

4.7. Humans vs. non-humans (Tsakhur, Nêlêmwa)

TSAKHUR (North-Caucasian > Nakh-Daghestanian > Lezgic; Kibrik & Testelets (eds.) 1999: 350)

(14) a. *za-s* *ham-ni* ***anna*** ***wasilewn-ē*** *dars* *hiwo.*
I-DAT that-OBL PN PN-ERG1 lesson give:PFV
'This Anna Vasiljevna has taught me.'

b. ***balkan-i-n*** *balkan-na* *iš=ī* *hā?-a.*
horse-OBL-ERG2 horse-ATR work=EVD do-IPF
'The horse was doing horse's work.'

NÊLÊMWA (Austronesian > Malayo-Polynesian > Oceanic, New Caledonia; Bril 2002)

(15) a. *hla* *odaxa-hla* ***a*** ***kââma-hla.***
they go.to.meet-3PL ERG1 father-3PL
'Their father is going to meet them.' (Bril 2002: 135)

b. *i* *khua-na* ***ru*** ***mabo*** ***hleny.***
he eat-1SG ERG2 wasp that
'A wasp bit me.' (ibid.: 136)

[1] Transcription and glosses adapted to the standards used by the "Moscow Circassian Research Group".

c. *i* *thege* *ve* *khayoot* ***ru*** ***loto*** *ena*
he run APL fence ERG2 car this
'The car drew the fence.' (ibid.: 128)

Nouns denoting children and groups belong to the non-human class:

(16) a. *hla* *kaage* *habwali-n* ***ru*** ***âbeen.***
they steal clothes-3SG ERG2 stranger
'Some strangers stole his clothes.' (ibid.: 136)

b. *i* *fhe* *me* *pwâ-ciic* *hleny* ***ru*** ***âlô.***
he bring here fruit-tree this ERG2 child
'The child brings here this fruit.' (ibid.)

4.8. Animates vs. inanimates: so far non-attested, but Kuku-Yalanji is close (see below).

4.9. A different parameter: gender (Avar, Kati, Yawa + Diyari + Shina Kohistani)
AVAR (North-Caucasian > Nakh-Daghestanian > Avar-Andic; Alekseev & Ataev 1997: 42–43, 50–52): productive markers of the oblique stem coincide with the Ergative and distinguish gender: *-aš̄* masculine vs. *-aλ̄* feminine + inanimate, thus *durc-**aš̄*** 'son-in-law-ERG.SG' vs. *ebel-**aλ̄*** 'mother-ERG.SG', *kalam-**aλ̄*** 'word-ERG.SG'. See also Jingulu below.

DIYARI (Pama-Nyungan > Karnic, Australia; Austin 2013: 55): female 3rd person pronouns and proper names *-ndru* (= ablative) vs. *-(ya)li* elsewhere (+ 1sg,2sg irregular).

(17) a. ***wangapula-li*** *wima* *wangka-yi* *kunarra-ndru*
Wangapula-ERG1 song.ACC sing-PRS Cooper.Creek-ABL
'Wangapula is singing a song about Cooper Creek.' (Austin 2013: 139)

b. ***Dora-ndru*** *nhinha* *ngar̲i-lka-yi* *nganthi-nganthi-ya*
Dora-ERG2 he.ACC go.down-TR-PRS RDP-meat-ALLAT
'Dora takes him down to the animals.' (ibid.: 140)

c. ***mankarra-li*** *nganha* *nhayi-rna* *wara-yi* ***parlpa-li***
girl-ERG1 1SG.ACC see-PRT AUX-PRS some-ERG1
'Some girls saw me.' (ibid.: 99)

4.10. More than two-way systems
TSOVA-TUSH a.k.a. Batsbi (North-Caucasian > Nakh-Daghestanian > Nakh, Georgia; Holisky & Gagua 1994: 165, 173–175): local pronouns form Erg by metathesis; demonstratives and singular human nouns attach *-s*; other nominals attach *-v*.

Table 5. Ergative markers in Tsova-Tush

	Abs	**Erg**
'we(excl)'	*txo*	***atx***
'that'	*o*	*oqu-**s***
'father'	*dad*	*dada-**s***
'fox'	*cok'al*	*cok'le-**v***
'knife'	*nek'*	*nek'e-**v***

CHUKCHI (Dunn 1999: 100–101): personal pronouns *-(n)an* vs. proper nouns *-ne* vs. common nouns *-e*.

(18) a. *ɣ**əm-nan*** *tə-n-walom-at-ənat* *ənpənacɣ-ət.*
I-ERG1 1SG.A-CAUS-understand-CAUS-3PL.P old.man-3PL.ABS
'I informed the old men.' (Dunn 1999: 212)

b. ***Nutekew-ne*** *Majkələ-na* *rə-jp-annen* *cinitkin* *witəcɣ-ən.*
PN-erg2 PN-ALLAT CAUS-wear-3SG>3SG REFL.POSS overtunic-3SG.ABS
'Nutekew put his overtunic on Michael.' (ibid.: 135)

c. *taŋqonpə* *ənqen* ***ʔeqe-njiw-e*** *n-in-iw-qin…*
always that(ABS) bad-uncle-ERG3 HAB-TR-say-3SG
'The bad uncle always said to him…' (speech of non-relative) (ibid.: 103)

UNA (Mek, Western New Guinea; Louwerse 1988: 107–109): ergative with personal pronouns *-ci*, with proper names, inalienably possessed kin terms and nominalizations denoting males *beji*, with other nouns *aji*

(19) a. ***er-ci*** *kaling* *tentok* *kareb-kwan-si-r*
he-ERG1 necklace one give-FUT-1PL-3SG
'He will give a necklace to us.' (Louwerse 1988: 109)

b. ***ni-nay*** ***beji*** *nyi-siy siyenyi* *kib-reyb-ma-n-ow*
1SG-father ERG2 me-DAT headman be-CAUS-ICP-1SG.P-PST.3SG
'My father installed me as a headman.' (ibid.: 108)

c. *ton* ***nang*** ***aji*** *ato* *eb-ma-y*
some persons ERG3 like say-ICP-PST.3PL
'Some persons say so.' (ibid.)

ADYGHE, Bzhedug dialect (Zekox 1969: 93–94): distinct Ergative markers for demonstratives *-š'*, for proper names *-ə*, and for common names *-m* + cumulation with plural, see below.

JINGULU (West-Barkly, Northern Australia; Pensalfini 1997: 244, 273): a system with four Erg markers distributed according to gender and the animacy hierarchy.

Table 6. Ergative markers in Jingulu

female kinship terms (20a)	*-ka*
other female nominals (including personal pronouns and certain inanimates) (20a)	*-nga*
other animate nominals (including personal pronouns) (20b)	*-rni*
inanimate nouns (20c)	*-(C)arndi* = Ins

(20) a. *kunyangulanama* *ya-miki* *ngaja-nga-nu* ***lala-ka*** ***ngarri-ninga***.
other.day 3SG-came see-1SG-PST aunt-ERG:FKIN my-ERG:F
'The other day my father's sister came to visit me.' (Pensalfini 1997: 273)

b. ***babi-rni*** *ikiya-rnarna-nu* *ibilkini*.
older.brother-ERG:M wet-3SG > 1SG-PST water
'My brother wet me.' (ibid.)

c. ***darrangku-wardni*** *maya-ngarna-nu*.
tree-ERG:INAN/INS hit-3SG > 1SG-PST
'I ran into a tree.' (lit. 'a tree hit me', ibid.: 284)

INGUSH (North-Caucasian > Nakh-Daghestanian > Nakh, Russia; Nichols 2011: 127): irregular Erg with pronouns, *-z* for proper names and certain kinship and human nouns, *-a* for consonant-final proper names, *-uo* for consonant-final stems and *-aa* a "conservative" marker restricted to certain noun types.

LEZGIAN (North Caucasian > Nakh-Dagestanian > Lezgic, Russia, Azerbaijan; Haspelmath 1993: 74–77): ten (!) Ergative suffixes (=the oblique stem) distributed roughly according to semantic parameters, but with a fair amount of unpredictability.

Table 7. Ergative markers in Lezgian

condition	**marker**	**Abs**	**Erg**
C-final proper names	*-a*	*Farid*	*Farid-a*
abstract nouns and masdars, most plurals	*-i*	*jaruwal* 'redness'	*jaruwili-i*
plurals in *-bur*	*-u*	*jarubur* 'red ones'	*jarubur-u*
non-discreet mass	-A*di*	*nek* 'milk'	*nek'-edi*
monosyllabic nouns denoting animals	-rA	*lam* 'donkey'	*lam-ra*
lexically determined	-Uni	*kam* 'trap'	*kam-uni*
	-A	*q'el* 'salt'	*q'el-e*
	-U	*siw* 'mouth'	*siw-i*
	-Ci	*žin* 'ghost'	*žin-ži*
default	*-di*	*fil* 'elephant'	*fil-di*

Common nouns take a different Ergative marker when used as proper names, *cükwer* 'flowers': Erg *cükwer-**i*** vs. *Cükwer-**a*** (ibid.: 75).

4.11. Summary (cf. Table 3 above)

➲ Whether the cross-linguistic effects of the referential hierarchy on ergative allomorphy can be regarded as supporting the validity of this hierarchy as an explanatory device in the typology of case marking and grammatical relations is not obvious (cf. recent critique of the hierarchy-based explanations in Filimonova 2005, Bickel & Witzlack-Makarevich 2008, Bickel 2008).

➲ Multidimensional systems, where ergative allomorphy depends not only on the position of the nominal on the referential hierarchy (5), but also on such independent parameters as gender (Jingulu) or number (standard Adyghe or Meryam Mir, see below), may actually violate the generalization in (6).

➲ Since ergative allomorphy always results from diachronic changes in individual languages and language families, it might well be the case that observed hierarchical patterns are merely epiphenomenal to a more general tendency to group together cognitively salient lexical-semantic distinctions such as animate vs. inanimate, human vs. non-human, masculine vs. feminine, some of which are reflected in the referential hierarchy.

➲ A further case for language-particular hierarchies, cf. Haspelmath (to appear)?

5. Ergative allomorphy conditioned by nominal morphosyntactic features

Situations when the choice of the marker of one morphosyntactic feature/value is dependent on the value of another feature in the representation of the same wordform have been widely discussed in the literature (e.g. Plank 1986; Carstairs 1987, Carstairs-McCarthy 1998, 2001; Bobaljik 2000; Adger et al. 2003), but have not been subject to large-scale typological investigations.

☞ Grammatically conditioned allomorphy (GCA) should be distinguished from cumulative exponence:

Table 8. Cumulative exponence (Spanish) vs. GCA (Latin)

	SPANISH 'speak'	
	Presente	**Preterito**
1Sg	*habl-**o***	*habl-**é***
2Sg	*habl-**as***	*habl-**aste***
3Sg	*habl-**a***	*habl-**ó***

LATIN 'decorate'	
Praesens	**Perfectum**
orn-o	*orn-ā-v-i*
*orn-ā-**s***	*orn-ā-v-**isti***
*orn-a-**t***	*orn-ā-v-**it***

In the expression of case, including the ergative, cumulation is fairly widespread.

CHUKCHI (Dunn 1999: 101; Skorik 1961: 180): cumulation with number for higher animates.

(21) *Rintəŋe-**ne*** vs. *Rintəŋe-**rək***
PN-ERG.SG PN-ERG.PL
'Rintyna' (a person) 'the Rintynas' (a family)

5.1. Number

KATHMANDU NEWAR (Sino-Tibetan > Tibeto-Burman > Himalayan, Nepal; Hargreaves 2003: 373): ErgPl *-sã* vs. ErgSg *-nɔ* or nasalization of the preceding vowel.

Table 9. Singular vs. plural ergative markers in Kathmandu Newar

	Sg	**Pl**
Abs	*pasa* 'friend'	*pasa-pĩ:*
Erg	*pasã:*	*pasa-pi-sã:*

STANDARD ADYGHE has a special ErgPl marker *-me* used on a par with the default allomorph *-m* (see Arkadiev 2014a, 2014b for a discussion).

(22) a. *ç̌'ale-**m*** *ç̌'ale-xe-**m*** no allomorphy
boy-ERG boy-PL-ERG

b. *ç̌'ale-**me*** ~ *ç̌'ale-**xe-me*** cumulation vs. allomorphy
boy-ERG.PL boy-PL-ERG.PL

For demonstratives, there is a dedicated ErgSg allomorph *-š'*, cf. 'that-ERG' *a-**š'*** vs. 'that-PL-ERG' *a-xe-**m*** ~ *a-xe-**me*** / **a-xe-š'*.

➲ Combinations of grammatical and lexical conditioning occur in fact more frequently.

MERYAM MIR (Eastern Trans-Fly, Australia; Piper 1989: 31–33): some singular animate common nouns *-et* (23a) vs. non-singular common nouns *-gize* (23b) vs. all other nouns (including, "counter-hierarchically", inanimates and proper names) *-(i)de* (23c,d).

(23) a. *kári* ***berbet-et*** *dorge* *ike-li* *idim-lam...*
1SG.GEN sibling-SG.ERG work make-PRS.IPF morning-ABL
'My brother has been working since this morning.' (Piper 1989: 32)

b. ***koskir-gize*** *yábi* *na-wer-da*
married.female-PL.ERG them 3NSG.P-weave-PFV.PL
'The women wove them (the mats).' (ibid.)

c. *able* ***wag-ide*** *no* *ad-em* *yába* *nar* *etkamrik-i*
DEM wind-ERG only out-ALLAT their boat make.drift-PFV
'The wind only drifted their boat further out.' (ibid.)

d. ***Gílam-ide*** *abab-ise* *dikepwar-er* *lamar* *koskir*
Gilam-ERG former-like think-NPRS.IPF spirit married.female
'Gilam thought as he had the last time that she was a ghost.' (ibid.: 50)

WAMBAYA (West Barkly, Australia, Nordlinger 1998: 83–84): a dedicated Ergative marker occurring after the Dual suffix (24a) vs. three other mostly lexically/phonologically conditioned allomorphs (24b–d).

(24) a. ***bungmaj-buli-ji*** *wurl-aji* *daguma* *juwarramba*
old.person-DU-DU.ERG 3DU.A-HAB.PST hit men
'The (two) old women had been killing all the men.' (Nordlinger 1998: 83)

b. ***ngabulu-nu*** *ngiyi-ng-agba* *dawu* *murlu*
milk-ERG2 3SG.NM.A-1.P-HYP bite eye
'The sap might sting my eyes.' (ibid.)

c. ***gugu.ga-yi*** *ngiy-a* *wugbardi* *ngarra*
grandmother-ERG3 3SG.NM.A-PST cook 1SG.OBL
'Grandmother cooked (dinner) for me.' (ibid.: 84)

d. ***bungmanyi-ni*** *gini-ng-a* *jiwayu*
old.man-ERG4 3SG.M.A-1.OBJ-NFUT give
'The old man gave it to me.' (ibid.)

See also Shina Kohistani below.

5.2. Definiteness

Not surprisingly, in systems where the distribution of Erg markers is determined by humanness or animacy, this kind of allomorphy can be sometimes employed to mark definiteness. The following natural correlation between animacy and definiteness (cf. Comrie 1979, Bossong 1985, Aissen 1999, 2003) is observed.

(25) If a language possesses several ergative markers distributed according to the animacy/humanness, and such markers can be employed to mark definiteness/referentiality, then the marker associated with greater resp. lesser animacy will be used for definiteness resp. indefiniteness.

KORYAK (Chukotko-Kamchatkan, Russian Far East, Žukova 1972: 95–103): choice of the ergative marker with kinship terms depends on the presence of the definiteness affix.

(26) *an'a-**ta*** vs. *an'a-**na-k***
grandmother-ERG2 grandmother-DEF-ERG1
'some grandmother' 'the grandmother' (Žukova 1972: 99)

NÊLÊMWA (Bril 2002: 95, 136): as has been shown above (16), nouns denoting groups normally co-occur with the non-human Erg *ru*; however, the human Erg *a* may be used for marking definite groups:

(27) a. *hla* *khiibo-e* ***ru*** *agu.*
they hit-3SG ERG2 people
'Some people hit him.' (ibid.: 136)

b. *hla* *fhe* ***a*** *hleena* *agu.*
they take ERG1 these people
'These people took it away.' (ibid.)

6. "Multiple ergatives" conditioned by clause-level features

6.1. Tense-aspect (cf. much more widespread instances of the so-called TAM-split ergativity, see Malchukov & de Hoop 2011 for a recent overview).

SHINA KOHISTANI (Indo-European > Indo-Iranian > Dardic, Pakistan; Schmidt & Kohistani 2008: 51–57): a set of lexically distributed inherited Indo-Aryan Ergative markers used in perfective clauses (28a) vs. an innovated Ergative marker for imperfective clauses, appar-

ently borrowed from the neighbouring Sino-Tibetan languages (28b) (Bailey 1924: 211–212; Hook & Koul 2004: 214).

Table 10. Ergative allomorphy in Shina Kohistani

	M 'cloud, rain'		**F** 'night'	
	Sg	**Pl**	**Sg**	**Pl**
Nom	*áẓo*	*áẓa*	*ráati*	*ráati*
ErgPfv	*áẓo-e*	*áẓo-ji*	*ráaty-oo*	*ráatyo-ji*
ErgIpf	*áẓo-s*	*áẓa-s*	*ráatyi-s*	*ráatye-s*

(28) a. *dadii* *gaa* ***maamad sher aly-o*** *wake* *dye*
grandmother and Muhammad Sher Ali-ERG.PFV.SG.M fight give.PFV
'Grandmother and Muhammad Sher Ali fought.' (Hook & Koul 2004: 214)

b. *mehefil-ijaa* ***maamad sher ali-se*** *noʈe* *dyũũ* *asilo*
party-LOC Muhammad Sher Ali-ERG.IPF dance give.IPF AUX.PST
'Muhammad Sher Ali was dancing in the party.' (ibid.)

Cf. "regular" aspect-based alignment split in other Indo-Iranian languages:

HINDI (Indo-European > Indo-Iranian > Indo-Aryan, India)

(29) a. *Ravī* *kelā* *khā* *rahā* *thā.*
Ravi(NOM) banana(NOM) eat DUR AUX.PST
'Ravi was eating a banana'. (Mohanan 1994: 59)

b. ***bacce-ne*** *kītāb* *paḍhī.*
child.OBL-ERG book read.PFV
'The child read a book'. (ibid.)

Or not-so-regular splits not involving change in alignment, similarly to Shina:

MINGRELIAN (Kartvelian, Georgia; Harris 1991: 365–366): alternation between two kinds of nominative markers

(30) a. ***baɣana*** *ʔude-s* *skid-u.*
child(NOM) house-DAT stay-3SG.SBJ.PRS
'The child is staying in the house.'

b. ***muma*** *arʒen-s* *cxen-s* *skua-s.*
father(NOM) give-3SG.SBJ.PRS horse-DAT child-DAT
'The father is giving a horse to his child.'

(31) a. ***ḳoč-k*** *doɣor-u.*
man-NAR die-3SG.SBJ.AOR
'The man died.'

b. ***muma-k*** *cxen-i* *ki-me-č-u* *skua-s.*
father-NAR horse-NOM PVB-PVB-give-3SG.SBJ.AOR child-DAT
'The father gave a horse to his son.'

GEORGIAN (Kartvelian): alternation between two types of ergative/active marking triggered by perfective ("aorist") vs. inferential ("perfect") — should probably be included into the main sample, if the "perfect" is considered a regular transitive construction.

(32) a. ***glex-ma*** *datesa* *simind-i*
peasant-ERG sew:AOR.3SG corn-NOM
'The peasant sowed corn.' (Harris 1981: 1)

b. ***glex-s*** *dautesavs* *simind-i*
peasant-DAT sew:PRF.3SG corn-NOM
'The peasant has [apparently] sown corn.' (ibid.)

☞ A possible addition to Nordlinger & Salder (2004)'s typology of nominal TAM?

6.2. Person of the other argument (instance of "global" case-marking rules, cf. Silverstein 1976 or Malchukov 2006)

YAKIMA (Sahaptian, Washington, USA; Jansen 2010): 1 + 2 vs. 3 person object

(33) a. *tamánwit-**nim**=nash* *i-nápayun-ta.*
law-ERG1=1SG.P 3SG.SBJ-defend-FUT
'The law will support me.' (Jansen 2010: 134)

b. *pá-k'inu-sha* *Máali-**yin*** *Sám-nan.*
INV-see-IPF Mary-ERG2 Sam-ACC
'Mary sees Sam.' (ibid.: 136)

Cf. an opposite situation with accusative case allomorphy:
KOLYMA YUKAGHIR (isolate, Russia; Maslova 2003: 89): 1 + 2 vs. 3 person subject

(34) a. ***met-ul*** *amde-l-get* *polde-mek*
1sg-ACC1 die-PRF-ABL save-TR:2SG
'You have saved me from death.' (Maslova 2003: 94)

b. *tet* *kimnī* ***met-kele*** *kudede-m*
2SG whip 1sg-ACC2 kill-TR:3SG
'Your whip has killed me.' (ibid.: 93)

6.3. Affirmative vs. negative
CABÉCAR (Chibchan, Costa Rica; Verhoeven 2013):

(35) a. *Jíska* *i* ***të*** *kököblö* *jajátaná*
here 3 ERG.AFF basket leave.PST
'She left the basket here.' (Verhoeven 2013: 4)

b. *Ká* *i* ***wa*** *jíska* *kököblö* *janejátaná*
NEG 3 ERG.NEG here basket leave.NEG.PST
'She did not leave the basket here.' (ibid.)

Cf. splits in alignment triggered by negation:
MARUBO (Panoan, Brazil; Costa 1998[2]: 76–80): ergative marker is not used in negative (as well as habitual) clauses.

(36) a. ***matu-n*** *nami* *pi-ai*
2PL-ERG meat eat-PRS
'You eat meat.' (Costa 1998: 74)

b. ***mayanpa*** *nami* *pia-ma*
Mayanpa meat eat-NEG
'Mayanpa does not eat meat.' (ibid.: 79)

KAYAPÓ (Je > Northern, Brazil; Silva 2001, Miestamo 2013): ergative in negative and some types of irrealis clauses, neutral elsewhere.

(37) a. ***ga*** *ŋo* *kam* *re*
2.NOM river LOC swim
'You swim in the river.' (Miestamo 2013: 21)

[2] Access to this publication courtesy of Daniel Everett.

b. ***ga*** *ŋo* *kam* *a-rere* *ket*
2.NOM river LOC 2.ABS-swim.NFIN NEG
'You don't swim in the river.' (ibid.)

(38) a. ***ba*** *i-kra* *mɤ*
1.NOM 1.POSS-son hold
'I held my son.' (ibid.)

b. ***ije*** *i-kra* *mɤj* *ket*
1.ERG 1.POSS-son hold.NFIN NEG
'I didn't hold my son.' (ibid.)

In the closely related APINAJÉ, "the ergative marker does not ever occur in the negation of transitive predicates" (de Oliveira 2005: 251).

Cf. a negation-triggered split in object case-marking not involving alignment change:

LITHUANIAN (Indo-European > Baltic, personal knowledge): "genitive of negation"

(39) a. *Jon-as* *perskait-ė* ***laišk-ą***.
Jonas-NOM.SG read-PST(3) letter-ACC.SG
'Jonas read the letter.'

b. *Jon-as* *ne-perskait-ė* ***laišk-o***.
Jonas-NOM.SG NEG-read-PST(3) letter-GEN.SG
'Jonas did not read the letter.'

☞ Though rare, such instances of case-marker allomorphy (if the term is still appropriate) nicely supplement the more general picture of case variation and in particular suggest that case alternations need not necessarily entail splits in alignment.

7. "Fluid" "multiple ergative" marking: genuine DAM

In those cases where the choice of the ergative marker is not fixed by lexical or grammatical rules, but is determined "online" according to the semantic and/or pragmatic motivations of the speaker, we are no longer dealing with allomorphy but rather with differential agent marking (DAM) *sensu stricto*.

KUKU-YALANJI (Pama-Nyungan > Yalandyic, Queensland; Patz 2002: 124–129): "potent" (X) and "neutral" (Y) sets of case markers including Ergative, with "[a] wide range of nouns around the mid-section of the animacy hierarchy [accepting] case markers from either set" (ibid.: 124), see Table 11; "where a choice is possible, a speaker may exercise this choice according to their own interpretation" (ibid.: 126).

Table 11. Animacy hierarchy and case inflection in Kuku-Yalanji

humans, personified mythical beings, ghosts and spirits, dogs	set X
generic terms with animate reference, animals, natural forces	set X or set Y
plants, food, geographical features, body parts, language, illness, ceremonies, some kinship terms	set Y

– "real referent" vs. "abstract concept" (ibid.):

(40) a. ***dingkar-angka*** *karrkay* *kuni-ny*
male-ERG1 child hit-PST
'That was a man who hit the child. (not a woman; I saw him)' (Patz 2002: 126)

b. ***dingkar-abu*** *karrkay* *kuni-ny*
male-ERG2 child hit-PST
'Some man hit the child. (I think it was a man; but it could've been another child)' (ibid.)

– animate vs. inanimate (ibid.: 129):

(41) a. *yinya-**ngka*** *kubarr-**angka*** *yalbay-**ngka*** *maral* *bayka-ny*.
that-ERG1 eel-ERG1 big-ERG1 girl bite-PST
'That big eel bit the girl.' (ibid.: 129)

b. *nganya* *bambaybunga-ny* *kubarr-**da***.
I:ACC sick-PST eel-ERG2
'The eel [meat] made me sick.' (ibid.)

– voluntary action vs. "unpremeditated reflex action on provocation" (ibid.: 126):

(42) a. ***malal-angka*** *kamu* *karrba-ny*
spider-ERG1 mosquito grab-PST
'The spider grabbed the mosquito.' (ibid.: 129)

b. *nganya* ***murrajamun-du*** *baka-ny*
1SG.ACC stonefish-ERG2 poke-PST
'A stonefish poked me.' (ibid.)

"Animate/human" Erg markers may be employed for personification of non-human or inanimate referents, and, accordingly, "inanimate/non-human" Erg markers may attach to human nouns in pejorative or derogatory contexts.

CHUKCHI (Dunn 1999: 103)

(43) *epeepeqejə-**ne*** *iw-nin…*
spider-ERG1 say-3SG > 3SG
'The spider said…' (from a folktale with a spider as a protagonist)

NÊLÊMWA (Bril 2002: 134): "L'emploi de *ru* en référence à des humains est péjoratif; il connote l'indifférence ou l'ironie" ('the use of *ru* with reference to humans is pejorative; it has connotations of indifference or irony') – but no examples are provided ☹

Similar phenomena with the nominative marking:

POLISH (Indo-European > Slavic; Wierzbicka 1988: 455–459): for masculine human hard-stem nouns, NomPl *-i* is neutral, *-owie* implies 'importance' or 'dignity', and *-y*, "which is otherwise characteristic of non-human masculine nouns, implies contempt" (ibid.: 455).

Some other cases from Australia.
WARRWA (Nyulnyulan; McGregor 2006): three ergative markers, *-na*, *-ma* and *-nma*, of which the use of *-ma* appears to be (quite intricately) phonologically determined, while *-na* and *-nma* are distributed according to pragmatics: *-nma* marks agents that are "unexpected, unpredictable or surprising in terms of their identity and agentivity" (McGregor 2006: 399), while *-na* is neutral.

"In [44b] the big woman is both unexpected as Agent … and potent … By contrast, the Agent in the second sentence of [44a] is both expected and low in potency … Sentence [44c] summarises what we have already been told, and thus represents background information." (ibid.: 402)

(44) a. *nyinka* *jurrb* *ji-na-yina* *kinya* *wanyji* *kwiina* *iri,*
this jump say-PST-3SG.OBL this later big woman
ka-na-ngka-ndi *ji-na,* ***kinya-na*** *wuba.*
1SG.A-TR-FUT-get say-PST this-ERG1 small
'The little one jumped at her then, at the big woman, and tried to get her.' (McGregor 2006: 402)

b. *kinya* ***kwiina-nma*** *iri* *marlu* *laj* *ji-na*
this big-ERG2 woman not throw say-PST
kinya *wuba,* *laj,* *marlu* *laj* *ji-na.*
this small throw not throw say-PST
'But no, the big woman threw the little man away.' (ibid.)

c. *kaliya* *kujarrangal* *ngi-nda-na* *kinya-ngana,*
finish twice NFUT-go-PST this-ALLAT
laj *ji-na* ***kinya-na*** *iri* *kujarrangal.*
throw say-PST this-ERG1 woman twice
'He went to her twice, but she threw him away both times.'

WARAY (Gunwingguan; Harvey 1986): the function of the ergative is (optionally) performed by the Instrumental *-yi*, used for disambiguation (45a) and "presentation of important information in a text" (ibid.: 201) (45b), and by the Ablative *-yang*, when the A participant "may potentially be viewed as a source or origin" (ibid.: 208), cf. (45c).

(45) a. *pu-m* ***kuruwak-yi*** *kaking* *antjalmi* ***akala-yi*** *pu-m* *kuruwak*
hit-REAL PN-ERG yesterday in.turn he-ERG hit-REAL PN
'David [sic!] hit him yesterday and in return he hit David.' (Harvey 1986: 200)

b. ***tjatpula-yi*** *kuntiyi-n-inj* *anwak* *mamam* *a-kala-wu*
old.man-ERG play-IRR-IPF little daughter he-DAT
'The old man used to play around with his young daughter.' (ibid.: 202)

c. ***tjukung-yang*** *nat-putj-pu-m* *alkala-wu*
aunt-ABL OBJ-send-AUX-REAL she-DAT
'Her aunt sent her [the clothes].' (ibid.: 210)

MARRITHIYEL (Daly; Green 1989): three cases can fulfil the role of the Ergative: Instrumental *-gin*, Ablative *-nganan*, and Perlative *-wurri*. The Instrumental is used with "transitive subjects which are semantically or pragmatically marked (i.e. have a low predisposition to occupy this role)" (Green 1989: 49), cf. (46a), the Perlative "seems to be associated with a sense of the action being in some way transferred or moved from the A to the undergoer" (ibid.: 52), cf. (46b), and the Ablative "appears to have the semantic effect of marking the A as acting under his/her initiative or motivation, ... suggesting the A as providing his/her internal source or cause for performing the action, rather than being externally motivated" (ibid.: 53), cf. (46c).

(46) a. ***ngiya-gin*** *ganbi* *gani-fifi-ya*
she-INS bamboo 3SG.A.REAL-go.blow:RDP-PST
'She was blowing the bamboo (i.e. playing the didgeridoo).' — "the verb depicts an activity not normally engaged in by females" (Green 1989: 50)

b. *wadi* ***finthfinthi-wurri*** *marri* *gimi-iwinj-ya*
male older:RDP-PERL words 3SG.A.REAL + do-3NSG.OBL-PST
'The old man spoke to them.' (ibid.: 53)

c. ***nanj-nganan*** *ginil-dut-a*
2SG-ABL 2SG.A.REAL-find-PST
'You found it (i.e. went out and did it yourself'

➲ In languages where the ergative construction has not yet fully grammaticalized, several "semantic" cases can compete for the A-marking function, and this may potentially give rise to systems with allomorphy. Cf. e.g. case syncretism in Chukchi and Koryak, where the "animate" Ergative is formally identical to the Locative, while the "inanimate" Ergative coincides with the Instrumental (Spencer 2006: 6–7; Žukova 1972: 99).
➲ Relative rarity (pending further research) of such systems can be explained by the tendency for analogical leveling of paradigms and the avoidance of (quasi-)synonymy of markers with primarily syntactic rather than semantic functions. However, section 4 suggests that languages perfectly tolerate lexically motivated inflectional synonymy.

8. Discussion and conclusions

Non-phonologically conditioned allomorphy of case-markers is fairly widespread, however, it has not been really studied from a typological point of view, and the distinction between allomorphy based on arbitrary lexical features such as declension class and allomorphy conditioned by morphosyntactic or lexical-semantic features is rarely made.
The phenomena I discussed appear to be rare from a typological perspective, but are they "marginal"? Cf. a strong point for the relevance of typological *rara* made by Cysouw & Wohlgemuth 2010.
➲ Ergative allomorphy conditioned by noun-external features such as tense-aspect, negation, or person features of the object are instructive for the typology of case-marking alternations and "alignment splits". In addition, they pose non-trivial problems for the theories of syntax-morphology interface, representing clearly non-canonical behaviour, cf. Corbett (2008: 12): "Canonical use of morphosyntactic features and their values does not admit syntactic conditions".
➲ Ergative allomorphy conditioned by the lexical-semantic class of the nominal adds an unexpected perspective to the study of the well-known and not undisputed (cf. Bickel & Witzlack-Makarevich 2008) effects of the referential hierarchies on case-marking and grammatical relations, cf. also Aristar 1997.

Abbreviations

1 — 1st person; 2 — 2nd person; 3 – 3rd person; A — agent; ABL — ablative; ABS — absolutive; ACC — accusative; ADELAT — adelative; AFF — affirmative; ALLAT — allative; AOR — aorist; APL — applicative; ATR — attributive; AUX — auxiliary; CAUS — causative; CMP — completive; DAT — dative; DCL — declarative; DEF — definite; DEM — demonstrative; DEP — dependent; DIST.PST — distant past; DU — dual; DUR — durative; ERG — ergative; EVD — evidential; EXCL — exclusive; F — feminine; FKIN — feminine kinship term; FOC — focus; FUT — future; GEN — genitive; HAB — habitual; HYP — hypothetical; ICP — incompletive; INS — instrumental; INV — inverse; IPF — imperfective; IRR — irrealis; ITR — intransitive; LOC — locative; M — masculine; NAR — "narrative case"; NEG — negation; NFIN — non-finite form; NFUT — non-future; NM — non-masculine; NOM — nominative; NPRS — non-present; NPST — non-past; NSG – non-singular; OBJ — object; OBL — oblique; P — patient; PERL — perlative; PFV — perfective; PL — plural; PN — proper name; POSS — possessive; PRF — perfect; PRS — present; PRT — participle; PST — past; PVB — preverb; RDP — reduplication; REAL — realis; REFL — reflexive; SBJ — subject; SG — singular; TAM — tense-aspect-mood marker; TR — transitive.

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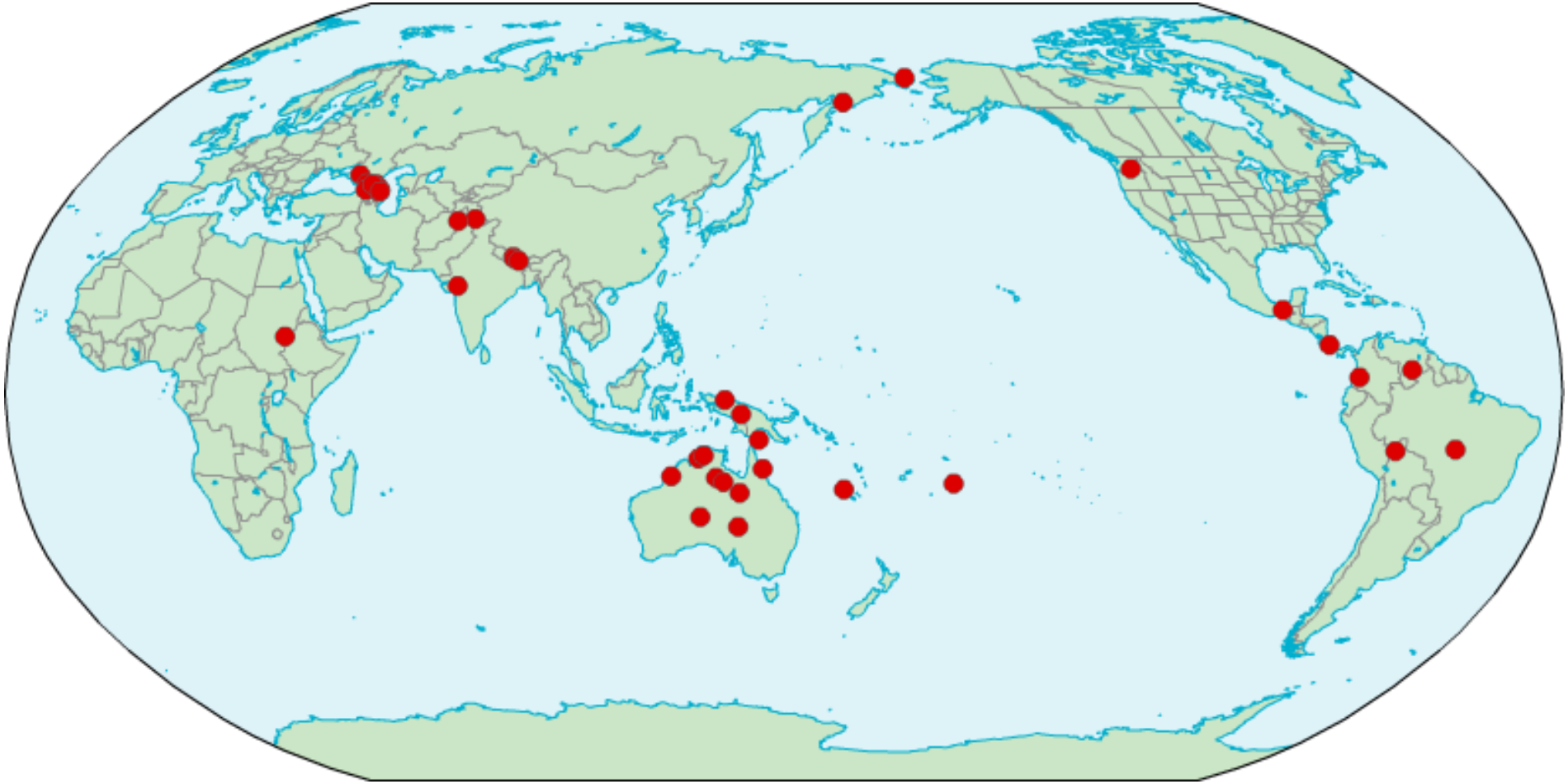
Appendix. The languages of the sample

language name	iso	wals	genetic	area	source	morph. type	no	conditioning	factor
Gaahmg	tbi	igs	Eastern Sudanic	Africa	Stirtz 2011, 2013	tone, affix	2	nominal	pronouns vs. others
Kuku-Yalanji	gvn	kya	Pama-Nyungan > Yalandjic	Australia	Patz 2002	affix	2	pragmatic	potent vs. neutral
Kalkatungu	ktg	kgu	Pama-Nyungan > Galgadungic	Australia	Blake 1979	affix	2	nominal	pronouns + kinship vs. other
Diyari	dif	diy	Pama-Nyungan > Karnic	Australia	Austin 2013	affix	2	nominal	female 3rd pers + proper vs. others
Pitjantjatjara	pjt	pit	Pama-Nyungan > South-West	Australia	Bowe 1990	affix	2	nominal	proper vs. common
Jingulu	jig	dji	West Barkly	Australia	Pensalfini 1997	affix	4	nominal	female kin vs. other female vs. other animate vs. inanimate
Meryam Mir	ulk	mer	Eastern Trans-Fly	Australia	Piper 1989	affix	3	nominal + gram	plural common vs. singular animate vs. other
Warrwa	wwr	wrw	Nyulnyulan	Australia	McGregor 2006	affix	2	pragmatic	potent vs. neutral
Marithiel	mfr	mrh	Daly	Australia	Green 1989	affix	3	pragmatic	3-way distinction
Wambaya	wmb	wam	West Barkly	Australia	Nordlinger 1998	affix	4	nominal + gram	dual vs. kin vs. others
Warai	wrz	wry	Gunwingguan	Australia	Harvey 1986	affix	2	pragmatic	
Adyghe, Temirgoy	ady	ady	North Caucasian > Western > Circassian	Caucasus	fieldwork	affix	3	nominal + gram	demonstratives vs. others + singular vs. plural
Adyghe, Bzhedugh	ady	ady	North Caucasian > Western > Circassian	Caucasus	fieldwork	affix	4	nominal + gram	demonstratives vs. proper names vs. others + singular vs. plural
Kabardian	kbd	kab	North Caucasian > Western > Circassian	Caucasus	fieldwork	affix	2	nominal	demonstratives vs. other
Chechen	che	chc	North Caucasian > Eastern > Nakh	Caucasus	Nichols 1994	affix	2	nominal	proper names + kin terms vs. others
Ingush	inh	ing	North Caucasian > Eastern > Nakh	Caucasus	Nichols 2011	affix	>4	nominal	proper1 vs. proper2 + kin vs. other
Tsova-Tush	bbl	ttu	North Caucasian > Eastern > Nakh	Caucasus	Holisky & Gagua 1994	affix	3	nominal	1+2 person vs. demonstratives + humans vs. other
Khwarshi	khv	khv	North Caucasian > Eastern > Tsezic	Caucasus	Khalilova 2009	affix	2	nominal	pronouns vs. others

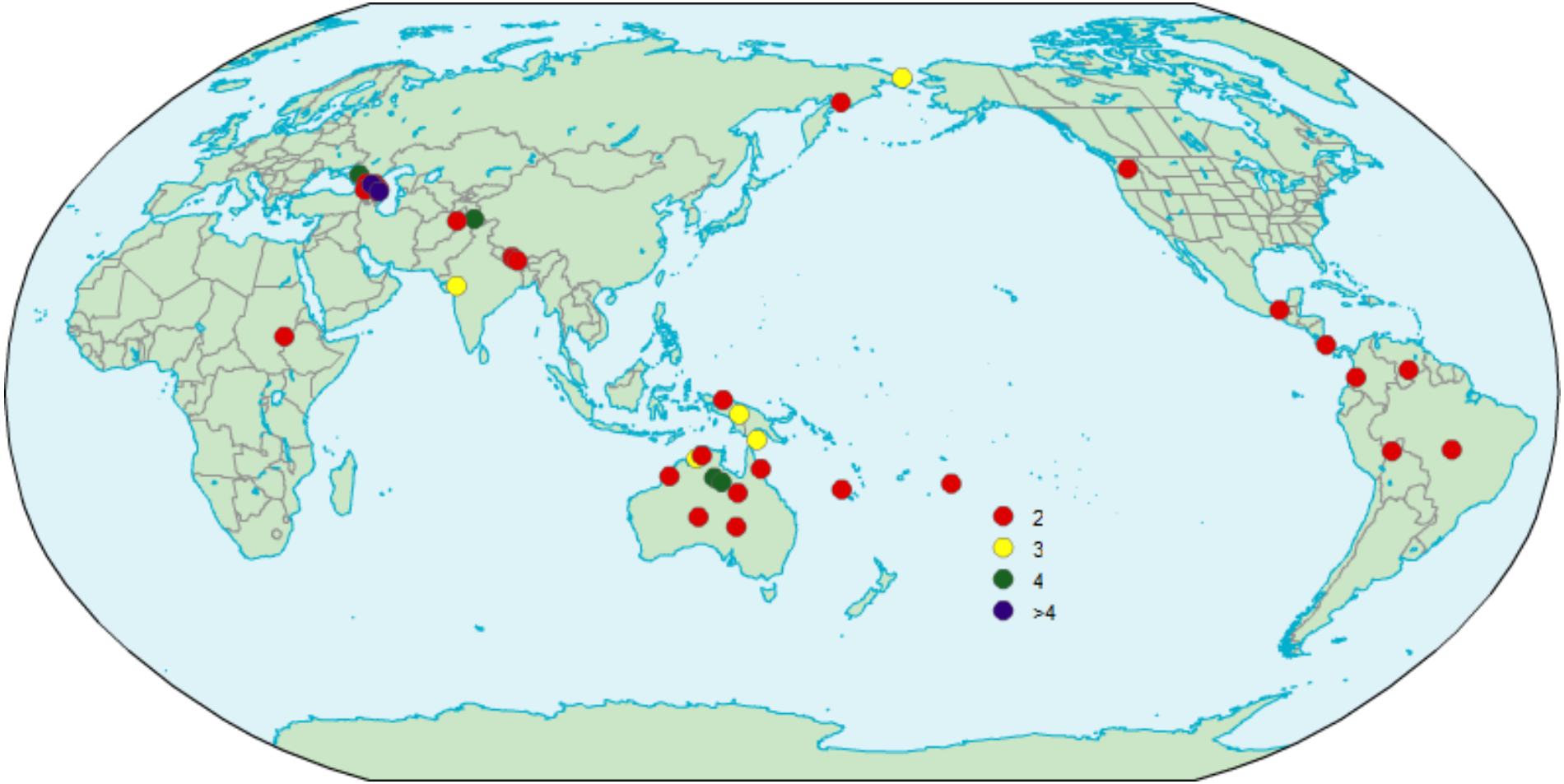
Lezgian	lez	lez	North Caucasian > Eastern > Lezgic	Caucasus	Haspelmath 1993	affix	>4	nominal	(partly) semantically-based inflection classes
Tsakhur	tkr	tsa	North Caucasian > Eastern > Lezgic	Caucasus	Kibrik, Testelets (eds.) 1999	affix	2	nominal	humans vs. non-humans
Avar	ava	ava	North Caucasian > Eastern > Avar-Andic	Caucasus	Alekseev & Ataev 1997	affix	>4	nominal	masculine vs. other
Chirag Dargwa	dar	drg	North Caucasian > Eastern > Dargic	Caucasus	Kibrik 2003	affix	2	nominal	pronouns vs. others
Georgian	kat	geo	Kartvelian	Caucasus	Vogt 1971	affix	2	nominal	demonstratives vs. other
Chukchi	ckt	chk	Chukotko-Kamchatkan	North Asia	Dunn 1999	affix	3	nominal	pronouns vs. proper names vs. common names
Koryak	kpy	kry	Chukotko-Kamchatkan	North Asia	Žukova 1972	affix	2	nominal + gram	proper names + definite human vs. indefinite human + common
Shina Kohistani	plk	sna	Indo-European > Indo-Iranian	South Asia	Schmidt & Kohistani 2008	affix	4	clause + gram + nominal	perfective vs. imperfective + singular vs. plural + masculine vs. feminine
Khewarda Wagdi	wbr	bhi	Indo-European > Indo-Iranian	South Asia	Phillips 2013	affix	3	nominal	1 + 2 person vs. 3 person vs. other
Kati	bsh	ktz	Indo-European > Indo-Iranian	South Asia	Grjunberg 1980	affix	2	nominal	masculine vs. feminine
Tamang	taj	tam	Sino-Tibetan > Tibeto-Burman > Bodish	South Asia	Mazadoun 2003	affix	2	nominal	1sg vs. others
Kathmandu Newar	new	new	Sino-Tibetan > Tibeto-Burman > Himalayan	South Asia	Hargreaves 2003	affix, modification	2	gram	sg vs. pl
Dumi	dus	dmi	Sino-Tibetan > Tibeto-Burman > Himalayan	South Asia	van Driem 1993	affix	2	nominal	sg pronouns vs. other
Yakima	yak	shp	Sahaptian	North America	Jansen 2010	affix	2	clause	person of P
Cabécar	cjp	cab	Chibchan	Meso America	Verhoeven 2013	word	2	clause	affirmative vs. negative
Chiapas Zoque	zoc	zqc	Mixe-Zoquean > Zoquean	Meso America	Faarlund 2012	clitic, affix	2	nominal	1 + 2 person vs. other
Sanuma	xsu	snm	Yanomanan	South America	Borgman 1990	affix, modification	2	nominal	1 + 2 person vs. other; emphatic vs. non-emphatic
Araona	aro	ana	Tacanan	South America	Pitman 1980	affix	2	nominal	pronouns vs. others

Epena Pedee	sja	epe	Chocoan	South America	Harms 1994	affix	2	nominal	sg pronouns vs. other; emphatic vs. non-emphatic
Trumai	tpy	tru	isolate	South America	Guirardello 1999	affix	2	nominal	1sg vs. others
Una	mtg	una	Mek	Oceania	Louwerse 1988	affix	3	nominal	pronouns vs. proper + kin vs. other
Yawa	yva	yaw	West Papuan	Oceania	Jones 1986	word	2	nominal	masculine vs. feminine
Niuean	niu	niu	Austronesian > Oceanic	Oceania	Massam 1996	clitic	2	nominal	pronouns + proper names vs. others
Nelemwa	nee	nel	Austronesian > Oceanic	Oceania	Bril 2002	word	2	nominal	humans vs. non-humans

Map 1. Languages of the sample



Map 2. Number of ergative allomorphs



Map 3. Type of conditioning