Typological variation in grammatical relations

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Grammatical relations:
an update

Introduction

- **‘grammatical relations’**
  (also ‘grammatical function’, ‘syntactic function’, ‘syntactic role’)

  - in principle, can refer to any grammatical dependency relation

  - in practice, denotes the **relations between a clause or a predicate and its arguments** (subject, direct object, and indirect object)

Introduction

- Subject, direct object, and indirect object
  - among the most basic concepts of many models of grammar
  - often regarded, either explicitly or implicitly, as universal
  - fundamental concepts in descriptions of most languages

- *'All languages have rules referring to subject and direct object, which are central to the syntactic organization'* (Chung 1978: 99f.)
- If a linguist finds that the categories of subject and object are not useful or applicable for the description of a language, this decision requires explicit justification (cf. Durie 1985, 1987; Nakayama 2001)

Introduction

Until the early 1970s, surface morphological criteria (case, agreement) and constituent order played a pivotal role in identifying individual GRs

German

subject

a. *Er* *starb.*
he.**NOM** die.PAST.**SG**
‘He died.’

Introduction

- compare the argument marking of intransitive and transitive clauses:

German

a. *Er* *starb.*
he.**NOM** die.PAST.**SG**
‘He died.’

b. *Wir* *sah-en* *ihn* *dort.*
I.**NOM** see.PAST**-PL** he.**ACC** there
‘We saw him there.’

Introduction

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- **nominative case, triggers agreement** > **subject**
- **accusative case, does not trigger agreement** > (direct) **object**

Historical overview

- 1970s: change in the discussion of GRs
- due to an increasing interest in languages with ergative traits and a number of important descriptive accounts:
  - Dixon 1972 on Dyirbal,
  - Comrie 1973, 1979c on Chukchi,
  - Blake 1976 on some Australian languages,
  - Woodbury 1977 on West Greenlandic Eskimo
  - **recently, examples of African languages with ergative traits** (König 2008)
- Problem: morphological criteria do not identify subjects familiar from European languages
- Questions: Do these languages have a subject at all? Which argument is it?

Ergative case marking

Päri (West Nilotic; SW Ethiopia/SE Sudan; Andersen 1988)

a. ùbúr á-túuk‘
Ubur.**NOM** PAST-play
'Ubur played.'

(Intransitive) subject is in the **NOMinative**

Ergative case marking

Päri (West Nilotic; SW Ethiopia/SE Sudan; Andersen 1988)

a.	ùbúr	á-túuk‘	
	Ubur.**NOM**	PAST-play	
	'Ubur played.'		
b.	jòobì	à-kèel	ùbúrr**-ì**.
	buffalo.**NOM**	PAST-shoot	Ubur**-ERG**
	'Ubur shot the buffalo.'		

ERG - **ergative**, also called operative, agent, agentive, instrumental, and transitive-nominative

Ergative case marking

German		**vs.**	**Päri**	
SNOM			**S**NOM	
ANOM	**P**ACC		**A**ERG	**P**NOM

To compare the situation in the two languages, the following notation was introduced:

S = the **SOLE** argument of an intransitive clause

A = the more **AGENT**-like argument of a transitive clause

P = the more **PATIENT**-like argument of a transitive clause

Ergative case marking

German **vs.** **Päri**

SNOM **SNOM**

ANOM **PACC** **AERG** **PNOM**

“The morphology appears to establish the existence of a category which includes subjects of some verbs, and objects, but not subjects of other verbs” (Anderson 1976: 3)

Ergative case marking

German	vs.	Päri
SNOM intr. subject		**SNOM** intr. subject

ANOM tr. subject	**PACC** tr. object	**AERG** ?	**PNOM** ?

Problems:

- why is the German-like subject marked by different cases in Päri? is it legitimate to call it a subject at all? what is the motivation for this?
- or why does the nominative argument have different semantic roles in German and Päri transitive clauses? can we call the nominative arguments subject?

Syntactic tests

- Which argument is the subject?
- extend the inventory of tests beyond morph. marking and word order (Li 1976 and Plank 1979)
  - e.g. **conjunction reduction in English**

He$_i$ shot the buffalo$_k$ and __ fell dead.

How is the silent argument of the second clause interpreted?

Syntactic tests

- Which argument is the subject?
- extend the inventory of tests beyond morph. marking and word order (Li 1976 and Plank 1979)
  - e.g. **conjunction reduction in English** (one of the "subject properties")

He$_i$ shot the buffalo$_k$ and __$_i$ fell dead.

**He$_i$ shot the buffalo$_k$ and __$_k$ fell dead.*

Though pragmatically more natural, the second reading is impossible. Why?

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- extend the inventory of tests beyond morph. marking and word order (Li 1976 and Plank 1979)
  - e.g. **conjunction reduction in English** (one of the "subject properties")

He$_i$ shot the buffalo$_k$ and __$_i$ fell dead.

*****He$_i$ shot the buffalo$_k$ and __$_k$ fell dead.*

Though pragmatically more natural, the second reading is impossible. Why?
Because English has **a syntactic constraint**, such that the silent S and A ('subject') argument of a coordinated clause must be coreferential with the overt S and A argument ('subject') of the first clause

Syntactic tests

- extend the inventory of tests beyond morph. marking and word order (Li 1976 and Plank 1979)
  - e.g. **conjunction reduction in English**
  - The gapped argument (**controllee**) can only be either S or A

S

He$_i$ shot the buffalo$_k$ and __$_i$ fell dead.

A

He$_i$ shot the buffalo$_k$ and __ $_i$ gave it to his wife.

Syntactic tests

- extend the inventory of tests beyond morph. marking and word order (Li 1976 and Plank 1979)
  - e.g. **conjunction reduction in English**
  - The argument of the first clause which determines the reference of the silent argument (**controller**) also can only be either S or A

A

He$_i$ shot the buffalo$_k$ and __$_i$ fell dead.

S

He$_i$ stood up and __$_i$ fell dead.

Syntactic tests

- extend the inventory of tests beyond morph. marking and word order (Li 1976 and Plank 1979)
  - e.g. **conjunction reduction in English**
  - many other constructions traditionally figure as subject tests:

  -*ing* non-finite clauses,
  control constructions with verbs like *‘try’*, *‘forget’, etc.*
  raising constructions with verbs like *‘seem’*

Syntactic tests

- extend the inventory of tests beyond morph. marking and word order (Li 1976 and Plank 1979)
- what about Päri?
- e.g. a subordinate clause construction **with *kú* 'PURPOSIVE'** whose syntactic restrictions are similar to English

	S		**A**		
ʔáan*i*	à-cî	kù	___*i*	kwàl-á	dhòk.
I.NOM	PAST-go	CONJ		steal-1SG	cows

'I went to steal the cows.'

	S		**S**		
ʔáan*i*	à-cî	kù	___*i*	túuk-á.	
I.NOM	PAST-go	CONJ		play-1SG	

'I went to play.'

Grammatical relations and syntactic tests

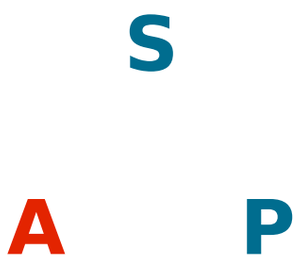
- extend the inventory of tests beyond morph. marking and word order
- One approach: Päri has a subject after all and it can be identified on the basis on purposive coordinate clauses (cf. Anderson 1976)
- in contrast to German, Päri subject is not case-marked consistently, sometimes it is in the nominative, sometimes it is in the ergative
- This approach is based on postulated primacy of syntactic tests over morphological tests

Construction-specific GRs

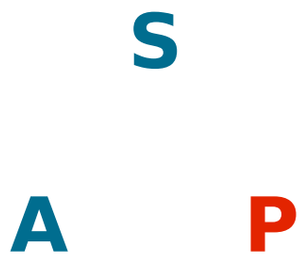
- **morpho-syntactic properties as subject and object tests**
  – a common praxis in the research on GRs,
  however, it causes a range of problems:

  (i) **different morpho-syntactic criteria (=constructions)**
  > different kinds of “subjects” and “objects”

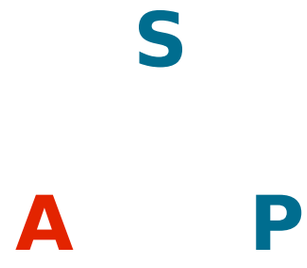
- **case**



- **purposive coord.**



- **criterion X**



- which criterion should be chosen?
- should different criteria be weighted, how?
  (Van Valin & LaPolla 1997; Croft 2001; Hudson 1992; Malchukov et al. 2007)

Language-specific GRs

- **morpho-syntactic properties as subject and object tests**
  – a common praxis in the research on GRs,
  however, it causes a range of problems:

(ii) **other languages > other criteria**
“language specific grammatical relations”
purposive coordination as in Päri, is absent in many languages; other constructions are used there, which in turn are absent in Päri (e.g. relativization site in Dyirbal, switch-reference marking in Imbabura Quechua, infinitive control in German or English, etc.)

purposive construction in Päri ≈ coordination in English

Methodological opportunism

- **‘Methodological opportunism’**:
  using “language-specific criteria when the general criteria do not exist in the language, or when the general criteria give the “wrong” results according to one’s theory” (Croft 2001)
- **inconsistent** and **ad hoc**

➡an unaccepted method of language comparison

Alternatives to methodological opportunism

- **Alternatives?**
  - **consider all morphosyntactic properties** of arguments without prioritizing among them **(“construction-specific grammatical relations”)**
    GRs as uniform categories → GRs as construction-specific categories
    (Comrie 1978b; LaPolla 2006; Van Valin 1981, 1983, 2005; Van Valin and LaPolla 1997; Dixon 1994; Croft 2001; Bickel 2004, 2010b)
  - compare languages only **wrt available common morpho-syntactic properties (language-specific GRs),** e.g.
    - ✶ case marking in German only with case marking in Päri
    - ✶ but **not** coordination in English with purposive clause in Päri

Critic of the construction-specific approach

- subjects are presented as being
  ‘no more than ad hoc clustering of construction-based properties’
- no explanation for *‘an impressive list of unique properties’* displayed by subjects (Falk 2006: 21; also Marantz 1984, Williams 1984)

Critic of the construction-specific approach

- BUT: apart from a number of comprehensive investigations on case and agreement (e.g. in WALS), there are **no large-scale typological surveys** on subject and object properties to begin with
- Only if the clustering of properties can be established as an empirical fact is a theoretical explanation required
  → a precondition for an explanatory theory of GRs (in the traditional sense) is the attested cross-linguistic reality of subjects and objects
- the typology of GRs is a key prerequisite for cross-linguistic investigations on whether traditional GRs are more than just an epiphenomenon of impressionistically identified construction clusters

Goals of the cross-linguistic research on GRs

“[I]t is rather misleading to speak of ergative languages, as opposed to nominative-accusative languages, since ... it is possible for one phenomenon in a language to be controlled on an ergative-absolute basis while another phenomenon in the same language is controlled on a nominative-accusative basis. Thus one should ask rather to what extent a language is ergative-absolute or nominative-accusative, or, more specifically, which constructions in a particular language operate on the one basis and which on the other.” (Comrie 1978b)

Alignment of individual constructions

Alignment

- What is the way to compare GRs across languages?
  ~~**Subject / Object**~~

➡**Alignment** of individual morpho-syntactic properties (“constructions”),
i.e. the grouping of the three argument types S, A, and P by case, agreement, and syntactic constructions

often extended to the alignment of arguments of three-place verbs (P, T, and G are compared)

Major transitive alignment types

- **Accusative case alignment: S=A≠P**

German

a. *Er* *starb.*
he.**NOM** die.PAST.**SG**
‘He died.’

b. *Wir* *sah-en* *ihn* *dort.*
I.**NOM** see.PAST**-PL** he.**ACC** there
‘We saw him there.’

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Päri (West Nilotic; SW Ethiopia/SE Sudan; Andersen 1988)

a. ùbúr á-túuk‘
Ubur.**NOM** PAST-play
'Ubur played.'

b. jòobì à-kèel ùbúrr**-ì**.
buffalo.**NOM** PAST-shoot Ubur**-ERG**
'Ubur shot the buffalo.'

Major transitive alignment types

- **Neutral case alignment: S=A=P**

  English nouns

  S

  a. *The man fell down.*

  A **P**

  b. *The dog has bitten the man.*

Major transitive alignment types

- **Neutral case alignment: S=A=P**

Eton (Bantu, Cameroon)

S

ǀŋgɔn ì-Ltɛ́ L-pà

moon[9] IX-PRESENT INF-shine

‘The moon shines.‘

A **P**

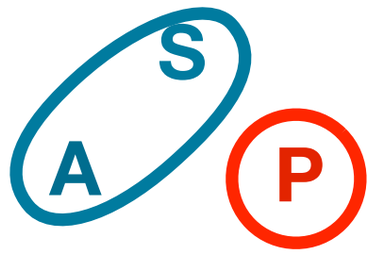
m-úŋá á-h-sɔ́m lə̀-sɔ̀ɛ́

1-child I-PAST-find 5-hiding.place

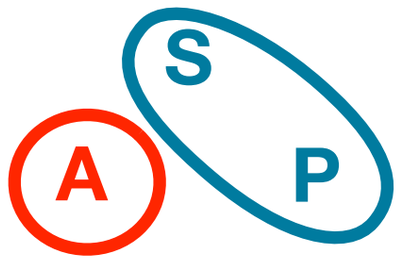
‘The child has found the hiding place.’

Major transitive alignment types

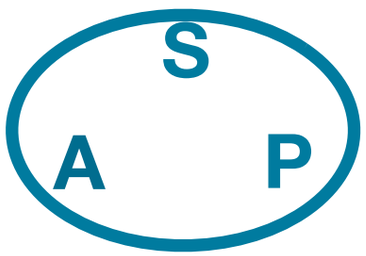
- Alignment: which of S, A, and P are coded/treated identically and which are coded/treated differently:
  - accusative: S=A≠P



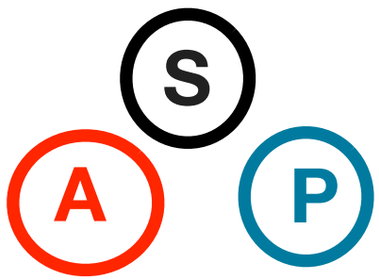
  - ergative: S=P≠A



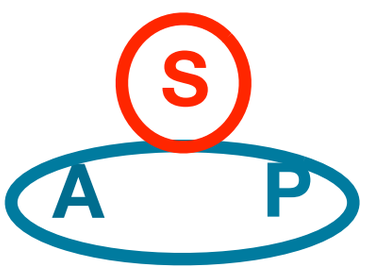
  - neutral: S=A=P



  - tripartite: S≠A≠P



  - horizontal: S≠A=P



Ditransitive alignment types

- What is the way to compare GRs across languages?
  ~~**Subject / Object**~~

➡ **Alignment** of individual morpho-syntactic properties,
i.e. the grouping of the three argument types S, A, and P by case, agreement, and syntactic constructions
What about **“indirect object”?**

- **Dryer (1986)**: patterns of ditransitive argument marking are parallel to the patterns of monotransitive argument marking
  > compare Patient (P) with Goal/Recipient (G) and Theme/ Figure (T)

Ditransitive alignment types

Ditransitive alignment types

- Croft (1990) was the first to extend the spirit of the SAP terms to three-argument clauses
- **English**

			P	
			(“patient”)	
‘The	boy	saw	the book.‘	
			G	**T**
			(“goal”)	**(“theme”)**
‘The	boy	give	his father	the book.’

Major ditransitive alignment types

- Alignment: whether T or G is treated like the monotransitive G
  - indirective alignment: P=T≠G

indirective
(“indirect object”)

directive
(“direct object”)

Major ditransitive alignment types

- Alignment: whether T or G is treated like the monotransitive G

  - indirective alignment: P=T≠G

indirective
(“indirect object”)

directive
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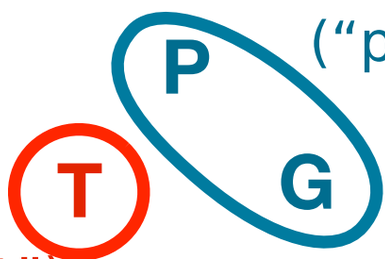
  - secundative alignment: P=G≠T

primative
(“primary object”)



secundative
(“secondary object”)

  - neutral alignment: P=T=G

Ditransitive alignment types

- **Koromfe** (Gur; Bourkina Fasso)
  dɛ̃ɛ̃ mə na Kemde
  yesterday I see Kemde
  ‘Yesterday I saw Kemde.’

  də pa a kɛ̃ɔ̃ hoŋ=nɛ a ɲ̃ãna
  he give DEF woman.SG DEF=for DEF millet.PL
  ‘He gives the millet to the woman.’

P = T ≠G - indirective alignment

Ditransitive alignment types

- **Lango**

  Dákó ò-jwát-ò lócà.
  woman 3SG-hit-3SG man
  ‘The woman hit the man.’

  Lócà ò-mí-ɔ̀ mɔ̀t bɔ̀t=àtín.
  man 3SG-gave-3SG gift to=child
  ‘The man gave the gift to the child.’

Ditransitive alignment types

- **Panyjima** (Pama-Nyungan; Western Australia; Dench 1991)

a. Ngunha parnka ngarna-rta mantu-yu.
that lizard eat-FUT meat-ACC
‘That lizard will eat the meat.’

b. Ngatha yukurru-ku mantu-yu yinya-nha.
1sNOM dog-ACC meat-ACC give-PST
‘I gave the dog meat.’

Ditransitive alignment types

- **Tama** (Eastern Sudanic, Nilo-Saharan; Sudan/Chad)

a. wâ-ŋ ʌ́wí tíí↓ní-ŋá
I-ACC snake.NOM 3.bite-PERF
‘A snake bit me’

b. wâ ʌ́y-↓kúŋ kìtâb nìsí↓níŋó
I.NOM 2PL-ACC book.NOM 1SG.give.PERFECT
'I gave you (Pl) a book’

P = G ≠ T - secundative alignment

Alignment splits

Alignment splits

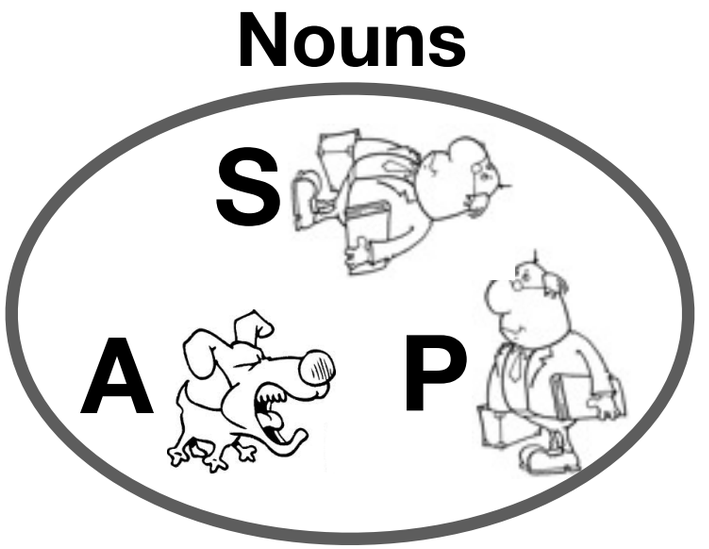
- a further problem – **alignment splits**: different **properties of arguments** or **whole clauses** can affect grammatical relations

e.g. case marking in English

(3a) ***A man*** *died.*

(3b) ***The dog*** *has bitten* ***the man****.*

- **neutral** alignment of nouns



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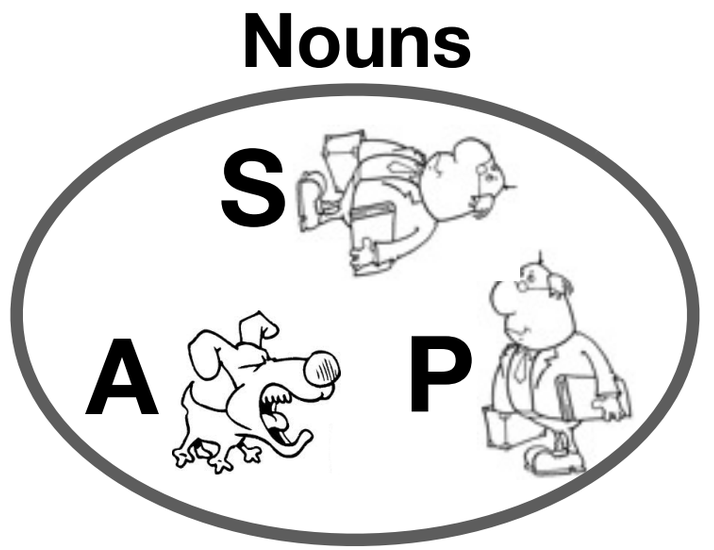
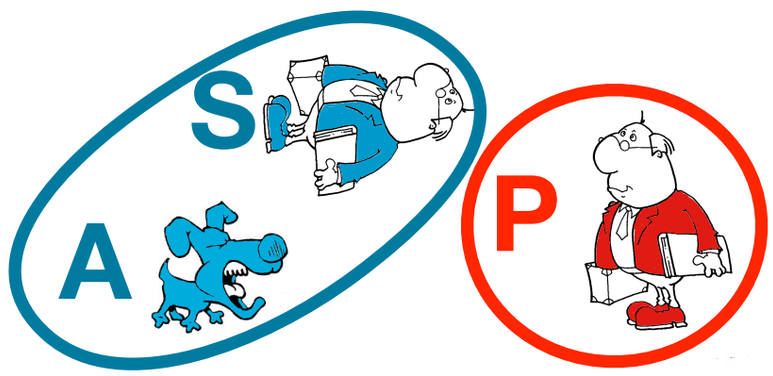


(4a) ***He*** *died.*

(4b) ***It*** *has bitten* ***him****.*

- **accusative** alignment of pronouns*



- also **definiteness, animacy, tense, aspect, mood, clause type, polarity**, etc. can affect alignment and result in splits

Referential properties

- specific common manifestations of splits:

  - split of P marking:
    ‘differential object marking’ (DOM),
    popularized by Bossong (Bossong 1982, 1985, 1998),
    ‘limited accusative marking’ (Mallinson & Blake 1981)

Differential Object Marking in Nilo-Saharan

GERRIT J. DIMMENDAAL

Abstract

In spite of its widespread nature in the Nilo-Saharan phylum, the differential marking of objects as constituents with or without an explicit case marker has gone virtually unnoticed in the typological literature. The present contribution gives a survey of this economy principle in three Nilo-Saharan subgroups, Fur, Mahan, and Eastern Sudanic, where Differential Object Marking extends to

Referential properties

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  - split of P marking:
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    popularized by Bossong (Bossong 1982, 1985, 1998),
    ‘limited accusative marking’ (Mallinson & Blake 1981)

  - split of A marking:
    ‘split-ergativity’,
    or ‘differential subject marking’ (DSM)

Differential object marking

Maba (Nilo-Saharan)

ò:lì	súŋgó-nú**-gù**	mbòkód	t-ír-ì
wind	tree-DEF**-ACC**	break	3SG-AUX:PAST-DECL

‘The wind has destroyed the trees.’

t-íŋíŋ	ḿiĺi:	t-éndé:l-á-ŋ-à
3SG-mother	name	3SG-choose-V-SG-PAST

‘His mother chose a name.’

Differential object marking

Tama (Eastern Sudanic, Nilo-Saharan; Sudan/Chad)

wâ-ŋ	ʌ́wí	tíí↓ní-ŋá
I-ACC	snake.NOM	3.bite-PERF

‘A snake bit me’

wâ	tòòjí	ìllíŋ	↓nɔ́-↓ɔ́nɛ́
I.NOM	children.NOM	small	1SG-see

‘I see small children’

Alignment and marking

Alignment and marking

GR are equivalence sets of **arguments** treated the same way by a construction under certain conditions (following Bickel 2010)

- Alignment of case marking/agreement: which of S, A, and P are coded identically and which are coded differently:
  - accusative alignment: S=A≠P
  - ergative alignment: S=P≠A
  - neutral alignment: S=A=P
  - tripartite alignment: S≠A≠P
  - horizontal alignment: S≠A=P
- **Alignment type is independent of the actual marking of arguments**

Alignment and marking

- **Latvian** (Mathiassen 1997)

a. Putn**-s** lidoja.
bird**-NOM** fly.PST.3
‘The bird was flying.’

b. Bērn**-s** zīmē sun-i.
child**-NOM** draw.PRS.3 dog-ACC
‘The child is drawing a dog.’

Alignment and marking

- **Awa Pit** (Barbacoan; Columbia; Curnow 1997)

a. Demetrio na tɨlawa a-mtuy
   Demetrio TOP tomorrow come-IMPF
   ‘Demetrio is coming tomorrow.’

b. Demetrio na-wa pyan-tɨtɨs.
   Demetrio 1sg-ACC hit-PST
   ‘Demetrio hit me.’

- **Chechen** (Nakh-Daghestanian)

a. Zara vohw-j-uzh-u.
   Zara.ABS down-FEM-fall-PRS
   ‘Zara falls down.’

b. Zara-s wazha-sh b-u’-u.
   Zara-ERG apple.ABS-PL NEUT-eat-PRS
   ‘Zara eats apples.’

Alignment and marking

- **Mojave** (Yuman; California/Arizona, USA, Munro 1976)

  a. ʔava:-č nʸəməsa:-m.
  house-NOM white-TNS
  ‘The house is white.’

  b. hatčoq-č poš taver-m.
  dog-NOM cat.ACC chase-TNS
  ‘The dog chased the cat.’

Referential hierarchy

Referential hierarchy

- Silverstein (1976): on effects of nominal referential properties on case marking and agreement in some Australian lg and Chinook
- Referential hierarchies (Croft 1990; Dixon 1994; Aissen 2003; Siewierska 2004; de Swart 2007; Bickel 2010b)

  a. **Lexical class:** pronoun > noun
  b. **Individuation:** proper noun > common noun
  c. **Person:** 1/2 > 3
  d. **Animacy:** human > non-human animate > inanimate
  e. **Specificity:** specific > non-specific referential > generic / non-referential
  f. **Definiteness:** definite > indefinite
  g. **Number:** sg > pl

- no commonly accepted opinion as to the internal ranking of SAPs

  - 1>2 ranking (Dixon 1994)
  - 1&2 are not ranked (DeLancey 1981; Wierzbicka 1981)

Referential hierarchy

- Combined referential hierarchies (Croft 1990; Dixon 1994; Aissen 2003; Siewierska 2004; de Swart 2007; Bickel 2010b)

  a. 1 > 2 > demonstratives & 3 > proper nouns > human nouns > animate nouns > inanimate nouns (Dixon 1994)

  b. 1&2 (SAP) > 3 > proper noun > human > animate > inanimate (Aissen 1999)

  c. pronoun > name > definite > indefinite > indefinite specific > non-specific (Aissen 2003)

- aka ‘agency’, ‘animacy’, ‘empathy’, ‘egocentricity’, ‘indexability’, ‘ontological salience’, ‘cognitive accessibility’, ‘person’, ‘prominence’, ‘individuation’ or ‘referential’ hierarchy
  (Bickel & 2007; Comrie 1989: 128; Croft 1990: 112ff.; DeLancey 1981; Dixon 1979; Givón 2001; Siewierska 2004; Silverstein 1976; Timberlake 1975)

Interpretations of referential hierarchies

- Two possible interpretations of the effects of referential properties on case and agreement marking

  - Comrie (1978b, 1989): referential hierarchies affect the **distribution of overt case marking**
    if a language exhibits a split in marking:

1&2 (SAP) > 3 > proper > human > animate > inanimate

A: no over marker

P: overt marker

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