

Typology 5

Argument structure and its morphosyntactic representation: nominative/accusative, ergative/absolutive, active/inactive, direct/inverse

1. Introduction/Definitions

Four clearly distinguished levels of language structure:

- semantics (argument structure, thematic roles/semantic roles)
- morphology (case morphology, agreement morphology)
- syntax (syntactic behaviour in constructions such as raising, control, coordinate clauses)
- discourse (topic, focus; cf. the discourse motivation of ergative and nominative systems in a later handout)

On semantics

(on the semantic status of argument structure and argument roles cf. Dowty 1991, Van Valin & LaPolla 1997: 82 – 195):

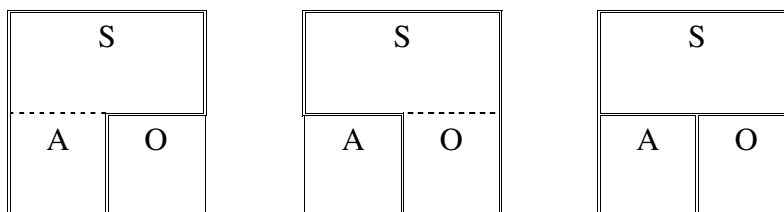
Semantic verb types and semantic roles (Dixon 1994: 7):

(1) SEMANTIC TYPES	Semantic Roles
AFFECT, e.g. <i>hit, cut, burn</i>	Agent, Manip (thing manipulated), Target
GIVING, e.g. <i>give, lend, pay</i>	Donor, Gift, Recipient
SPEAKING, e.g. <i>talk, tell, order</i>	Speaker, Addressee, Message
ATTENTION, e.g. <i>see, hear, watch</i>	Perceiver, Impression

The above semantic roles can be further reduced to three *primitive relations* (Dixon 1994: 6; Dixon & Aikhenvald 1997; on some problems with A, S, O cf. Mithun & Chafe 1999) or **macro roles**:

- (2)
- | | | |
|---|---|---|
| S | — | argument of intransitive verb |
| A | — | actor argument of transitive verb |
| O | — | patient/undergoer argument of transitive verb (other abbreviations: P, U) |

On the morphosyntactic realisation of A, S and O:



NOM/AKK	ERG/ABS	tripartite system
German (3)	Georgian (4)/Dyirbal (5)	Wangkumara (6)

Nominative/Accusative:

S and A are marked the same way (nominative), O is marked differently (accusative):

(3) German:

- a. Der Bauer_{S=NOM} starb.
,The farmer died.‘
- b. Der Bauer_{A=NOM} tötete den Hirsch_{O=ACC}.
,The farmer killed the stag.‘

Ergative/Absolutive:

S and O are marked the same way (absolutive), A is marked differently (ergative):

(4) Georgian (S Caucasian):

- a. Glex-i mok5vda.
farmer-ABS die:PFV:3s
,The farmer_{S=ABS} died.‘
- b. Glex-ma mok5la irem-i.
farmer-ERG kill:PFV:3s stag-ABS
,The farmer_{A=ERG} killed the stag_{O=ABS}.‘

(5) Dyirbal (Australia) (Dixon 1994):

- a. Numa-∅ banaga-^u.
father:ABS -NONFUT
,Father_{S=ABS} came back.‘
- b. yabu-∅ Numa-Ngu bura-n.
mother-ABS father-ERG see-NONFUT
,Father_{A=ERG} saw mother_{O=ABS}.‘

Tripartite system:

Each argument (S, A, O) is marked differently. S = nominative, A = ergative, O = absolutive. This system usually is limited to some subsystems of a language. According to Blake (1994: 126) Wangkumara is the only language with a fully developed tripartite system (data from Breen 1976: 338/337):

(6) Wangkumara (Breen 1976: 338/337):

- a. Karukaru nTMiaguïu yanTMtTMa-ga0a makur-anru.
old.man.NOM he.there walk-PRES stick-INST
,The old man_{S=NOM} walks with a stick.‘
- b. ka+a-ulu kalka-Na tTMitTMi-nTManTMa.

man-ERG hit-PST dog-ABS
,The man_{A=ERG} hit the [female] dog_{O=ABS}.'

2. Types of argument marking

Nominative/Accusative and ergative/absolutive can be expressed as follows:

- case (cf. examples (3) – (6) above)
- particles or adpositions (cf. § 2.1)
- agreement (cf. § 2.2)
- word order (cf. § 2.3)

2.1. Particles or adpositions

(7) Tongan (Austronesian: Polynesian)

- a. intransitive verb: absolutive particle
na'e lea 'a e talavou.
PST speak ABS ART young.man
'The young man_{S=ABS} is speaking.'

b. transitive verb:

na'e ta@mate'i 'a e talavou 'e Tolu.
PST kill ABS ART young.man ERG Tolu
'Tolu_{A=ERG} killed the young man_{O=ABS}.'

2.2. Agreement

In a nominative agreement system the verb agrees with the argument in S or A roles. In the case of object agreement, it agrees with the O argument which is either marked by a different set of agreement markers or by the same (or maybe a similar) set of markers which occurs in different slots of the verb paradigm.

2.2.1. Abkhaz (NW Caucasian): Ergative agreement system without case marking:

The morphological structure of the verb in Abkhaz:

(8) I-II+ PRÄV- III- KAUS- **WURZEL**- TAM- FIN

|<—————>|

preradical slots

|<——>|

postradical slots

The preradical slots I, II and III are filled by the following agreement affixes (I only present the singular forms):

	I	II	III
1. SG	s(´)	s(´)	s/z(´)
2. SG	masc. w(´)	w(´)	w(´)
	fem. b(´)	b(´)	b(´)
3. SG	human d(´)	masc. y(´)	y(´)
	d(´)	fem. l(´)	l(´)
	non-human y(´)	a//ø	(n)a

The ergative pattern is reflected by the way in which the slots are associated with S, A and O:

Slot I: the agreement affix refers to S or O
 Slot III: the agreement affix refers to A

(9) a. Intransitive verb:

d´-ca-yt"

I.3s[-h]-go-AOR

‚S/He_{S=I} went.‘

b. transitive verb:

d´-z-ba-yt'.

I.3s[-h]-III.1s-see-AOR

‚I_{A=III} saw her/him_{O=I}.‘

(10) a-là (ø-)ps´-yt'.

DET-dog I.3s[-h]-die-PRES:FIN

‚The dog died‘

(11) sa-rà a-là (ø-)z-ba-yt'.

I DET-dog I.3s[-h]-III.1s-see-PRES:FIN

‚I saw the dog.‘

Addendum: The affixes in slot II agree with the benefactive argument of ditransitive verbs and with a large number of non-arguments whose agreement affix is further combined with a role-indicating preverb:

(12) sa-rà a-là à-fa-t fi" (ø-) à-s-ta-yt'.

I ART-dog ART-food I.3s[-h]-II.3s[-h]-III.1s-give-AOR:FIN

‚I_{A=III} give food_{O=I} to the dog_{DAT=II}.‘

(13) Axra ø-y´+z´-ÿ-q'a-s-c´-yt'.

Axra I.3s[-h]-II.3sm+BENEF-PRÄV-III.1s-do-AOR:FIN

‚I_{A=III} did it_{O=I} for Axra_{BENEF}.‘

(14) à-c&'k fi´n s´-y´+c-ce-yt'.

ART-boy I.1s-II.3sm+COMIT -go-AOR:FIN

‚I_{S=I} went with the boy_{DAT=II}.‘

2.2.2. Basque: Ergative agreement combined with ergative case marking

Basque verb morphology is expressed at the auxiliary. The transitive auxiliary which follows the verbal root in a nonfinite form consists of the following components:

(15)	Patient	-Tense	-PL.of.patient	-AUX	-PL.for.2.PL	-Actor
1s	n-	-a		-u		-t
2s	h-	-a		-u		-k/-n
3s	d-	-∅		-u		-∅
1p	g-	-a	-it	-u		-gu
2s (pol)	z-	-a	-it	-u		-zu
2p	z-	-a-	-it	-u	-zte	-zue
3p	d-	-∅	-it	-u		-te

Some explanations:

1. Tense is only expressed by **-a** if there is a 1st and 2nd patient (sg and pl).
2. The form in **-it-** is used if the patient is a plural.
3. The form in **-zte-** only occurs with the 2nd plural. This has to do with the fact that the older form of the 2nd plural is understood as a polite form of the 2nd singular in modern Basque. For that reason, the 2nd person plural needs an extra plural marker. In the case of 3p→2p the agent marker of 3p (-te) can be omitted: **ikusten zaituzte(te)** 'they see you (PL)'.
 (Note: The original text incorrectly states 'they see you (PL)' for the 3p→2p case. The correct interpretation is 'they see you (PL)' where 'they' is the 3rd person plural agent and 'you' is the 2nd person plural patient.)

Some examples:

- (16) **ni-k** gizon-a ikusten d-u-t.
 I-ERG man-DEF:SG:ABS see ABS:3-AUX-ERG:1s
 'I_{A=ERG} see the man_{O=ABS}'
- (17) **ni-k** gizon-a-k ikusten d-it-u-t.
 I-ERG man-DEF-PL:ABS see ABS:3-ABS:PL-AUX-ERG:1s
 'I_{A=ERG} see the men_{O=ABS}'
- (18) **gizon-a-k** ni ikusten n-a-u-∅.
 man-DEF:SG-ERG I:ABS see ABS:1s-PRES-AUX-ERG:3s
 ',The man_{A=ERG} sees me_{O=ABS}'
- (19) **gizon-e-k** ni ikusten n-a-u-te.
 man-DEF:PL-ERG I:ABS see ABS:1s-PRES-AUX-ERG:3p
 ',The men_{A=ERG} see me_{O=ABS}'

2.2.3. Georgian: Ergative case-marking plus nominative-agreement system:

(20) Georgian:

- a. Actor = 3s, Patient = 3p:
Glex-ma mo-k 5l-a irem-eb-i.
 Farmer-ERG PREV-kill-PFV:3s stag-PL-ABS
 ,The farmer kills the stag.‘
- b. Actor = 3p, Patient = 3s:
Glex-eb-ma mo-k 5l-es irem-i.
 Farmer-PL-ERG PREV-kill-AOR:3p stag-ABS
 ,The farmers killed the stag.‘

2.2.4. Akhwakh (Kibrik 1985: 309 – 310)

In Akhwakh, the suffix *-do* agrees with the nominal class 1, the suffix *-de* with the nominal classes 2 and 3. In transitive verbs, agreement is split into two parts. Person agreement with the ERG argument, class agreement with the ABS argument:

- (21) a. dene j-eq'a-de
 I.2.NOMCL2-came-1SG/CL2/3
 ,I (fem) came.‘
- b. dede was&a í‘are-do.
 I.2.ERG boy.1.ABS beat-1SG/CL1
 ,I beat the boy.‘
- c. jas&oía dene hariga-do.
 girl.2.DAT I.1.ABS saw-1SG/CL1
 ,the girl saw me (masc).‘

2.3. Word order

Ergative word order: SV/OVA VS/AVO
 Nominative word order: SV/AVO VS/OVA

Languages in which ergativity is marked exclusively by word order do not seem to exist. In Pári (West Nilotic), ergative word order is combined with case marking:

SV/OVA: Pári (West-Nilotisch):

- (22) a. intransitive verb, S argument is preverbal and in the absolutive:
 ùbúr á-túuk`
 Ubur COMPL-play
 'Ubur_S is playing.'
- b. transitive verb: O in preverbal position, A in postzverbal position plus ERG marking:
 jòobi á-kèel ùbúrr-ì.
 buffalo COMPL-shoot Ubur-ERG
 'Ubur_A is shooting the buffalo_O.'

3. Split systems

Most languages are not consistently ergative, that is, the ergative system coexists with the nominative system. There are three types of splits:

1. TAM split: based on the TAM form of the verb.
2. Verb split: based on the semantic properties of the verb
3. NP split: based on the semantic properties of the NP

3.1. TAM-split

In Georgian, ergative/absolutive marking is limited to transitive verbs marked by affixes from the aorist group (perfective). In the imperfective (present group), the nominative/accusative system is used:

(23) Georgian, the verb is in the aorist: ERG/ABS

a. c&em-i kmar-i mo-k5vd-a.
my-ABS husband-ABS PREV-die-AOR:3s
'My husband_{S=ABS} died.'

b. c&em-ma kmar-ma mo-k5l-a irem-i.
my-ERG husband-ERG **PREV-kill**-AOR:3s stag-ABS
'My husband_{A=ERG} killed the stag_{O=ABS}.'

(24) Georgian: the verb is in the present: NOM/ACC

a. c&em-i kmar-i k5vd-eb-a.
my-NOM husband-NOM die-INTR-PRES:3s
'My husband_S dies.'

b. c&em-i kmar-i k5l-av-s irem-s.
my-NOM husband-NOM kill-VSuff-PRES:3s stag-ACC
'My husband_{A=NOM} kills the stag_{O=AKK}.'

3.2. Verb-split

Verbs differ with regard to the degree of their semantic transitivity. This can be reflected by the fact that ERG/ABS marking or NOM/ACC marking occurs only with verbs of higher transitivity. Cf. Tsunoda's (1981) *Effectiveness Condition*.

Type	1	2	3	4	5	6
Meaning	direct effect	perception	pursuit	knowledge	feeling	possession
Examples	kill, break hit, shoot	see, look hear, listen, smell	search, wait	know, understand, remember, forget	love, like, want, need	possess

increasing effectiveness

Avar (NE Caucasian) is a nice illustration to the relevance of effectiveness:

Verb class 1: **kill**

- (25) c&anaqan-as: bac" caw-ana.
 hunter-ERG wolf:ABS kill-PST
 'The hunter killed the wolf.'

Verb class 2: **see**

- (26) íns:u-da z&indargo w-as w-ix-ana.
 father-LOC his.own MASC-son MASC-see-PST
 'The father saw his son.'

Verb class 3: **search**, **wait**

(with ERG/ABS = "search"; with ABS/APUDESSIVE = "wait")

- (27) c&i íimaq valáh-ula.
 man:ABS child-APUD wait-PRES
 'The man is waiting for the child.'

Verb class 4: **know**, **understand**, **forget**: LOC/ABS.

Verb class 5: **love/desire**

- (28) di-je j-as j-ol"-ula.
 I-DAT FEM-girl:ABS FEM-love-PRES
 'I love the girl.'

Verb class 6: **have**, **own**

- (29) íns:u-l j-ac j-ígo.
 father-GEN FEM-girl/daughter:ABS FEM-be
 'Father has a daughter.'

3.3. NP-split

The semantic properties of a noun phrase can decide its morphosyntactic behaviour. The morphosyntactic behaviour of arguments depends on the animacy hierarchy (Silverstein 1976):

- (30) Animacy hierarchy (Croft 1990: 127)

Person: first/second < third
NP type: pronoun < proper name < common noun
Animacy: human < animate < inanimate
Definiteness: definite < referential < nonreferential (nonspecific)

- (31) 1/2 < 3 < proper names < [+human] [-human/+animate] < [-human/-animate]

The lower the position in the animacy hierarchy the more likely is ergative marking. In Georgian, pronouns of the 1st and 2nd person are unmarked. Only 3rd person pronoun and all the nouns and proper names have ergative/absolutive marking in the aorist:

- (32) Georgian: 3rd person pronoun:

a. **Is** i-t5ir-a

s/he:ABS MV-cry-AOR:3s
,S/He_s cried.'

b. **Man** da-c5er-a c5eril-i.
s/he:ERG PREV-write -AOR:3s letter-ABS
,S/He_A wrote a letter_O.'

(33) Georgian: 3rd person pronoun:

a. **s&en** i-t5ir-e.
2s MV-cry -AOR:2s
,You_s cried.'

b. **s&en** da-c5er-e c5eril-i.
2s PREV-write-AOR:2s letter-ABS
'You_A wrote a letter_O.'

In Kalaw Lagaw Ya (**Problem 2**), we find the following splits:

2nd person singular: Three different case markers for S, A, O:

(34) a. **Ngi** pathiz.
2s go:SG
,You went.' (ex. (1))

b. **ngitha** burum mathaman.
2s pig hit:SG
,You hit the pig.' (ex. (2))

c. garkoez-in **ngin** mathaman.
man-ERG 2s hit:SG
,The man hit you.' (ex. (3))

1st person plural: no case marking at all: S = A = O

(34) a. **Ngoey** pathemin.
we go:PL
,We went.' (ex. (4))

b. **Ngoey** burum-al mathamoeyn.
we pig-PL hit:PL
,We hit the pigs.' (ex. (5))

c. Garkoez-in **ngoey** mathamoeyn.
man-ERG we hit:PL
,The man hit us.' (ex. (6))

Proper names: S = A = NOM, O = ACC:

(35) a. **Kala** pathiz.
Kala:NOM go:SG
,Kala went.' [Kala is a proper name] (ex. (11))

b. **Kala** burum mathaman.
Kala:NOM pig:ABS hit:SG

,Kala hit the pig.' (ex. (12))

- c. Garkoez-in **Kala-n** mathaman.
 man-ERG Kala-ACC hit:SG
 ,The man hit Kala.' (ex. (13))

Nouns: S = O = ABS, A = ERG:

- (36) a. **Garkaz** pathiz.
 man:ABS go:SG
 ,The man went.' (ex. (8))

- b. **Garkoez-in** ngoey mathamoeyn.
 man-ERG we hit:PL
 ,The man hit us.' (ex. (6))

- c. ngitha **garkaz** mathaman.
 2s man:ABS hit:SG
 ,You hit the man.' (ex. (10))

4. Morphologic vs. syntactic ergativity

In the majority of the languages of the world, ergativity is only of morphologic nature (case marking, agreement), that is, ergativity has no consequences for syntax. In some languages, ergativity also matters for syntax. The most thorough ergative language is Dyirbal (Australia, Dixon 1972). In this language, all the syntactic processes (the exception being subject marking with imperatives) are based on the ergative pattern.

Possible processes:

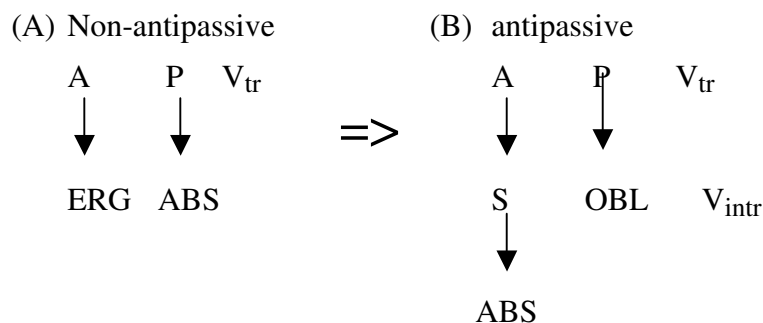
- Coordination and \emptyset arguments
- Raising
- Relative-clause formation
- Quantifier floating
- Reflexivisation

4.1. Coordination and \emptyset arguments

Point of departure: A transitive event (A and O) and an intransitive event (S) are coordinated:

- I. Intransitive state of affairs:
 a. Father_S returned.
 b. mother_S returned
- II. Transitive state of affairs:
 a. Mother_A saw father_O.
 b. Father_A saw mother_O.

Dyirbal needs a similar diathesis in order to produce the combinations (Ia)/(IIb) and (Ib)/(IIa) that are possible without diathesis in English (cf. 37)). This diathesis, which is a mirror image of the situation in English), is called **antipassive**. In the antipassive, the A argument gets absolutive marking and thus becomes part of the pivot, whereas the O-argument is moved to the periphery and gets oblique case marking. The verb becomes intransitive.



(37a) from English can thus been translated into Dyirbal as follows:

- (42) Numa banaga-n^yu bural-**Na**-n^yu yabu-gu.
 fatherABS return-N.FUT see-ANTIPASS-N.FUT mother-DAT
 'Vater kam zurück und sah Mutter.'

The absolutive pivot {S,O} in Dyirbal does not depend on case marking. Dyirbal has an NP split, that is, 1st and 2nd person follow the nominative/accusative pattern (cf. **problem 3**). Nevertheless, ist syntax is based on {S,O}:

(43) Dyirbal: coreference within {S,O}:

- Nana banaga-n^yu n^yurra bura-n.
 we:NOM come.back-NONFUT 2p:NOM see-NONFUT
 'We_s came back and you saw us_o.'

(44) Dyirbal: coreference outside of {S,O}: antipassive:

- Nana banaga-n^yu bural-**Na**-n^yu n^yurra-ngu.
 we come.back-NONFUT see-ANTIP-NONFUT 2p-DAT
 'We_s came back and we_A saw you.'

Languages which are only morphologically ergative such as **Georgian** only have ergative case marking, their pivot is {S,A}:

(45) Georgian [Ia and IIb] (cf. (37a)):

- k5ac-i da-brun-d-a da da-i-nax-a kal-i.
 man-ABS PREV-return -MV-AOR:3s and PREV-SV-see-AOR:3s woman-ABS
 ,The man_s returned and \emptyset_A saw the woman_o.'
 |—————▶

(46) Georgian [Ib and IIa] (cf. (37b)):

- kal-i da-brun-d-a da da-i-nax-a k5ac-i.
 woman-ABS PREV-return-MV-AOR:3s and PREV-SV-see-AOR:3s man-ABS

,The woman_S returned and \emptyset_A saw the man_O.‘
 |—————▶|

4.2. Relative clause formation

In Dyirbal, the relative clause is marked on the verb which gets a relative suffix instead of a tense suffix. Depending on the case marking of the matrix clause, the relative suffix can occur in the following forms:

Absolutive: **-Nu**
 Ergative: **-Nuru**
 Instrumental: **-Nuru**
 Dative: **-Nugu**
 Locative: **-Nura**

The relative clause as a whole can occur in front or after the head noun. However, for a relative clause to be grammatical, the head noun must be in the absolutive. If the head noun is in the role of S or O in the relative clause, there is no problem. If it is in another semantic role, an antipassive form must be used which moves the semantic role to be relativised into the {S,O} pivot:

- (47) The head noun is S in the relative clause => no antipassive!
 Numa-Ngu **yabu- \emptyset** [duNgara-Nu- \emptyset] bu r 5a-n.
 father-ERG mother-ABS cry-REL-ABS see-NONFUT
 ,Father saw mother [who cried]_{REL}.‘
- (48) The head noun is O in the relative clause => no antipassive!
Numa- \emptyset [yabu-Ngu bu r 5a-Nu- \emptyset] duNgara-n y u.
 father-ABS mother-ERG see-REL-ABS cry-NONFUT
 'Father [whom mother saw]_{REL} cried.‘
- (49) The head noun is A in the relative clause => antipassive!
Numa- \emptyset [bu r 5a-**Na**-Nu- \emptyset yabu-gu] duNgara-n y u.
 father-ABS see-ANTIP-REL-ABS mother-DAT cry-NONFUT
 'Father [who saw mother]_{REL} cried.‘
- (50) The head noun is an instrumental in the relative clause => antipassive!
 Nad y a bala yugu- \emptyset [baNggul ya \ll a-Ngu bagul dugumbil-gu
 I ART:ABS stick-ABS ART:ERG man-ERG ART:DAT woman-DAT
 balgal-**ma**-Nu- \emptyset] n y iman.
 hit-ANTIP-REL-ABS take-NONFUT
 'I took the stick [with which the man hit the woman]_{REL}.‘

4.3. Markedness of pivot choice

From what we have seen in §§ 4.1 and 4.2, syntactically nominative and syntactically ergative languages follow two different hierarchies of pivot choice:

- (51) a. Hierarchy of markedness of pivot choice: syntactically accusative languages
 A > O > others
- b. Hierarchy of markedness of pivot choice: syntactically ergative languages
 O > A > others

4.4. Final remark

English and Dyirbal have one thing in common – their pivots are consistent, that is, in each construction of these languages we find the same pivot: {S,A} in English, {S,O} in Dyirbal. However, this is not necessarily the case. There are languages in which different constructions have different pivots.

Jacaltec (Mayan) is such a language (for more information cf. Craig 1977, Van Valin & LaPolla 1997: 285).

5. Active/Inactive systems

For the full discussion of possible systems of morphosyntactic argument marking, the S argument needs to be split up into two roles depending on the degree of control S has over the predicate:

- (52) S_a — the argument has control over the predicate
 S_o — the argument has no control over the predicate

S _a	S _o
A	O

active/inactive

There are two types of active/inactive languages. In one type, each verb is lexically determined as [active] or [inactive]. Dixon (1994: 70 - 78) describes this type under the term of *Split-S systems*. In the second type, intransitive verbs can take either the markers from the S_a/A set or from the S_o/O set, depending on the degree of control of the S argument. This type is called *Fluid-S systems* by Dixon (1994: 78 – 83). I shall briefly discuss **Aceh** (Austronesian: West-Indonesian; Sumatra) which has a Fluid-S system with some 30 verbal stems (another language of the Fluid-S type is Tsova-Tush/Batsdbi, NE Caucasian; Holisky 1988).

Aceh (Durie 1985: 57 – 71):

- (53) lexically determined intransitive verbs with A-marking:
cruep 'lie on stomach' *ingat* 'think of, remember' (from sitting or lying')

<i>batôk</i> 'cough'	<i>dông</i> 'stand'
<i>kira</i> 'think'	<i>êk</i> 'go up'
<i>chên</i> 'love, feel sympathy for'	<i>êh</i> 'lie down to rest or sleep'
<i>beudöh</i> 'get up'	<i>khêm</i> 'laugh, smile'
<i>muntah</i> 'vomit'	<i>marit</i> 'talk'

(54) lexically determined intransitive verbs with O-marking:

<i>jeuet</i> 'become'	<i>rhët</i> 'fall'
<i>deungki</i> 'envy'	<i>beukah</i> 'gebrochen'
<i>beuhë</i> 'brave'	<i>brôk</i> 'verfault'
<i>gli</i> 'ticklish'	<i>beureuhi</i> 'wünschen'
<i>rayeuk</i> 'big'	<i>seunang</i> 'glücklich'

(55) Verbs which can occur with A and O marking:

<i>cinta</i> 'love'	<i>teuka</i> 'arrive'
<i>luwat</i> 'disgusted'	<i>susah</i> 'unhappy'
<i>syök</i> 'suspect'	<i>teuka</i> 'arrive'
<i>jeuet</i> 'be able'	<i>saba</i> 'be patient'
<i>mulayi</i> 'begin'	<i>galak</i> 'like'

There are some 30 Fluid-S verbs. If a person affix has agentive function, that is, the S argument has control over the action, it is prefixed to the verb stem. If it has no control over the action, that is, if it is in the O function, it is suffixed to the verb stem:

(56) a. *gopnyan hana=inseueh=geuh* *keu=lôn.*
 he NEG.COP-feel.sympathy -3sODAT-1s
 'He has no sympathy with me.'

b. *gopnyan hana=geu=inseueh* *keu=lôn.*
 he NEG.KOP-3sA-feel.sympathy DAT=1s
 'He refuses to feel sympathy with me.'

(57) a. *gopnyan galak=geuh* that.
 He happy-3sO very
 'He is very happy.' (Durie 1985: 56)

b. *gopnyan galak=geuh* that *keu=lôn.*
 he happy=3sO very DAT-1s
 'He likes me very much.' (Durie 1985: 56)

c. *gata bek* *ta=galak* *keu=dara=nyan.*
 2sNEG:Q 2sA-happy DAT-girl-that
 'Don't you like this girl?' [The addressee has the choice to like the girl or not.]
 (Durie 1985: 57)

(58) *rila* *ji=matê.*
 Be.ready 3sA-die
 'He was ready to die.' (Durie 1985: 57)

6. Is there a subject/pivot in all the languages of the world?

If the existence of a syntactic category such as subject or pivot depends on the neutralization of the macro roles S, A and O one may ask whether one needs to assume the existence of subject/pivot for all the languages of the world. If processes such as coordination, raising, relative clause formation, quantifier floating etc. can be described in terms of semantic roles alone a syntactic category in the sense of subject/pivot is not needed. Aceh (Austronesian, Sumatra) seems to be such a language (Durie 1985, 1987; Van Valin & LaPolla 1997):

Agreement can always be described in terms of S_i/A and S_j/O

Transitive:

- (59) a. (Gopnyan) **geu**-mat lôn.
3s 3sA-hold 1s
'S/He holds me.'
- b. (Lôn) **lôn**-mat gopnyan.
1s 1sA-hold 3s
'I hold him.'
- (60) a. (Gopnyan) **geu**-jak. a'.*gopnyan jak(-geuh).
S/he 3sA-go s/he go-3sO
'S/He goes.' 'S/He goes.'
- b. (Lôn) **lôn**-jak. b'.*lôn jak-lôn.
1s 1sA-go I go-1sO
'I go.' 'I go.'
- (61) a. Gopnyan rhêt(-**geuh**). a'.*Gopnyan **geu**-rhêt.
3s fall-3sO 3s 3sA-fall
'S/He falls.' 'S/He falls.'
- b. Lôn rhêt(-lôn). b'.*Lôn **lôn**-rhêt.
1s fall-1sO 1s 1sA-fall
'I fall.' 'Ich fall.'

Clause combining and the dropping of coreferent arguments

The argument that can be dropped is always A irrespective of whether the superordinated controller is A or O:

- (62) a. Gopnyan geu-tém (***geu**-)jak.
3s 3sA-want (3sA-)go
'He wants to go.'
- b. Geu-tém (***geu**-)taguen bu.
3sA-want (3sA-)cook rice
'S/He wants to cook rice.'
- c. *Gopnyan geu-tém rhêt.
3s 3sA-wollen fall
'S/He wants to fall.'

- (63) a. Geu-yue-neuh (***neu-**)jak keunoe.
3sA-order -2sO (2sA-)go here
'S/He ordered you to go there.'
- b. Geu-yue lôn (***lôn-**)peugöt kuwéh.
3sA-order 1s(1sA-)make cake
'S/He ordered me to make a cake.'
- c. Lôn-yue piyôh-geuh.
1sA-order finish-3sO
,I ordered him to come to an end.'

7. Direct/Inverse systems

Direct/inverse systems are based on the animacy hierarchy (cf. (30) and (31)). If in a monotransitive predicate the direction of the action goes from an entity higher in this hierarchy to an entity lower in this hierarchy, we get direct marking. Otherwise, if the action goes from a lower to a higher argument we get inverse marking. Languages with direct/inverse marking: Algonkin, Navaho, Tangutic (Tibeto-Burman), Chukchi (Comrie 1980).

Navaho (Athapaskisch) (Comrie 1981: 186)

- (64) a. At"ééd nímasi **yi-**dí'íid.
girl potato DIR-burn:PST
'The girl_[animate] burnt the potato_[inanimate].'
- b. At"ééd nímasi **bi-**dí'íid.
girl potato INV-burn:PST
,The potato_[inanimate] burnt the girl_[animate].'
- (65) a. hastiin ᵐ̂<4 ᵐ̂<4 " **yi-**ztaᵐ̂.
man horse DIR-kick
'The man_[animate] kicked the horse_[inanimate].'
- b. hastiin ᵐ̂<4 ᵐ̂<4 " **bi-**ztaᵐ̂.
man horse INV-kick
'The horse_[inanimate] kicked the man_[animate].'

Jyarong (Tibeto-Burman; Ebert 1987)

(66) direct:

- a. Na m' nasNo-N.
I he scold-1
'I scold him.'
- b. Na no ta-nasNo-n.
I 2s2-schelten-2
'I scold you.'

(67) inverse:

- a. m' k' Na **u-**nasNo-N.

he ERG I INV-scold -1
'He scolds me.'

b.m´ k´ no t´-u-nasNo-n.
he ERG 2s 2-INV-scold-2
'He scolds you.'

In Jyarung, ergative marking only shows up with inverse patterns. The only exception is 3 → 3:

(68) m´ k´ m´ nasNo-u.
he ERG he scold-3
'He scolds him.'

Cree (Problem 4):

Cree verbal paradigms have the following structure:

(69) (PERS)-root-DIR/INV-(PERS)-(PERS)

The person markers on the verb look as follows:

ni-	1 (singular, if not combined with -naan)
ki-	2 (singular, if not combined with -waaw or -naw)
-naan	1p
-naw	1pi (1 and 2)
-waaw	2p
-ak	3p
-n	1s (only in combination with 1s → 2s and 2s → 1s)
-naa	1s (only in combination with 1s → 2p and 2p → 1s)

There are two different systems of direct/inverse marking in Cree:

- | |
|---|
| 1. forms including a 3 rd person: |
| direct: -aa(w)- |
| inverse: -ik(w/o)- |
| 2. forms with 1 st and 2 nd person (speech act participants): |
| direct: -i- |
| inverse: -iti- |

The direct form in **-i-** is used for all the cases in which the action goes from 2 → 1:

- 2s → 1s: (21) **ki-waapam-i-n** 'you(sg) see me'
 2 → 1p: (22) **ki-waapam-i-naan** 'you (sg/pl) see us [excl]'
 2p → 1s: (23) **ki-waapam-i-naa-waaw** 'you (pl) see me'

The form in **-iti-** is used for all the situations of the type 1 → 2:

- 1s → 2s: (24) **ki-waapam-iti-n** 'I see you (sg)'
 1p → 2: (25) **ki-waapam-iti-naan** 'we [excl] see you (sg/pl)'
 1s → 2p: (26) **ki-waapam-iti-naaw-aaw** 'we see you (pl)'

Since the more marked form in **-iti-** is used for 1 → 2 (and for some other reasons), the animacy hierarchy in Cree is 2 < 1. This change in hierarchy between 1st and 2nd person is relatively frequent. Thus, we always have to reckon with an animacy hierarchy of the following type, which characteristic of Algonkin languages:

(70) 2 > 1 > 3

Analysis of the rest of the verbal forms in **problem 4**:

- (1) **ni-waapam-aaw** 'ich see him'
- (2) **ki-waapam-aaw** 'you (sg) see him'
- (3) **ni-waapam-aa-naan** 'we [excl] see him'
- (4) **ki-waapam-aa-naw** 'we [incl] see him'
- (5) **ki-waapam-aa-waaw** 'you (pl) see him'
- (6) **ni-waapam-aaw-ak** 'I see them'
- (7) **ki-waapam-aaw-ak** 'you (sg) see them'
- (8) **ni-waapam-aa-naan-ak** 'we [incl] see them'
- (9) **ki-waapam-aa-naw-ak** 'we [excl] see them'
- (10) **ki-waapam-aa-waaw-ak** 'you (pl) see them'
- (11) **ni-waapam-ik** 'he sees me'
- (12) **ki-waapam-ik** 'he sees you (sg)'
- (13) **ni-waapam-iko-naan** 'he sees us [excl]'
- (14) **ni-waapam-iko-naw** 'he sees us [incl]'
- (15) **ki-waapam-iko-waaw** 'he sees you (pl)'
- (16) **ni-waapam-ikw-ak** 'they see me'
- (17) **ki-waapam-ikw-ak** 'they see you (pl)'
- (18) **ni-waapam-iko-naan-ak** 'they see us [excl]'
- (19) **ni-waapam-iko-naw-ak** 'they see us [incl]'
- (20) **ki-waapam-iko-waaw-ak** 'they see you (pl)'

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