

An Introduction to Typology

Part III: Grammatical Relations

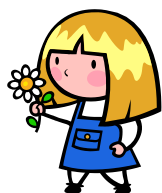
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June 29, 2012

Hieber, Daniel W. 2012. An introduction to typology, Part III: Grammatical relations. Talk given to the Content Development Department, Rosetta Stone, Harrisonburg, VA, Jun. 29, 2012.

Who did what to who(m)?

Event Participants



Ways They Can Interact



run

intransitive



bite

transitive



give

ditransitive

Two problems for language to solve:

- What type of action is it?
- What are the relationships among the participants?

Semantic Roles

- One method is *semantic roles*, i.e. the role that a participant has in an event
 - Agent – prototypically animate, human, topic
 - Patient – prototypically inanimate, focus, affected by action
 - Theme – prototypically unaffected by action
 - Recipient – prototypically receives some Theme
 - Experiencer – prototypically perceivers, emoters, and cognizers

Semantic Roles



The dog is tired.

Experiencer



The dog bit the man.

Agent

Patient



The man gave the girl a dog.

Agent

Recipient

Theme

Rephrasing the problem for language:

How do you communicate which semantic role each participant is playing?

The Problem with Semantic Roles

- Semantic roles are relative
 - Dogs are more prototypical Agents than rocks
 - Humans are more prototypical Agents than dogs
 - Dogs can be either Agents (*dog bites man*) or Patients (*man bites dog*)
- Since semantic roles are defined relative to other participants, the transitivity class of the verb matters too
 - *Dog* is prototypically an Agent/Experiencer in intransitive clauses
 - *Dog* is less likely to be an Agent/Experiencer in transitive or ditransitive clauses

(Non-)Prototypical Semantic Roles

- *man bites apple*
- *apple bites man*
- Animate/human serving as an Agent
- Canonical / Prototypical
- Type of noun makes semantic roles clear
- *dog bites man*
- *man bites dog*
- Non-human acting as an Agent
- Not Canonical
- Semantic roles cannot be inferred from the type of noun

What do you do in non-canonical cases?

- *Mark* the construction as non-canonical in some way
- Or, establish linguistic convention to clarify (e.g. word order)

Non-Canonical or Ambiguous Cases

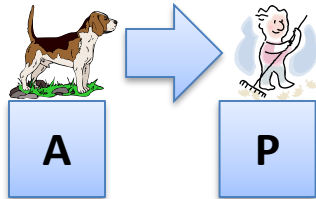
- English word order is a linguistic convention which clarifies semantic roles:
 - *The boy pushed the girl.*
 - *The girl pushed the boy.*
- English also clarifies semantic role with marking on pronouns:
 - ***He** pushed **her**.*
 - ***She** pushed **him**.*

Grammatical Roles

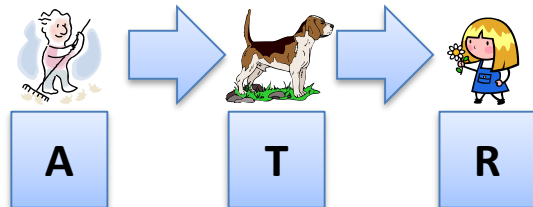
Some roles that languages mark



run



bite



give

Definitions of Grammatical Roles

- S = Argument in a clause with only one participant
- A = Most Agent-like argument of an action with two participants
- P = Most Patient-like argument of an action with two participants
- T = Most Theme-like participant of a physical transfer clause
- R = Most Recipient-like participant of a physical transfer clause

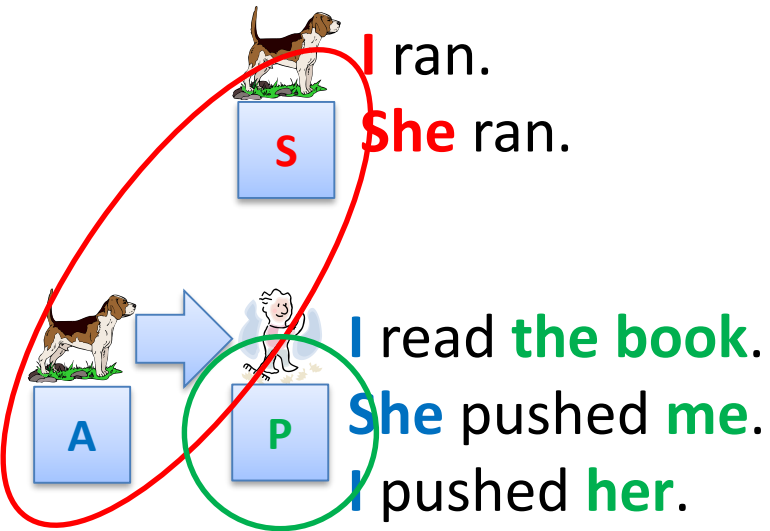
Prototypes

- A is not just the most Agent-like participant
 - A is also anything that gets marked in the same way as a prototypical Agent-like participant
 - *I read the book.* *I saw the book.*
 - Nominative case for pronoun (*I* instead of *me*)
- Languages differ as to what they mark similarly
 - English Experiencers group with Agents (cf. above)
 - *I like cassava.* (Prototypical Agent: *I run.*)
 - Spanish Experiencers group with Recipients
 - *Me gusta la yuca.* (Prototypical Agent: *(Yo) corro.*)
(Prototypical Recipient: *Me dan el libro.*)

Grammatical Relations (GRs)

- **Grammatical *Relations*** are language-specific ways that relationships among participants are marked
- **Grammatical *Roles*** are language-independent terms for describing participants in terms of transitivity type and relative semantic role
- GRs are clusters of properties which converge on a prototype
 - discourse function (Topic, Focus)
 - semantic role (Agent, Patient)
 - type of action (intransitive, transitive, ditransitive)

Grammatical Relations in English (Nominative-Accusative)



- $S = A$
 - S and A are expressed in the same way
 - P is expressed differently
- Only two GRs need to be distinguished
 - Nominative-Accusative

Nominative-Accusative Alignment

- Latin: *Lēgāt-us convocāvit mīlit-es.*
officer-NOM.SG called.together soldier-ACC.PL
'The officer called together the soldiers.'

Lēgāt-us cōnsēdit.
officer-NOM.SG settled.in
'The officer settled in.'

- Tawala: *i-bowi-ye-ya*
3SG.**A**-deny-TR-3SG.P
'he denied him'

Ezard (1997:289, 116)

apo i-na-nae
FUT 3SG.**S**-POT-go
'he will go'

Nominative-Accusative Alignment

- Japanese (Wikipedia contributors 2012b):

– *Otoko* **ga** *tsuita.*

man **NOM** arrived

‘The man arrived.’

– *Otoko* **ga** *kodomo* **o** *mita.*

man **NOM** child **ACC** saw

‘The man saw the child.’

Neutral Alignment

- No marking of any grammatical role
 - Word order, pragmatics, and context convey role
- Mandarin: *rén lái le*

person come CRS
'the person has come'

Zhāngsān mà Lǐsǐ le ma
Zhangsan scold Lisi CRS Q
'Did Zhangsan scold Lisi?'

Tripartite Alignment

- Rather than grouping some grammatical roles together, some languages mark all of them
- Wangkumara (Mallinson & Blake [1981], in Whaley [1997:158]):

– Kana-*ulu* kalkana titi-*nana*.
man-*ERG* hit dog-*ACC*.FEM
'The man hit the dog.'

– Kana-*ia* paluna.
man-*NOM* died
'The man died.'

Tripartite Alignment

- Hindi (McGregor 1977):

–	<i>laRkaa-ø</i>	<i>kal</i>	<i>aay-aa</i>		
	boy- NOM	yesterday	come.AOR-SG.M		
	'The boy came yesterday.'				
–	<i>laRke</i>	<i>ne</i>	<i>laRkii</i>	<i>ko</i>	<i>dekh-aa</i>
	boy.OBL	ERG	girl	ACC	see-SG.M
	'The boy saw the girl.'				

- Yukulta (Keen 1983:239, 237, 215):

- *waranankulu-ka-ti*
go.NEG.DES-1SG.**S**-PRES
'I'm trying to go'
- *ṭalmata-ṇa-nti* *ṇita*
chop.IND-1SG.**A**-FUT wood
'I'll chop the wood'
- *tʸinkaka-nki* *ṇata*
follow.IMP-1SG.**P** me
'follow me'

Ergative-Absolutive Alignment

- Iñupiaq

– *aḡna-m nigi-gaa punni-q*
woman-**ERG** eat-3SG.TRANS bread-**ABS**

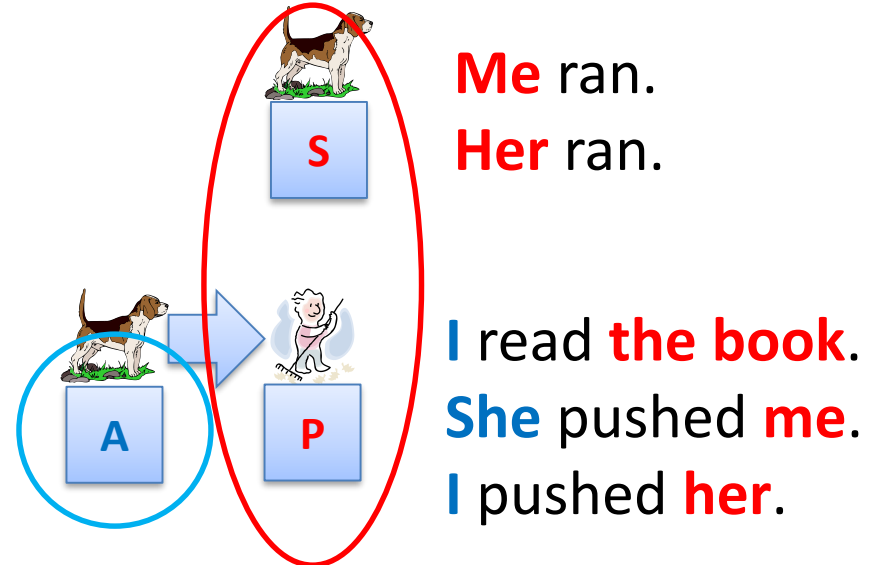
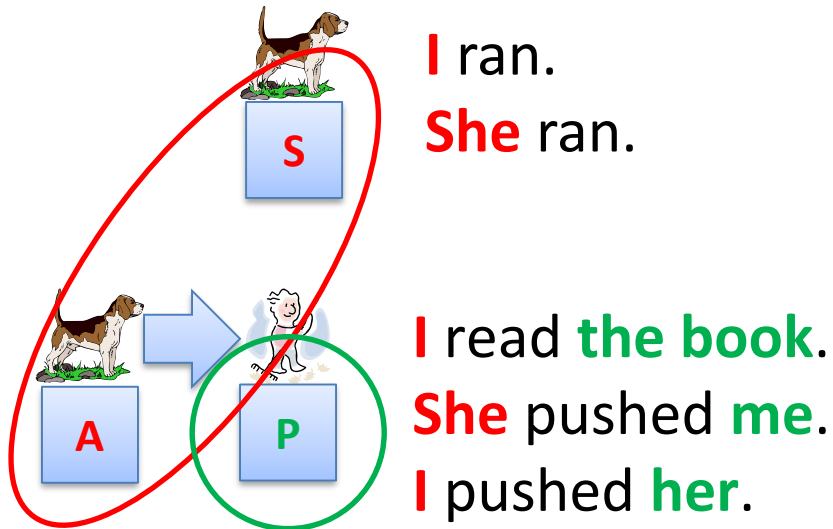
‘the woman is eating the bread’

– *aḡna-q nigi-ruq*
woman-**ABS** eat-3SG.INTR

‘the woman is eating’

Nominative-Accusative v. Ergative-Absolutive

If English were Ergative-Absolutive



What we think of as the Subject is split into two distinct grammatical relations in Ergative-Absolutive languages

Ergative-Absolutive Alignment

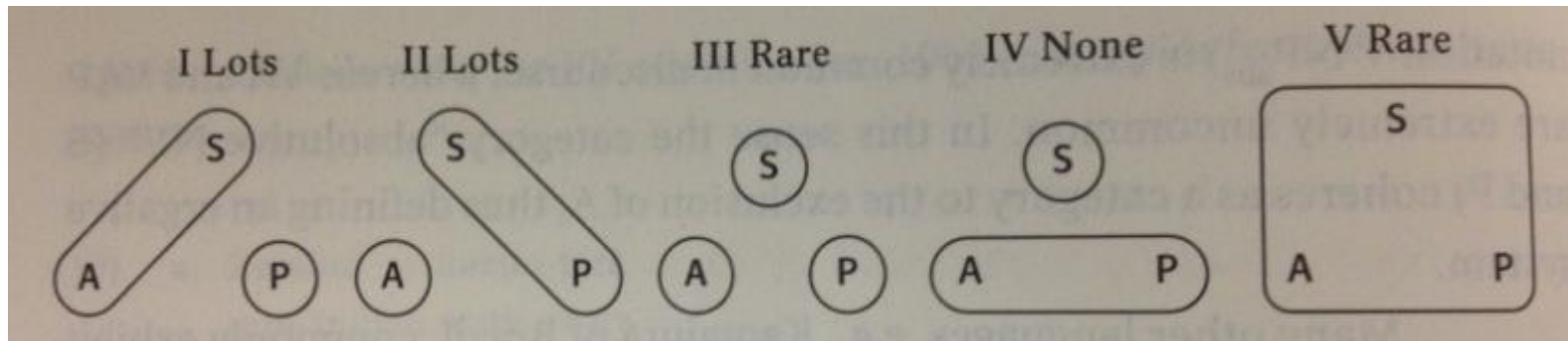
- Basque (Wikipedia contributors 2012a):

– *Gizon-**a** etorri da.*
man-**ABS** has arrived
'The man has arrived.'

– *Gizon-**ak** mutil-**a** ikusi du.*
man-**ERG** boy-**ABS** saw
'The man saw the boy.'

Alignment Types

- A = P – Doesn't exist!
 - Actor v. Undergoer are the most central roles, and are polar opposites
 - Wouldn't be able to distinguish who's doing what to who(m)
- Overview of Alignment Types



Semantic (a.k.a. Active) Alignment

GRs express semantic roles directly (A & P)

Chitimacha:

- *nuhc-ik*
run-1SG.**S**
'I ran'
- *qasi* *hect-ik*
man watch-1SG.**A**
'I watched the man'
- *gaht-ik*
bite-1SG.**A**
'I bit (it)'
- *guxt-ik*
eat-1SG.**S**
'I ate'
- *qeh-ik*
happen-1SG.**S**
'I arrived'

Agentive

- *dadiwa-ki*
cold.1SG.**S**
'I am cold'
- *qasi* *hect-ki*
man watch-1SG.**P**
'The man watched me'
- *gaht-ki*
bite-1SG.**P**
'it bit me'
- *paakins-ki*
tired-1SG.**S**
'I am tired'
- *qeh-ki*
happen.1SG.**P**
'it happened to me'

Patientive

Split Systems

- Type of alignment varies depending on part of speech or grammatical features
- Managalasi (Payne 1997:154):
 - Ergative-Absolutive for pronouns
 - Nominative-Accusative for verbs
- Hindi-Urdu (Wikipedia contributors 2012a):
 - Ergative-Absolutive in the perfective
 - Nominative-Accusative in other aspects

Split Ergativity in Managalasi

- *a-∅* *vaʔ-ena*
2SG-**S** go-FUT.2SG.S
'you will go'
- *na-∅* *vaʔ-ejo*
1SG-**S** go-FUT.1SG.S
'I will go'
- *na-ra* *a-∅* *an-aʔ-ejo*
1SG.**A** 2SG.**P** hit-2SG.P-FUT.1SG.A
'I will hit you'
- *a-ra* *na-∅* *an-iʔ-ena*
2SG.**A** 1SG.**P** hit-1SG.P-FUT.2SG.A
'you will hit me'

Split Ergativity in Hindi-Urdu

- *laṛkā-∅* *kitāb* *xarīdtā hai*
boy-M.SG.NOM book.F.SG.NOM buy-IMP be.PRES.3SG
‘the boy buys a book’
- *laṛke-ne* *kitāb* *xarīdī*
boy-M.SG.ERG book.F.SG.NOM buy-PRF
‘the boy bought a book’

Functional Explanations for GRs

- Original Problem:
 - When one participant is more *topic-worthy*, *animate*, or *agentive* than the other, you can assume which direction the action is going
- Topicality Hierarchy:

$1 > 2 > 3 > 1 > 2 > 3 > \text{proper names} > \text{humans} > \text{non-human animates} > \text{inanimates}$
 $\underbrace{\hspace{1.5cm}}_{\text{agreement} > \text{pronouns}} \quad \underbrace{\hspace{1.5cm}}_{\text{definite} > \text{indefinite}}$

 - When the non-canonical participant is the topic, that participant must be somehow *marked* as exceptional

Marking the Non-Canonical Topic

- *man dog pets*

Topic-Worthiness

- *man > dog*
- human > non-human

Direction of Action

- *man > dog*
- human > non-human

Result: Match

- *dog man bites*

Topic-Worthiness

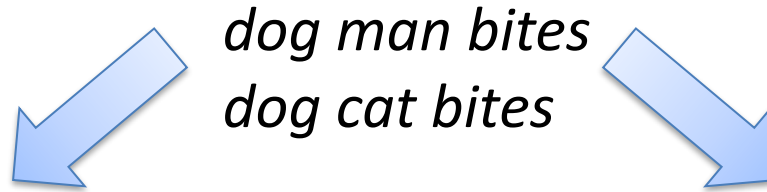
- *man > dog*
- human > non-human

Direction of Action

- *man < dog*
- human < non-human

Result: Mismatch

Marking the Non-Canonical Topic



Mark the Agent

- Only needs to be marked for transitive verbs
 - *dog-**MARKER** cat bites*
'the dog bites the cat'
- Intransitive verbs don't receive marking
 - *dog run*
'the dog is running'

Mark the Patient

- Only needs to be marked for transitive verbs
 - *dog cat-**MARKER** bites*
'the dog bites the cat'
- Intransitive verbs don't receive marking
 - *dog run*
'the dog is running'

Evolution of Alignment Marking

dog cat bites

Mark the Agent

- Only needs to be marked for transitive verbs

– *dog-MARKER cat-∅ bites*

A

P

‘the dog bites the cat’

- Intransitive verbs don’t receive marking

– *dog-∅ run*

S

‘the dog is running’

Mark the Patient

- Only needs to be marked for transitive verbs

– *dog-∅ cat-MARKER bites*

A

P

‘the dog bites the cat’

- Intransitive verbs don’t receive marking

– *dog-∅ run*

S

‘the dog is running’

S = P: Ergative-Absolutive

A = S: Nominative-Accusative

Evolution of Alignment Marking



Mark the Agent

- Only needs to be marked for transitive verbs

– dog-**MARKER** man- \emptyset bites

A

P

‘the dog bites the man’

- Intransitive verbs don’t receive marking

– dog- \emptyset run

S

‘the dog is running’

Mark the Patient

- Only needs to be marked for transitive verbs

– dog- \emptyset man-**MARKER** bites

A

P

‘the dog bites the man’

- Intransitive verbs don’t receive marking

– dog- \emptyset run

S

‘the dog is running’

S = P: Ergative-Absolutive

A = S: Nominative-Accusative

Evolution of Alignment Marking

- Ergative-Absolutive
 - *Dog* is lower on the topic hierarchy
 - *Dog* receives Ergative marking
 - Generalization: Participants lower on the topic hierarchy are more likely to show Ergative-Absolutive marking
- Nominative-Accusative
 - *Man* is higher on the topic hierarchy
 - *Man* receives Accusative marking
 - Generalization: Participants higher on the topic hierarchy are more likely to show Nominative-Accusative marking

Uniformity in Diversity

	Agreement	1/2 Pronouns	3 Pronoun	Definite Human	Definite Noun Phrases	Other Noun Phrases
<i>Managalasi</i>	NOM	ERG	ERG	-	-	-
<i>Dyirbal</i>	-	NOM	ERG	ERG	ERG	ERG
<i>Cashinawa</i>	NOM	NOM	NOM / ERG	ERG	ERG	ERG
<i>Spanish</i>	NOM	NOM	NOM	NOM	-	-
<i>Farsi</i>	NOM	NOM	NOM	NOM	NOM	-

Participants lower on the hierarchy show Ergative-Absolutive marking (or none)

Participants higher on the hierarchy show Nominative-Accusative marking (or none)

What seems like drastically different ways of dealing with the initial problem (the variety of language-specific GRs used to convey actions among participants), actually results from just a few basic principles:

- Semantic roles
- Grammatical roles
- Topicality hierarchy

Language is a complex emergent system

Payne (1997:158)

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