The Discourse Basis of Ergativity

Presenter:
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Discussion Question

1. What is the ergative case marking? Why is there a different case marking system from the nominative-accusative system?

2. What is unique about the role of ‘transitive subject’ (the A-role) in terms of information status?
Discussion Question

3. What is the preferred argument structure in language? Why is there a preferred argument structure?

4. How does this paper argue for a functionalist view of grammar?
Sacapultec Maya

• Morphology is entirely in the verbal cross-referencing inflection. (highly-inflectioned language)

• Full NPs and independent pronouns may occur (optionally) in the clause, along with the appropriate cross-referencing affixes – but the independent pronoun is rare except in contrastive contexts.
Grammatical Role

• A: transitive subject

• S: intransitive subject

• O: transitive object
What is the ergative case marking?

nominative

\[
\begin{array}{c}
\text{accusative} \\
\text{ergative} \\
\text{absolutive}
\end{array}
\]

\[
\begin{array}{c}
\text{nominative} \\
\text{A} \\
\text{S} \\
\text{ergative} \\
\text{O} \\
\text{absolutive}
\end{array}
\]
Nominative/Accusative
(take English for example)

1) He hit him.
   (A) (O)

2) He cried.
   (S)
Ergative/Absolutive
(take Sacapultec Maya for example)

2) š- at- qa- kuna -:x
   CMP-2sg.ABS-1PL.ERG- cure -TA
   ‘We cured you (sg.)’

3) š- ax- a:- kuna -:x
   CMP-1PL.ABS-2sg.ERG- cure -TA
   ‘You (sg.) cured us.’
4) š- ax- war -ek
   CMP-1pl.ABS- sleep -IF
   ‘We slept.’
5) š- at- war -ek
   CMP-2sg.ABS- sleep -IF
   ‘You (sg.) slept.’
8) k- Ø- war l aćeŋ
INC-3.ABS- sleep the man
‘The man sleeps.’

9)e: ra ax k- ax- war -ek
FOC the we INC-1pl.ABS-sleep -IF
‘We sleep.’
Analysing Information Flow in Discourse

• The packaging of new information must take account of old information, including both that communicated in the prior discourse and the unverbalized information that the speaker and hearer share as implicit knowledge of the world, represented in frames, schemas, scripts etc.
Analysing Information Flow in Discourse

• New information must virtually always be integrated within a framework of shared (old) information, in order to be usefully interpretable; hence, in natural discourse, almost all messages contain both types of information. Typically, the larger part of a message will consist of given or presupposed material, while ‘only a small chunk consists of the actual message, new information’ (Givon 1975:204).
Why is there a different case marking system from the nominative-accusative system?

- Grammars code best what speakers do most, then it becomes necessary to discover what linguistic patterns speakers most commonly use.

- (a) Morphological Type
- (b) Inherent Semantic Class of Referent
- (c) Grammatical Role
- (d) Information Status (concept activation state)
2.1. Grammar
FIGURE 1. Frequency of clauses with zero, one, and two lexical arguments (transitive and intransitive clauses combined).

Clauses with zero or one lexical argument are common, clauses with two lexical arguments are rare.
FIGURE 2. Frequency of clauses with zero, one, and two lexical arguments.
TABLE 1. Transitivity and number of lexical arguments in clause.

<table>
<thead>
<tr>
<th></th>
<th>0 LEX ARG</th>
<th></th>
<th>1 LEX ARG</th>
<th></th>
<th>2 LEX ARG</th>
<th></th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Transitive</td>
<td>84</td>
<td>46.9</td>
<td>90</td>
<td>50.3</td>
<td>5</td>
<td>2.8</td>
<td>179</td>
</tr>
<tr>
<td>Intransitive</td>
<td>127</td>
<td>48.1</td>
<td>137</td>
<td>51.9</td>
<td></td>
<td></td>
<td>264</td>
</tr>
<tr>
<td>Equational</td>
<td>0</td>
<td>0.0</td>
<td>13</td>
<td>100.0</td>
<td></td>
<td></td>
<td>13</td>
</tr>
<tr>
<td>TOTAL</td>
<td>211</td>
<td>46.3</td>
<td>240</td>
<td>52.6</td>
<td>5</td>
<td>1.1</td>
<td>456</td>
</tr>
</tbody>
</table>

TABLE 1. Transitivity and number of lexical arguments in clause.
One Lexical Argument Constraint

- Avoid more than one lexical argument per clause.
- It is not a categorical rule, but represents a tendency in the observed data. There is no absolute restriction in the grammar of Sacapultec that prevents speakers from producing clauses with two lexical arguments.
FIGURE 3. Distribution of lexical mentions among grammatical roles.

When a speaker has a referent that needs to be mentioned lexically, either the S or the O role (among argument position) may be freely selected; but the A role is not freely employed for lexical mentions.
FIGURE 4. What proportion of each argument position is lexical?

While S and O each contain a substantial proportion of lexical mentions, A contains a much smaller proportion of lexical mentions (6.1%).
TABLE 2. Grammatical role and morphological type of mention.

<table>
<thead>
<tr>
<th></th>
<th>Lexical</th>
<th></th>
<th>Pronominal</th>
<th></th>
<th>Affixal</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>A</td>
<td>11</td>
<td>6.1</td>
<td>13</td>
<td>7.2</td>
<td>156</td>
<td>86.7</td>
<td>180</td>
</tr>
<tr>
<td>S</td>
<td>126</td>
<td>48.1</td>
<td>12</td>
<td>4.6</td>
<td>124</td>
<td>47.3</td>
<td>262</td>
</tr>
<tr>
<td>O</td>
<td>81</td>
<td>45.8</td>
<td>2</td>
<td>1.1</td>
<td>94</td>
<td>53.1</td>
<td>262</td>
</tr>
<tr>
<td>OBL</td>
<td>118</td>
<td>84.9</td>
<td>2</td>
<td>1.4</td>
<td>19</td>
<td>13.7</td>
<td>177</td>
</tr>
<tr>
<td>PSR</td>
<td>12</td>
<td>16.9</td>
<td>4</td>
<td>5.6</td>
<td>55</td>
<td>77.5</td>
<td>139</td>
</tr>
<tr>
<td>OTHER</td>
<td>36</td>
<td>92.3</td>
<td>3</td>
<td>7.7</td>
<td>0</td>
<td>0.0</td>
<td>71</td>
</tr>
<tr>
<td>Total</td>
<td>384</td>
<td>44.2</td>
<td>36</td>
<td>4.1</td>
<td>448</td>
<td>51.6</td>
<td>868</td>
</tr>
</tbody>
</table>

However, if full NP’s were randomly distributed across grammatical positions, we should expect a much higher incidence of them in A position.
It appears that some factor exists which allows the free occurrence of lexical argument mentions in S and O roles, but which acts to limit (directly or indirectly) the occurrence of lexical mentions in the A role.
Non-lexical A Constraint

• Avoid lexical A’s.
• -> There is a tendency in discourse to limit the quantity of lexical arguments in a clause to a maximum of one; and that this single argument is not distributed randomly across the grammatically possible positions, but systematically disfavors certain roles.
• The conjunction of the One Lexical Argument Constraint and the Non-lexical A Constraint, as it governs the surface syntactic distribution of lexical arguments in discourse, constitutes what I call P[referred] A[rgument] S[tructure].
Why is there a different case marking system from the nominative-accusative system?

• Grammars code best what speakers do most, then it becomes necessary to discover what linguistic patterns speakers most commonly use.

• (a) Morphological Type
• (b) Inherent Semantic Class of Referent
• (c) Grammatical Role
• (d) Information Status (concept activation state)
2.2 Pragmatics
Figure 5. Frequency of clauses with zero, one, and two new arguments.

Substantial numbers of clauses (whether intransitive or transitive) contain zero or one new-argument mention, with the former predominating. However, not a single clause contains two new-argument mentions.
TABLE 5. Transitivity and number of new arguments in clause.

<table>
<thead>
<tr>
<th></th>
<th>0 NEW ARG</th>
<th>1 NEW ARG</th>
<th>2 NEW ARG</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Transitive</td>
<td>134</td>
<td>72.4</td>
<td>51</td>
<td>27.6</td>
</tr>
<tr>
<td>Intransitive</td>
<td>190</td>
<td>73.1</td>
<td>70</td>
<td>26.9</td>
</tr>
<tr>
<td>Equational</td>
<td>12</td>
<td>92.3</td>
<td>1</td>
<td>7.7</td>
</tr>
<tr>
<td>TOTAL</td>
<td>336</td>
<td>73.4</td>
<td>122</td>
<td>26.6</td>
</tr>
</tbody>
</table>

NOTE: The data for 2 new arguments in the Transitive category is not available.

竟然一句也没有！
One New Argument Constraint

• Avoid more than one new argument per clause.
Parallel to the constraint on syntactic roles in which lexical arguments may appear, there is a constraint on the syntactic roles in which new mentions may readily appear.
FIGURE 6. Distribution of new mentions among grammatical roles.

A relatively large portion of all the new mentions in argument positions occurs in the S and O roles, while only a small portion appears in the A role.
FIGURE 7. What proposition of each argument position is new?

For S and O, a substantial proportion is new; but for A, the proportion of new mentions is very low. This suggests that there is a role constraint on new information.
TABLE 7. Information status and grammatical role (arguments only).

<table>
<thead>
<tr>
<th></th>
<th>NEW</th>
<th>NON-NEW</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>6</td>
<td>181</td>
</tr>
<tr>
<td>S+O</td>
<td>100</td>
<td>328</td>
</tr>
</tbody>
</table>

χ² = 37.06, d.f. = 1, p < .001

TABLE 8. Information status and grammatical role (all roles).

<table>
<thead>
<tr>
<th></th>
<th>NEW</th>
<th>NON-NEW</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>6</td>
<td>181</td>
</tr>
<tr>
<td>NON-A</td>
<td>171</td>
<td>506</td>
</tr>
</tbody>
</table>

χ² = 43.74, d.f. = 1, p < .001
Given A Constraint

• Avoid new A’s, i.e. avoid introducing a new referent in the A-role argument position.
• -> This means that, in discourse, there is a maximum of one new referent per clause core; and this single new-argument mention typically appears in S or O roles, but not in A. Parallel to the grammatical dimension established earlier, there exists a pragmatic dimension of PAS.

<table>
<thead>
<tr>
<th></th>
<th>Grammar</th>
<th>Discourse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity</td>
<td>One Lexical Argument Constraint</td>
<td>One New Argument Constraint</td>
</tr>
<tr>
<td>Role</td>
<td>Non-lexical A Constraint</td>
<td>Given A Constraint</td>
</tr>
</tbody>
</table>
Why the pattern, ergative/absolutive, may have come into being?

- The appearance of lexical and new mentions in the S and O roles, but not A, is ultimately related to the role of topic continuity in the construction of narrative discourse.

- It is widely recognized that human protagonists tend to be the central participants in most narrative discourse, and tend to be maintained as theme (roughly, topic) in successive clauses. As a result, they are very often definite and given.
• The A role will be filled by a given mention of a thematic human protagonist – for which a pronoun or cross-referencing affix, rather than a full NP, will suffice.

• In the O position, by contrast, we tend to find inanimate patient arguments in much greater variety. Each is likely to be relatively ephemeral in the discourse, rarely persisting through more than a few successive clauses. The steady sequence of shifting patient referents results in the O role being filled very frequently with new, lexical mentions.
What is the connection between the pragmatic dimension and the grammatical dimension of PAS?

• Full NP’s are selected over pronouns, cross-referencing markers, and zeros; a full NP is typically selected whenever the referent represents new information.

• The Non-lexical A Constraint and the Given A Constraint are related. There does tend to be a strong correlation between the pragmatic status NEW and the morphological status LEXICAL.
• A speaker first decides that a referent must be treated as **new**, and subsequently makes the decision regarding **morphological type**.

• The **Given A Constraint** can be seen as the basis for the pattern codified as the **Non-lexical A Constraint**.

• **lexical** = full NP = new information
  
  \[ \text{Given A Constraint} \rightarrow \text{given information in A} \]
  
  \[ \downarrow \text{Non-lexical A Constraint} \]
Is PAS universal?

• English, German, Portuguese, French, Hebrew, Quechua, Rama, Papago, and Japanese are all clearly **accusative in grammar**; nevertheless, **in spoken discourse**, they display an **ergative/absolutive pattern** of information flow.

• The fact that **accusative languages display ergative/absolutive patterning** allows us to reject the possibility that PAS is merely an effect of ergative structure.
Why are not all languages ergative?

• Several functional motivations **compete** to control the structuring of the single system of grammatical relations.

• **Mentions** appear in the \{S,A\} category are typically human, agentive, and topical.

• Many linguists have argued that **Topic** is the basis for grammaticizing the category of **subject**, in languages which have this category.
• In contrast to accusative languages – which treat the subject \{ S,A \} as topical; ergative languages treat the absolutive category \{ S,O \} as topical.

• It is claimed that in transitive clauses, the patient (or the O), realized absolutively, is **topical** for speakers of an ergative language.

• This kind of claim about topicality in ergative languages is usually advanced in an effort to equate the unmarked category (absolutive) with the category of topic, or subject, or both.

• \[
\begin{align*}
A & \rightarrow \text{topical (accusative languages)} \\
S & \rightarrow \\
O & \rightarrow \text{topical (ergative languages)}
\end{align*}
\]
The importance of the linkage of \{ S,A \}
• Figure 8 presents the distribution of all mentions of human referents across the various grammatical roles. The great majority of human-referent mentions appears in argument positions; and within this grammatical domain the overwhelmingly preferred roles are S or A, but not O.
• All 187 of the A-role mentions are human. In the S role, a substantial majority of mentions are of human referents. But in the O role, far less than half the mentions are of human referents.

• The set \{S,A\} represents the preferred position for human mentions.

Figure 9. What proportion of each argument position is human?
• S --- A : nominative alignment
  S --- O : absolultive alignment

• **Topic continuity** which is associated with the relevant pairings of **syntactic roles**. Anaphoric links across successive clauses are tabulated according to the **syntactic roles** in which the coreferential mentions occur in the two clauses.

• S = A
  S = O
The S=A links clearly outstrip the S=O links. We can conclude that, the factor of topic continuity links S with A more than with O: continuity of reference across the S and A roles strongly outweighs such continuity across the S and O roles.
• Even in a clearly ergative/absolutive language, the **topic continuity** dimension can be shown to define a nominative/accusative \( \{ S,A \} \) alignment.

• In languages which actually realize an accusative grammatical structure, which has won out over the competing pressure to ergativity.

• There must exist a latent pressure to ergativity in accusative languages, to the extent that accusative languages also exhibit PAS.
More and more of the most fundamental aspects of grammar are revealed as shaped by language use.
Thank you