

Control, Grammatical Relations and Argument Structure:

Towards a Parameterized Theory of the Lexicon for CCG

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2.10.2003, CSS Paris

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Empirical Problems I: Morphological resources and the controllee

Controllee is absolutive or ergative in Basque.

- (1) *Nik [joan] nahi dut*
I-ERG go-INF want have.1SG.3SG
'I want [to go].'
- (2) *Nik [kafea egin] nahi dut*
I-ERG coffee-ABS do-INF want have.1SG.3SG
'I want [to make coffee].'
Alan King(p.c.)

Controllee is always nominative in Turkish.

- (3) *Ben [gitmek] istiyorum*
I.NOM go-INF want-TENSE-P1sg
'I want [to go].'
- (4) *Ben [kitabı okumak] istiyorum*
I.NOM book-ACC read-INF want-TENSE-P1sg
'I want [to read the book].'

Not all absolutive arguments can be the controllee in Basque:

- (5) **Aitak* [*semeak ikusi*] *nahi dut*
Father-ERG Son-ERG see.INF want have.3SG.3SG
* for 'The father wants [the son to see him (father)].'

Only absolutive arguments can be the controllee in Dyirbal:

- (6) *Bayi yara* *walngarra* [*naba-ygu*]
I.ABS.TH man.ABS want-NFUT bathe-PURP
'The man wanted [to bathe].' (Manning, 1996)
- (7) *Naja bayi yara* *giga-n* [*gubi-ngu mawa-li*]
I.NOM I.ABS.TH man.ABS tell-NFUT doctor-ERG examine-PURP
'I told the man to be examined by the doctor.'
lit. 'I told the man [doctor examine].'

Morphological resources do not necessarily align for control.

Controllee not necessarily confined to subjects/agents

Ergativity

Morphological:

- (8) *Arnaq* *yurar-tuq*
woman-ABS dance-IND.3SG

S

'The woman dances.'

Yup'ik (Bok-Bennema, 1991)

- (9) *Angutem tangrr-aa* *arnaq*
man-ERG see-IND.3SG.3SG woman-ABS

A

'The man sees the woman.'

P

Syntactic:

- (10) [*bayi* *burrbula* *bangul* *gubi-ngu* *bara-n*] [*--* *baji-gu*]
I.ABS.TH B.ABS I.ERG.TH doctor-ERG punch-NFUT fall.down-PURP

P

'The doctor punched Burrbula_i and --_i fell down.'

A

S

Dyirbal (Manning, 1996)

Empirical Problems II: What can be the controllee

- Syntactic subject

(11)a. *John wants to clean the window.*

b. *The dog wants to be pet.*

c. *The window tries to open.*

d. *bayi yara walngarra [bangun yibi-ngu bura-li]*
I.ABS.TH man.ABS want-NFUT II.ERG.TH woman-ERG see-PURP
'The man wanted the woman to see him'.
lit. 'The man wanted [woman see].'

- Logical subject

(12)a. *Miiqqat [Juuna ikiu-ssa-llu-gu niriursui-pp-u-t]*
children.ABS J.ABS help-FUT-INF-3SG promise-IND-INTR-3PL
'The children promised [to help Juuna].' Inuit (Manning, 1996)

b. *Miiqqat [qiti-ssa-llu-tik] niriursui-pp-u-t*
children.ABS dance-FUT-INF-4PL promise-IND-INTR-3PL
'The children promised [to dance].'

- Logical and syntactic subject

(13)a. *er gefällt mir.*
he.NOM pleases I.DAT
'he pleases me.' = 'I like him.' German (Stiebels et al. 2003)

b. **Ich_i hoffe [--_i er zu gefallen]*
I hope \emptyset .DAT he.NOM to please
'I hope to like him.'

c. *er_i hofft [--_i mir zu gefallen]*
he hopes \emptyset .NOM I.DAT to please
'he hopes to please me.'

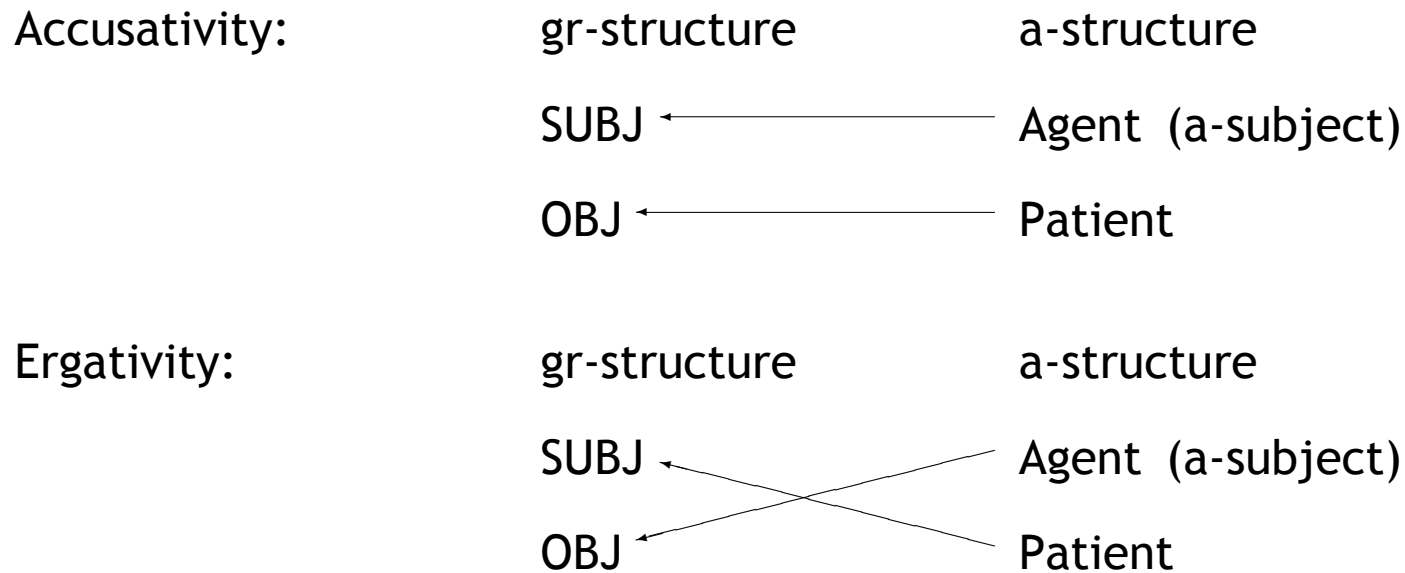
- The control verb exerts control, but does not (cannot?) determine what the argument means to the embedded clause
 - ▷ *Not always the semantic subject*
 - ▷ *Not always the syntactic subject*

Theoretical Problems

- Multi-tiered grammar architectures

Sadock (1991), Yip, Maling & Jackendoff (1987), Bittner (1994), Manning (1996)

- Manning's organization of grammar:

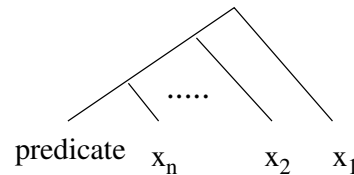


- Arguments other than a-subjects can be controlled (Dyirbal, Toba Batak, Tagalog): a-subject, or \mathcal{S} and \mathcal{A} , are not enough
- Not all a-subjects can be controlled: \mathcal{S} and \mathcal{A} are not adequate

Proposal

Lexicalize the grammar. Encode in the lexicon

- Surface-syntactic types (e.g. $S \backslash NP_{abs}$ as category of an intrans. verb)
- Semantic types (predicate, argument 1, argument 2)



Parameterize the lexicon (assuming fixed combinatory system)

Semantic subject: 1 in the predicate-argument structure.

Syntactic subject: Argument that bears same GR as the identity that contains S .

- Syntactic properties refer to syntactic types in the lexicon
- Semantic properties refer to semantic types in the lexicon (define type of control)

Extraction along e.g. $S \ NP$, $\mathcal{A} \ NP$, and $\mathcal{P} \ NP$ (pivot), but not NP_1

Control along e.g. $S|NP_1$, $S|NP_{abs}$ if abs encodes subject relation, but not $S|NP_2$, or $S \backslash NP_{acc}$

Proposal (cont'd)

- **Syntactic uniformity:** The embedded clause which contains the controlled argument has the category $S|NP_{cp}$ in any control relation cross-linguistically, where cp is the **control parameter**.
- Four possibilities for $S|NP_{cp}$
 - $S|NP_1$: Basque, Inuit, Tagalog
 - $S|NP_{\mathcal{S}}$: Dyirbal, English, Turkish (where \mathcal{S} case is abs or nom)
 - $S|NP_{1,\mathcal{S}}$: German (where \mathcal{S} is nom)
 - No control : Mohawk (Baker, 2001)
- **Semantic opaqueness:** The control verb's category marks both the controller and the controllee as related, in its argument structure, as x_i for the controller and $(ana x_i)$ for the controllee. For instance, $\lambda P.\lambda x.want' P(ana x)x$. (i.e. control is local)

Embedded clause's predicate-argument structure P is opaque to the control verb, hence in principle the control verb cannot determine what its controller argument means to the embedded clause

German

- Dative subjects cannot be controlled: $S|NP_{1,nom}$ residue

(18) *er gefällt mir.*

he.NOM pleases I.DAT

'he pleases me.' = 'I like him.'

(19) **Ich_i hoffe [--_i er zu gefallen]* $S|NP_{1,dat}$

I hope \emptyset .DAT he.NOM to please

'I hope to like him.'

(20) *er_i hofft [--_i mir zu gefallen]* $S|NP_{1,nom}$

he hopes \emptyset .NOM I.DAT to please

'he hopes to please me.'

Inuit

- Syntax is ergative ($\mathcal{S}=\mathcal{P}$), but control is \mathcal{S} and \mathcal{A} only: $\mathbf{S|NP}_1$ residue

$niriursui := \mathbf{S}\{\backslash \mathbf{NP}_{\text{abs}}, \backslash (\mathbf{S|NP}_1)\} : \lambda P. \lambda x_1. \text{promise}' P(\text{ana } x_1) x_1$

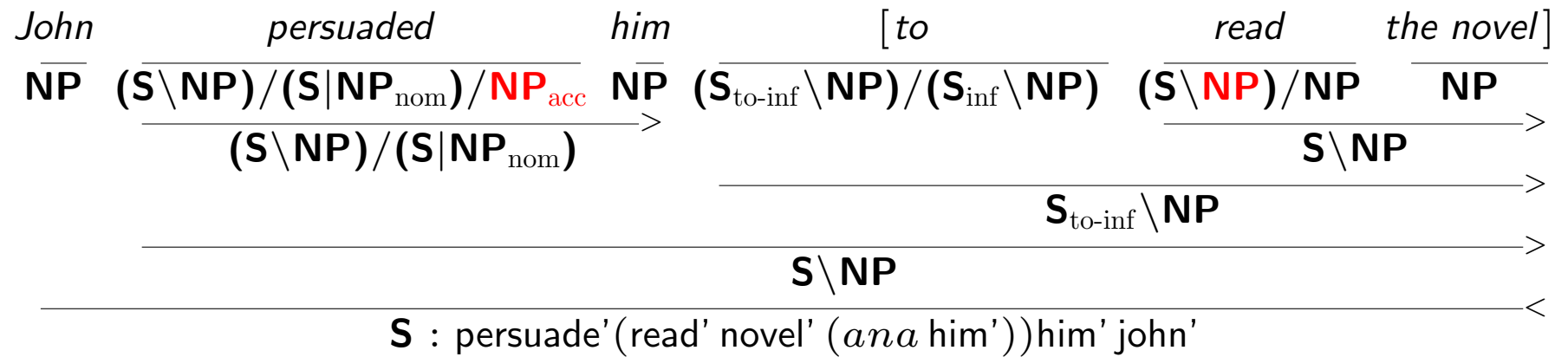
(21)a. $\begin{array}{c} \text{Miiqqat} \quad [\text{Juuna} \quad \text{ikiu-ssa-llu-gu}] \quad \text{niriursui-pp-u-t} \\ \text{children.ABS} \quad \text{J.ABS} \quad \text{help-FUT-INF-3SG} \quad \text{promise-IND-INTR-3PL} \\ \hline \mathbf{NP}_a \quad \mathbf{NP}_a \quad \mathbf{S}\{\backslash \mathbf{NP}_e, \backslash \mathbf{NP}_a\} \quad \mathbf{S}\{\backslash \mathbf{NP}_a, \backslash (\mathbf{S|NP}_1)\} \\ \hline \mathbf{S}\backslash \mathbf{NP}_e \\ \hline \mathbf{S}\backslash \mathbf{NP}_a \\ \hline \mathbf{S}: \text{promise}'(\text{help}' \text{juuna}'(\text{ana children}')) \text{children}' \\ \text{'The children promised to help Juuna.'} \end{array}$

b. $\begin{array}{c} \text{Miiqqat} \quad [\text{qiti-ssa-llu-tik}] \quad \text{niriursui-pp-u-t} \\ \text{children} \quad \text{dance-FUT-INF-4PL} \quad \text{promise-IND-INTR-3PL} \\ \hline \mathbf{NP}_a \quad \mathbf{S}\backslash \mathbf{NP}_a \quad \mathbf{S}\{\backslash \mathbf{NP}_a, \backslash (\mathbf{S|NP}_1)\} \\ \hline \mathbf{S}\backslash \mathbf{NP}_a \\ \hline \mathbf{S}: \text{promise}'(\text{dance}'(\text{ana children}')) \text{children}' \\ \text{'The children promised to dance.'} \end{array}$

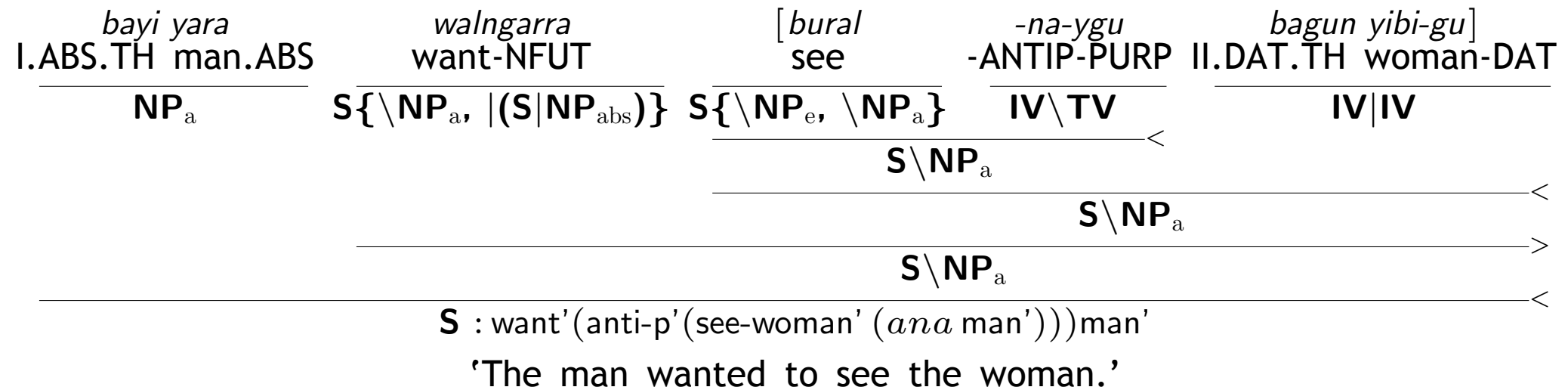
Conclusions

- No tiers (e.g. a-subject v subject), just lexical types and predicate-argument structure
- No re-organization of the grammar for control or GRs
- Skeleton of control 'sub-lexicon' can be determined from
 - Type of control in the language
 - Fixed syntactic type for the controlled clause: $S|NP_{cp}$
- No special mechanism for control (e.g. trace v PRO distinction, etc.); lexically specified in PAS terms (hence no problem with ECM)
- Lexical types and parameters suffice to distinguish syntactic and semantic phenomena systematically
- Ergative pattern of control in acc languages (singling out \mathcal{A} for no control)?
Not likely; \mathcal{A} is part of $\mathcal{S}=\mathcal{A}$, hence subject case, which at least covers \mathcal{S} , also encodes \mathcal{A} .
- Ergative patterns of *syntax* in acc languages? Abundant in e.g. Russian, Turkish, Hungarian ... (Moravscik, 1978). Compatible with surface org. of syntax.

- Exceptional case marking: Not an exception; *him* is a syntactic argument of *persuade*, and no syntactic linking in surface structure



- Anti-passive: Its absence in second example below is problematic for Manning (1996), because (his) $S=A$ alignment of control (i.e. a-subject) is violated (\mathcal{P} is controlled).
- But as the derivation shows, it is not an exception at all; control is still regulated by the argument structure of *want*, which in principle can exert control via its sole argument but could not constrain what that argument means to the embedded verb because its argument structure is opaque to the control verb.



bayi yara
I.ABS.TH man.ABS

NP_a

walngarra
want-NFUT

$\text{S}\{\backslash \text{NP}_a, |(\text{S}|\text{NP}_{\text{abs}})\}$

[*bangun yibi-ngu*
II.ERG.TH woman-ERG

NP_e

bura-li
see-PURP

$\text{S}\{\backslash \text{NP}_e, \backslash \text{NP}_a\}$

$\text{S}\backslash \text{NP}_a$

$\text{S}\backslash \text{NP}_a$

S : want' (see' (*ana* man') woman') man'

'The man wanted the woman to see him.'