

**Lecture 5: Lexical Integrity Principle;
Grammatical Functions
(First part of Bresnan Ch. 6)**

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Bresnan Ch. 6 Theory of Structure-Function Mapping

- Why languages vary
- Lexical Integrity Principle
- Basics of Grammatical Functions

Why do languages vary?

Functionalist answer: Different resolutions of competition between **iconicity** and **economy**.

iconicity between syntax & semantic: Completeness, Coherence require the **full representation of GRs at f-s**

economy [c-s]:

- **economy of expression**: eliminate unneeded c-structure
- **lexical integrity**: words correspond to c-s nodes

Grammar optimization, cp. OT- LFG (see links on LFG website)

Economy of Expression : All **syntactic PS nodes** are optional and not used unless required by independent principles (completeness, coherence, semantic expressivity)

syntactic PS nodes: Nodes except terminals (words) and preterminals (nodes immediately dominating words)

- privileges lexical over syntactic
- semantic expressivity: adjuncts OK if they add meaning
- redundant (wrt f-s) PS nodes not allowed

Empty categories

- Bresnan: Empty categories OK only if needed to satisfy completeness, etc.
- Some versions of LFG (e.g. Dalrymple): No empty categories at all.

Principle of functionality of c-structure: c-s OK only if contributes to f-s

Lexical Integrity: Morphologically complete words are the leaves of the c-s tree and each leaf corresponds to one and only one c-s node.

Evidence:

- rigid morpheme order is encapsulated from free word order. E.g. Warlpiri: free word-order, fixed morpheme-order
- word order and morpheme order can differ in a language. E.g. English phrases are head-initial while words are head-final (*birdsong* vs. *songbird*)

- different building blocks of words vs. phrases
 - words are composed of **stems** and **affixes**
 - no word-internal phrasal configurations.
e.g. W. Greenlandic noun incorporation: although the N fills a GF, structurally it is bound stem, not full NP (e.g. no case morpheme)
 - no e.c.'s within words (e.g. words are 'islands' to extraction)
- word-internal structure is invisible to c-s, visible to f-s

More on Lexical Integrity

Bresnan, Joan, and Sam A. Mchombo. 1995. The Lexical Integrity Principle: Evidence from Bantu. *Natural Language and Linguistic Theory* 13.2:181-254.

Found in syntax but not in the lexicon:

1. **full phrasal recursion**: arbitrarily deep embedding of phrasal modifiers/specifiers
2. **items lacking lexical content**:
 - a. functional categories like conjunctions & complementizers
 - b. empty categories
3. **anaphoric/indexical pronouns**. Exception: argument pronouns with determinate GF

Five tests for lexical integrity:

1. extraction

[American History teachers]

* American History, which they've been [____ teachers]
for years, ...

cp. [teachers of American history]

(?) American history, which we have many fine [teachers
of ____], ...

Explanation: no empty categories in lexical structure.

2. Conjoinability

*[joyful- and cheeri-] ness
the [joyful and cheery] crowd

Explanation: no conjunctions in lexical structure.

What about *pre- and post-war* ?

B&M: This is prosodically conditioned ellipsis, cp.

I'm more interested in pre- ~~World War II~~ than I am in
post- World War II.

prosodic condition: elided element and remnant must
each be a phonological word

4. inbound anaphoric islands

McCarthyite, Bush-supporter

*himite, *him-supporter (cp. supporter of Bush/him)

But: incorporated pronouns with determinate GF are OK.

Explanation: anaphoric/indexical pronouns have lexical content (hence argument pronouns can be incorporated) but not the right kind of content to serve as bases for derivation.

5. phrasal recursivity

happy - ness (happiness)

*[quite happy]-ness

*[more happy than sad]-ness

What about: [employee-of-the-month] club

These are lexicalized elements that just quote the phrase. cp.

a certain je ne sais quoi quality

an I told you so attitude ('I' ≠ speaker)

Explanation: lexical morphology lacks full phrasal recursion, i.e. arbitrarily deep embedding of phrasal modifiers/specifiers

Basics of Grammatical Functions (GFs)

each GF (SUBJ, OBJ, etc.): a class of equivalently mapped c-s expressions

SUBJ mapping to **c-structure** varies:

- a case
- a position
- verbal inflection
- combinations

SUBJ mapping to **argument structure** varies:

- NOM/ACC: most prominent
- Active: semantic controller
- Ergative: most affected

Suppose that there were no GFs.
NOM/ACC system using combination of

N: Nominative case

a: agreement

p: position

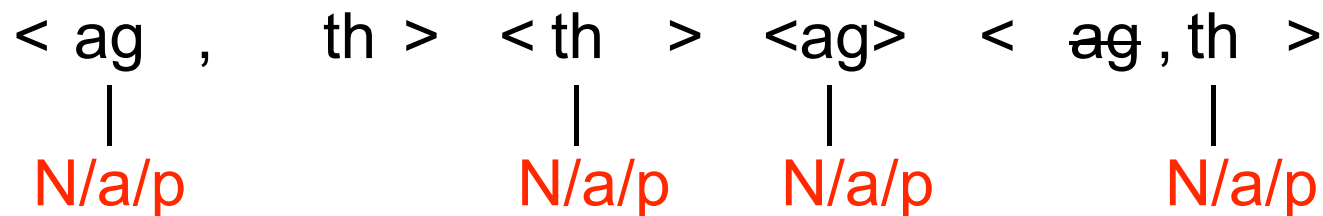
The girl kissed the frog. < ag , th >

The vase fell. < th >

The boy sang. < ag >

The fish was eaten. < ag , th >

a-structure to c-structure mapping:



This loses a generalization!

SUBJ abstraction captures equivalence across different a-s's and c-s's.

a-structure to f-structure mapping:

< ag , th >	< th >	<ag>	< ag , th >
SUBJ	SUBJ	SUBJ	SUBJ

f-structure to c-structure mapping:

SUBJ \Leftrightarrow nominative/agreement/position

And many other syntactic processes are defined on GF.

LFG Grammatical Functions

	TOP, FOC	SUBJ	OBJ	OBJ _θ	OBL _θ	COMP	XCOMP	ADJ	XADJ
governable		x	x	x	x	x	x		
open							x		x
modifiers								x	x
discourse	x	x							

'Nominal' (typically NP or PP) Governable Grammatical Functions

	SUBJ	OBJ	OBJ _θ	OBL _θ
terms (= core)	x	x	x	
semantically restricted			x	x
semantically unrestricted	x	x		
objective		x	x	