

Lexical-Functional Grammar

Lecture 2: More Motivations— lexicity of relation changes

Stephen Wechsler

University of Texas at Austin

Bresnan, J. (1995). Lexicality and Argument Structure. Paris Syntax and Semantics Conference, Paris.

(Summarized in Bresnan 2001 LFG textbook, Ch. 3, Sec. 3.2 'The Lexicality of Relation Changes.')

Which generalizations should be captured in the syntax proper, and which in the lexicon?

The Lexicalist Hypothesis.

In early TG (1960s), there was one main device for capturing syntactic generalizations: the transformation. For example, (b) would be derived by transformation from a clause like (a):

- a. the army [destroyed the city]
- b. the army's [destruction of the city]

Chomsky (1970, 'Remarks on Nominalization') argued that **derivational morphology** relations like *destroy/destruction*, are best captured in the lexicon.

Consequences:

(i) To capture parallels between phrases across different categories, X-bar theory was developed.

(ii) The lexicon was enriched to include 'redundancy rules'. Later, cross-categorial parallels were captured with theories of argument structure.

GB vs. 'strong lexicalist' approaches to relation-changing alternations (**inflectional morphology**) like passive, causative, applicative, etc.:

(i) **GB**. Abandon transformations for derivational (morphology) parallels (*destroy_V/destruction_N*); continue to capture relation-changing alternations using transformations on syntactic structure (NP-movement):

active *eat*: eat < agt, th >
Someone will [eat this sandwich]_{VP}.

passive *eaten*: eat < agt, th >
The sandwich_i was [eaten e]_{VP}

English Participle-Adjective Conversions

1. Adjectives can be distinguished from verbs by various tests. (p. 30)

2. English has three types of **verb** participles; each type can be converted to an **adjective** (p. 31):

present part.: The child is **smiling_v**.
a **smiling_A** child

perfect part.: The leaf has **fallen_v**.
a **fallen_A** leaf

passive part.: The kids were **taught_v** manual skills.
untaught_A skills

What **evidence for V→A conversion** does Bresnan present?

Evidence for V→A conversion:

- preserves irregular morphology

The book was written by Chomsky.
a well-written book (*a well-writed book)

- preserves preposition incorporation

The fields were marched through by an army.
the fields had a [marched through]_{AP} look.

- preserves constraints on passive

*He is looked like by his brother.

*a looked-like twin

3. Some conditions on adjectival passive follow from general properties of English adjectives (Levin and Rappaport 1986):

(i) Ditransitives: If the passive verb has two obligatory NP arguments (other than the suppressed one), then $V \rightarrow A$ conversion fails. (Why?)

He handed Mary the medal. *hand*, V. [___ NP NP]

*He handed Mary.

??He handed the medal.

*an unhanded person

??an unhanded medal

*The medal remained unhanded Mary.

*Mary remained unhanded the medal.

(ii) If the passive verb has any obligatory arguments (other than the suppressed one), then the derived Adj cannot appear in prenominal position. (Why?)

sell₁, V. [___ NP NP]

Mary sold John **the car**.

John was sold **the car** (by Mary).

*John was sold (by Mary). ('Mary sold s.t. to J.)

sell₂, V. [___ NP PP_{to}]

Mary sold the car to John.

The car was sold to John (by Mary).

The car was sold (by Mary).

an unsold₂ car / *an unsold₁ customer

- (1) a. The customer was offered a deal.
b. A deal was offered to the customer.
c. a recently offered deal
d. *a recently offered customer
- (2) a. A medal was given to the winner.
b. The winner was given a medal.
c. a frequently given medal
d. *a frequently given winner
- (3) a. The children were taught manual skills.
b. Manual skills were taught to the children.
c. untaught skills
d. untaught children

- (4) a. Horrible food was served to the customers.
b. The customers were served horrible food.
c. the unserved food
d. the unserved customers
- (5) a. A knife was handed to the butcher.
b. The butcher was handed a knife.
c. *a carefully handed knife
d. *a carefully handed butcher
- (6) a. The pillow was stuffed with feathers.
b. The feathers were stuffed into the pillow.
c. a stuffed pillow
d. *some stuffed feathers
e. The pillow remained stuffed with feathers.

f. The feathers remained stuffed in the pillow.

(7) a. The shelf was piled with books.

b. Books were piled on the shelf.

c. carefully piled books

d. *a carefully piled shelf

e. The books remained piled on the shelf.

f. The shelf remained piled with books.

A simple lexicalist explanation

The deverbal adjective preserves the subject and complement selection properties of the verb, whether active or passive. Obligatory dependents remain obligatory.

However, prenominal adjectives disallow complements; hence if there are any obligatory complements of the (active or passive) verb, then the prenominal adjective fails.

All adjectives, whether prenominal or predicative, disallow NP complements; hence if there are any obligatory NP complements of the (active or passive) verb, then the adjective fails.

Levin and Rappaport's (1986) GB analysis.

N.b. On GB assumptions, Theme role is VP-internal in verbal passive (a,b) but AP-external in (c):

- a. ___ PAST [be eaten the sandwich]VP (d-str)
- b. the sandwich_i PAST [be eaten *e_i*]VP (s-str)
- c. the [partially eaten]AP sandwich (adj. passive)

L&R's rule for V->A simply says '**externalize some (NP) argument**':

<u>verb</u>		<u>adjective</u>		
eaten	< <u>agt</u> , th >	=>	eaten	< <u>agt</u> , <u>th</u> >

L&R supported this with claim that (some) unaccusative V's allow adjectivalization, unergatives don't.

fall < theme > ~ run < agent >

- (1) a. a fallen tree [a tree that has fallen]
b. an undescended testicle [a testicle that has not descended (into the scrotum)]
c. a risen Christ [a Christ who has risen]
d. a lapsed Catholic [a Catholic who has lapsed]
- (2) a. *a run man [a man who has run]
b. *a sung tenor [a tenor who has sung]

But...

Bresnan argues that this purported syntactic generalization is false. Instead, there is only a semantic condition: 'The state denoted by the adjective appears to be the **result state** of the eventuality denoted by the participle.' (p. 12-13).

Unergatives tend to lack result states, but when a goal or limit is supplied then conversion succeeds:

a run-away slave
a well-prepared teacher
a confessed killer
a recanted Chomskyan
...etc.

run < Agent >
prepare < Agent >
confess < Agent >
recant < Agent >

Conclusion

L&R must invoke the rule ‘externalize an argument’ for **adjectives** in exactly the cases where NP-movement will occur in the syntax for the corresponding **verb**— a very suspicious situation!

But in a (‘radical’) lexicalist framework, we need only assume that **conversion preserves the subject of predication.**

Chichewa Manner Nominalization

Background: Among Chichewa's relation-changing processes which are morphologically marked on the verb are these three:

applicative: adds a direct argument

causative: adds a 'causer' argument

reciprocal: adds an argument with a reciprocal interpretation ('each other')

(i) In lexicalist theories, these are treated as morphemes which alter the argument structure. No movement occurs in syntax.

(ii) In GB, these are analyzed in terms of movement (M. Baker 1988, inter alia)

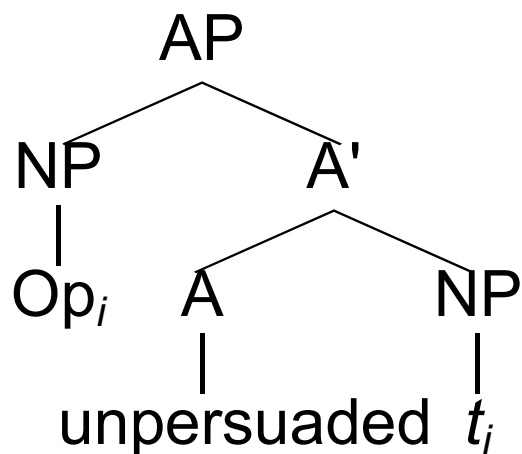
2. Chichewa has a V->N derivational process. This derivation is fed by applicative, causative, and reciprocal. For example, each of these three processes can transitive a verb. The resulting stem acts like other transitives w.r.t. nominalization: the complement appears in a PP headed by *ká* ('of'), while the agent is expressed either as a possessor or as a PP headed by *ndí* ('by'). Since the V->N derivation is lexical, it follows that applicative, causative, and reciprocal must also be lexical.

Addendum: Can a syntactic analysis of deverbal adjectives be saved?

Consider another possible GB/MP analysis of deverbal adjectives. Suppose that the operative condition is NOT that adjectives must have an external argument (L&R), but rather that **APs must have a subject** ([Spec,AP])—perhaps due to the EPP, or else some condition to the effect that the AP must be interpretable as a modifier or predicate.

Then unergative subjects would be base-generated in Spec, while unaccusatives and passives would move there, exactly paralleling verbal structures. (In modifier position perhaps there would be a null Operator in

Spec,AP, bound by the head noun; for predicate APs the subject would raise further to get case from a functional head.)



But...

There would still be problems (Joan Bresnan, p.c.):

1. prenominals:

The voters remain in an unpersuaded/confused state.

Here, the head noun *state* is not the subject of predication of the deverbal passive adjectives. The adjectives are rather interpreted appositionally (cf. ‘a state of confusion/unpersuadedness’). If the subject of adjective is lexically quantified, this isn't a problem. But if it is syntactically created, we have to recreate as many ways in the syntax of discharging the null Op as we have in the lexicon.

2. compounds:

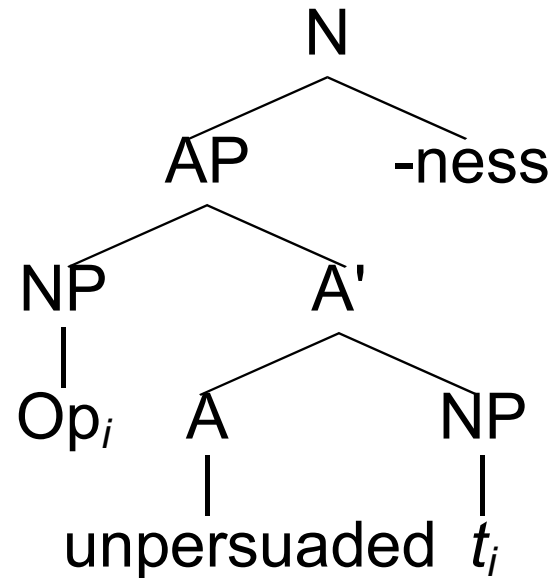
snow-covered (cp. The mountain is covered **by snow**)

snow-fallen* (cp. **The snow fell on the mountain.)

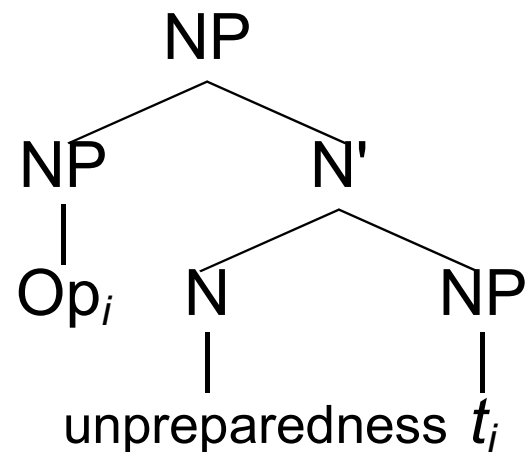
Bresnan 1982 ("The Passive in Lexical Theory"):
synthetic noun-participle compounds are subject to the
constraint that **the compounded noun cannot fill the
subject role of the active or passivized verbal base.**
Under the analysis sketched above, these compounds
would have to be derived from syntactic phrases, in
violation of the lexicalist hypothesis.

3. nominalizations: *unpersuadedness*, *unpreparedness*...

Again, the nominalization would have to have a syntactic phrasal base, in violation of the lexicalist hypothesis:



If you try to push the morphology down one layer further, by making NP movement happen with the already nominalized head—



—you run into problems with the mismatch between the syntax of N and A. E.g. *the unpreparedness of Governor Bush* we find an NP complement where we want to move the null Op from.