

The Reversible Core of ObjExp, Location, and Govern-type Verbs

Michael Wilson, University of Massachusetts Amherst

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Linking Theories

The Uniformity of Theta-Assignment Hypothesis (UTAH) [1]: thematic roles determine arguments' positions.

Example: THEME → Comp,VP

The Universal Alignment Hypothesis (UAH) [2]: thematic roles determine arguments' relative positions.

Example: AGENT < THEME

Linking Problems and Solutions

The Causative/Inchoative Alternation:

- (1) a. The sun melted the ice. b. The ice melted.

Problem (for UTAH): THEME occurs in two different positions.

Solution: More complex syntax → unaccusative hypothesis [3]:

- (2) The ice melted *t*.

The Dative Alternation:

- (3) a. John sent a book to Mary. b. John sent Mary a book.

Problem (for U(T)AH): GOAL occurs below and above THEME.

Solution: More complex semantics → [e.g., 4, 5]

(3a)'s goal = (LOCATIVE) GOAL · (3b)'s goal = RECIPIENT

Another Linking Problem

The eventive/stative alternation [6, 7, 8, 9]:

- (4) **Object Experiencer Verbs:**
a. John is (deliberately) amusing Bill. (Eventive)
b. John's appearance amuses Bill. (Stative)
- (5) **Location Verbs:**
a. John covered the screen. (Eventive)
b. The blanket covered the screen. (Stative)
- (6) **Govern-type Verbs:**
a. John protected the gem with a laser grid. (Eventive)
b. A laser grid protected the gem. (Stative)

Problem (for UTAH): subjects bear different thematic relationships to the verb in (a) vs. (b), despite appearing in the same structural relationship to it.

Problem (for UAH): *with*-phrase referent is below object in (6a) but appears as subject above object in (6b), despite having the same thematic relationship to the verb and object:

- (7) a. John protected every gem_i with its_i laser grid.
b. *John protected its gem_i with every laser grid_i.
- (8) Every laser grid_i protected its_i gem.

Solution: More complex syntax → reversible verbs

Contact Information

Poster online at: rebrand.ly/mwilsonNELS2018

Web: blogs.umass.edu/michaelwilso

Email: mawilson@linguist.umass.edu

Observation 1: Optional *With*-Phrases

ObjExp, location, and *govern*-type verbs may all occur in eventive uses with a *with*-phrase.

An eventive sentence with a *with*-phrase entails a stative sentence with the *with*-phrase as its subject.

- (9) **ObjExp:**
John amused Bill with his antics. ⇒
John's antics amused Bill.
- (10) **Location:**
John covered the screen with the blanket. ⇒
The blanket covered the screen.
- (11) **Govern-type:**
John protected the gem with a laser grid. ⇒
A laser grid protected the gem.

Observation 2: Eventive ⇒ Stative

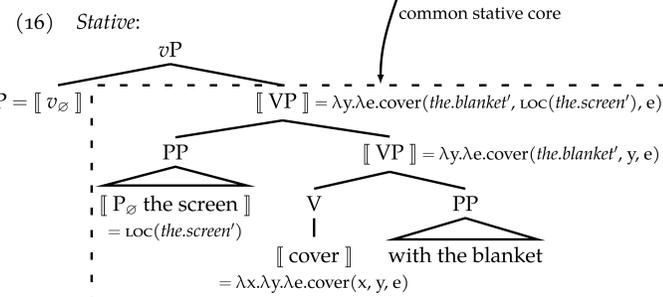
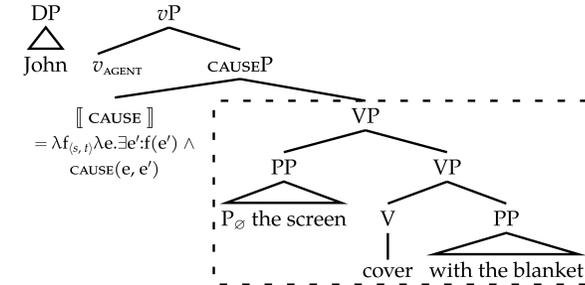
Eventives with *with*-phrases entail statives with that *with*-phrase as subjects (see above).

Eventives without a *with*-phrase entail statives with existentially bound subjects.

- (12) **ObjExp:**
John was amusing Bill. ⇒
Something amused Bill.
- (13) **Location:**
John covered the screen. ⇒
Something covered the screen.
- (14) **Govern-type:**
John quickly protected the gem. ⇒
Something protected the gem.

Key Idea: Stative ⊂ Eventive

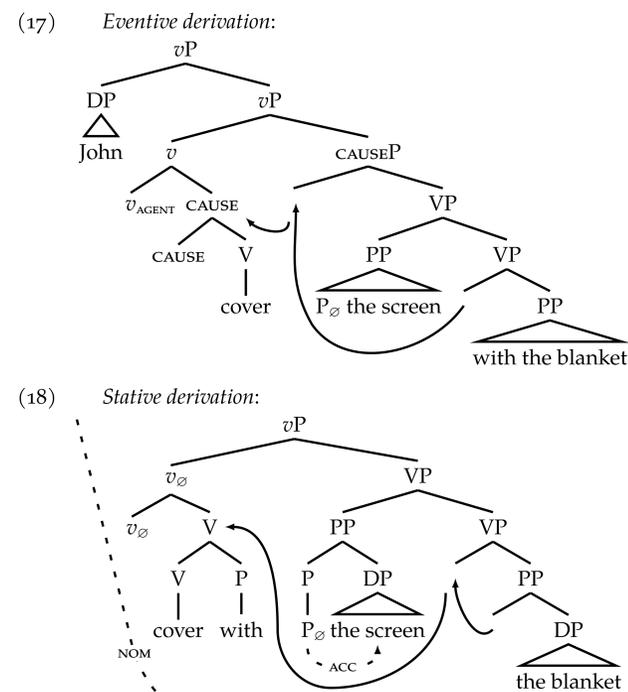
- (15) **Eventive:**
[[vP]] = λe.∃e'.[[VP]](e') ∧ CAUSE(e, e') ∧ AG(e, John)



Deriving the Surface Orders

Spell out rules:

- [CAUSE cover] → "cover" (eventive) (17)
[cover with] → "cover" (stative) (18)



P_∅ = Abstract locative P

Landau [9]: experiencers have locative syntax, are introduced with an (often null) preposition. Semantically, they can be thought of as abstract, mental locations.

- (19) John annoyed Bill. ≈
"John caused annoyance to be at Bill."

Idea: location and *govern*-type verbs are the same. Location verbs encode a relation between the *with*-phrase referent and the location of the object.

- (20) John covered the screen with the blanket. ≈
"John caused the blanket to lay on the screen."

Govern-type verbs encode an abstract locative relation, like with ObjExp verbs:

- (21) John protected the gem with a laser grid. ≈
"John caused the protection of a laser grid to be over the gem."

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Reversible Verbs and Backwards Binding

In the stative derivation (18), the lower DP "reverses" over the object to appear in subject position. Independent evidence comes from backwards binding (BB) [5, 9, 10, 11]. Known to occur with ObjExp verbs, but only in stative uses [9, 10].

Not previously noted: BB extends to location and *govern*-type verbs, and again only for eventive and not stative uses.

- (22) **Non-Reversible Verbs:** *BB
a. *Enemies of each other_i killed the men.
b. *His_i friend washed every boy_i's car.
- (23) **Eventive:** *BB
a. *Each other_i's friends deliberately annoyed the party-goers_i by blowing smoke in their faces. (ObjExp)
b. *A copy of itself_i quickly covered every robot_i with a sheet. (Location)
c. *His_i advisors protected every regent_i with a bodyguard. (Govern-type)
- (24) **Stative:** ✓BB
a. Each other_i's fans annoy the musicians_i. (ObjExp)
b. A picture of itself_i covered every pail_i. (Location)
c. Its_i own thick skin protects every whale_i. (Govern-type)

In stative uses, the object initially c-commands the subject. In eventive uses, the subject always c-commands the object.

Two Faces of *With*

With-phrases in the eventive/stative alternation behave similarly to those in the instrument/subject alternation *prima facie*.

- (25) a. John covered the screen with the blanket. →
The blanket covered the screen. (Reversible, END *with*)
b. John opened the door with the key. →
The key opened the door. (Instrument, MEANS *with*)

But these are not the same. With both, only END < MEANS.

- (26) a. John covered the hole [with the dirt] [with the shovel].
b. *John covered the hole [with the shovel] [with the dirt].

TWO MEANS *with*s cannot occur together, and nor can two END *with*s, but the combination is possible in (26a).

- (27) a. TWO MEANS *with*s:
*John covered the hole [with the shovel] [with the forklift].
b. TWO END *with*s:
*John covered the hole [with the sheet] [with the dirt].

Finally, MEANS *with*s do not occur as subjects of reversible verbs:

- (28) John covered the hole with the shovel. ↯
*The shovel covered the hole. (under a MEANS *with* reading)

Eventive/stative alternation ≠ instrument/subject alternation

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