

## Quantifier Raising, the Semantics of “Again” and the Complexity of Verb Phrases.

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**The Controversy** : The semantic complexity of declarative sentences with transitive verbs is surprisingly controversial when complexity is measured in terms of the number of propositional levels within a VP. (I will assume that propositions are the semantic type normally associated with complete sentences). Many semanticists (perhaps best exemplified by Davidson, 1966) propose theories with a simple representation; subjects and objects serve as arguments to the verb and there are no propositional levels below the point where the subject combines with the verb and object. Others, such as Parsons (1990), hypothesize agent and theme operators that serve to connect the subject and object to the event associated with the verb. In such theories the verb is not inherently connected to its so-called arguments, thus suggesting a multiplicity of possible propositional levels; one for the verb, one for the subject; a third for the object; and various concatenations thereof. Still others, such as Kratzer (1996), stake out an intermediate position where the verb and its object form a propositional constituent, but neither the object nor verb is propositional.

**The Proposal**: In this talk, I will focus on the propositional complexity of sentences with transitive verbs. I propose that stative, transitive verbs combine with their objects and subjects without forming any intermediate propositional levels. Such a proposal fits nicely with the simple view of transitive verbs associated with Davidson. However, I also claim that non-stative, transitive verbs do form at least one intermediate propositional level, namely at the point where the verb combines with its object. Thus, such constructions are more akin to the type of complexity outline in Kratzer's proposal. In essence, my theory maintains a dichotomy in the representation of sentences with transitive verbs, one where propositional complexity is associated with the stative versus non-stative distinction.

**The Evidence**: The main source of evidence for my theory comes from the distributional and semantic characteristics of the modifier *again*. Such a modifier has a long history of being used to argue for propositional complexity in simple transitive sentences. Generative Semanticists such as McCawley (1976) and those influenced by this tradition (von Stechow, 1996) often note the repetitive vs. restitutive interpretation of sentences such as (1a) (compare the presuppositions introduced by *again* in 1b vs. 1c). Under such analyses, the presupposition in (1c) is considered to be evidence for an underlying proposition embedded in the VP. Such observations were originally used to argue for syntactic complexity in the “lexical” verb (see Dowty, 1979 for discussion).

- (1) a. *The shuttle entered the earth's atmosphere again.*  
b. **Repetitive presupposition**: The shuttle entered the earth's atmosphere before.  
c. **Restitutive presupposition**: The shuttle was in the earth's atmosphere before.

Unlike this tradition, the evidence that I will be considering only involves repetitive readings. However, as I demonstrate, there is still an ambiguity between whether the subject of the verb must be involved in the presupposition or not. For example, the sentence in (2a) does not fit into the paradigm of a restitutive versus repetitive reading. Yet, (2a) nonetheless demonstrates an ambiguity in terms of its presuppositions. The sentence can be understood as having either the subject-included presupposition in (2b) or the subject-excluded presupposition in (2c). Unlike (2a), a sentence with a stative verb such as (3a) demonstrates no such ambiguity. The only presupposition that is available is the subject-included presupposition in (3b).

- (2) a. Seymour hugged Esme again.

- b. **Subject-included presupposition:** Seymour hugged Esme before.  
**Context:** Seymour hugged Esme and then hugged her again.
- c. **Subject-excluded presupposition:** Esme was hugged before (not necessarily by Seymour).  
**Context:** Jane, Seymour's wife, hugged Esme, their daughter, in order to comfort her. To double the effect, Seymour hugged Esme again.

- (3) a. Seymour loves Esme again.
- b. **Subject-included presupposition:** Seymour loved Esme before.  
**Context:** Seymour loved Esme and then hated her. But then he loved her again.
- c. **Unavailable subject-excluded presupposition:** Esme was loved before (but not necessarily by Seymour).  
**Context:** Jane, Seymour's wife, loved Esme as a baby. However as a teenager Jane hated Esme. Nonetheless, Seymour grew to love Esme as a teenager although he never loved her before.

By establishing that *again* attaches to phrases that are semantically propositional and by demonstrating that the presupposition that *again* introduces is determined by its syntactic complement, I argue that the contrast between (2) and (3) is the result of propositional complexity. The sentence in (2) is complex whereas the sentence in (3) is simple.

**Consequences:** Such results provide an interesting testing ground for Quantifier Raising (QR). It has long been assumed that QR raises Quantified NPs to a propositional level (see May 1977). However, there has been very little evidence concerning how low in the sentence the quantified NP can attach. (Negation has usually served as a test for how high in the sentence the quantifier can move.) Evidence from the *again* modifier suggests that Quantified NPs in the object position cannot take scope before the subject combines with the VP predicate, even when a suitable propositional level is available. For example, (3a) will not allow the presupposition where *again* scopes under the subject but still scopes over the quantified NP *two children*. Such results present a problem for theories of movement that incorporate a Shortest Move constraint.

- (4) a. Seymour hugged two children again.
- b. **Subject-included presupposition:** Seymour hugged two children before.  
**Context:** Seymour hugged two children and then he hugged another two.
- c. **Unavailable subject-excluded presupposition:** Two children were hugged before, although not necessarily by Seymour.  
**Context:** Jane hugged two children, then Seymour hugged another two children.

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