

Heycock's anti-reconstruction puzzle and similarities between CPs and indefinites

Intro. I explore the contrast in the behavior of definite and indefinite DPs w.r.t. syntactic reconstruction, which I call Heycock's puzzle. I propose that indefinites in object position by default behave as predicates and definites behave as referential expressions. I propose that this contrast controls the availability of late merge inside fronted constituents and bring evidence in favor of this proposal by showing that it allows for a uniform account of indefinites and CPs.

Heycock's puzzle. Fronted predicates are known to exhibit Condition C effects when they contain an R-expression that is co-indexed with a pronoun in the matrix subject position. This is why fronted predicates have been argued to obligatorily reconstruct at LF [Huang, 1993].

(1) *Criticize a student that John₁ taught, he₁ said Mary did. [Takano, 1995]

However, one nagging problem for this account was pointed out by [Heycock, 1995], who observed that a sentence like (2) is grammatical:

(2) Criticize the student that John₁ taught, he₁ said Mary did.

If fronted VPs reconstruct at LF, as has been suggested for (1), then why wouldn't the same occur in (2)? The only difference between (1) and (2) is the determiner. Somehow, the definite description in (2) allows for an obviation of the disjoint reference effect inside the fronted predicate, while this is not possible if the direct object is indefinite. I call this Heycock's puzzle.

[Heycock 1995] proposes an account in terms of covert movement of the definite description. According to this account, fronted predicates reconstruct, but definites can exceptionally scope out of the domain of the main subject. [Sportiche 2006] explores this approach and points out some difficulties concluding that more research in this area is required (p. 83).

To my knowledge, no further advance has been made w.r.t. Heycock's puzzle, at least in so far as the movement analysis is concerned. Perhaps, it has been difficult to find a plausible kind of covert movement that would have the required properties. Heycock's proposal stipulates that the movement in question is available for definites, but not for indefinites (since (1) is ungrammatical). But what difference between definites and indefinites could explain this?

Shifting the perspective on the problem. I propose a complete change of perspective onto Heycock's puzzle. A whole corpus of literature on anti-reconstruction starting at least with [Lebeaux 1988] teaches us that adjuncts (or, more broadly, modifiers) can be late-merged allowing for an obviation of Condition C effects. If so, then it should come as no surprise that (2) is grammatical: we can construe the embedded relative clause inside the definite description as late-merged (this would be a case of a deep late merge). What is surprising then is why the same story cannot apply to (1). Why is the option of late merge not available for an indefinite object inside a fronted VP? Now the problem of the contrast between (1) and (2) is not why (2) is grammatical, but, rather, why (1) is not.

Proposal. I adopt Huang's proposal that fronted predicates obligatorily reconstruct at LF and claim that the late merge of a modifier is not allowed inside a fronted predicate. I provide examples (3) and (4), which illustrate this idea independently:

- (3) a. Arrive when he₁ was not at home, John₁ said they did.
b. *Arrive when John₁ was not at home, he₁ said they did.
- (4) a. Leave without her₁, Mary₁ said you never would.
b. *Leave without Mary₁, she₁ said you never would.

In (3) and (4), we are dealing with fronted VPs that consist of a verb modified by an adjunct. An R-expression co-indexed with the matrix subject triggers the Condition C effect.

I propose to derive the contrast between (1) and (2) by treating the indefinite in (1) as having a default predicative interpretation and the definite in (2) as a referential expression.

I propose that, in object position, indefinites have a predicative interpretation by default. If so then the indefinite in (1) is created by the intersection of two predicates *student* of type $\langle e, it \rangle$ and *that John taught* (also of type $\langle e, it \rangle$). (The indefinite determiner *a* is either invisible (as proposed in [Heim & Kratzer 1998]) or it is understood to be an identity function of type $\langle \langle e, it \rangle, \langle e, it \rangle \rangle$.) This view extends to weak DPs in general, which reveal the same behavior.

As a predicate, the complex indefinite in (1) combines with the verb *criticize* by Restrict [Chung & Ladusaw 2003], which is followed by Existential Closure of the internal argument slot on the verb. (See [McNally & van Geenhoven, 1997] for a similar analysis of the interaction between indefinites and verbs that take them as arguments.) The fronted VP in (1) is thus construed as consisting of three predicates that are either intersected or combined by Restrict. If so, then (1) can be viewed as patterning with (3) and (4).

The definite description in (2) is, by default, a referential expression. For this reason, the fronted VP in (2) does not represent a case of three predicates that are restricting or intersecting each other. The definite determiner provides a layer of referentiality that requires an analysis that is different from the one applied to the fronted VPs in (1), (3), and (4). In (2), the verb is taking the DP as its argument (by Function Application). I propose that, in such a configuration, Late Merge of the relative clause is allowed. For this reason, (2) is grammatical.

Complement CPs as modifiers and their similarity with indefinites. More can be said about indefinites in object positions as predicates by default than just the observation that this analysis allows us to explain the fact that (1) patterns with (3) and (4). I provide more indirect evidence in support of this hypothesis by drawing parallels between indefinites and CPs.

[Kratzer 2006] proposed that complement CPs are modifiers of attitude verbs and not their arguments. According to Kratzer, quantification over possible worlds in an attitude report comes from the CP and not from the attitude verb. [Moulton 2009, 2015] explores further evidence in favor of this approach. Treating CPs as modifiers provides a uniform treatment of attitude predicates and has a number of other advantages. However, some aspects about this approach remain unclear. If CPs are modifiers, then why cannot they be iterated like all other modifiers? If they are of predicative nature (as all modifiers are), then why doesn't their fronting require an obligatory reconstruction at LF? Instead, CP fronting bleeds Condition C and leaves a trace of a referential type [Alrenga 2005; Takahashi 2010].

I show that, as far as (anti)-reconstruction effects are concerned, CPs pattern with indefinites. I believe that this allows us to shed more light on the nature of indefinites as well as CPs.

Observe in (5) that when a CP is in complement position inside a fronted VP, it triggers Condition C effects. But under CP fronting, Condition C effects are obviated as shown in (6).

(5) *Say that Mary₁ arrived on time, she₁ did. (6) That Mary₁ won, she₁ said yesterday.

This is exactly the same behavior that we observe with indefinites. In object position inside a fronted VP, they trigger Condition C, as illustrated by (1), but fronted indefinites obviate it:

(7) A student that John₁ taught, he₁ said that Mary criticized.

Just like CPs, indefinites in object position cannot be iterated. When fronted, indefinites leave a trace of a referential type [Poole 2018]. This parallelism invites a uniform analysis.

[Kratzer 2006] proposes that complement CPs combine with attitude verbs by Restrict. This is exactly the same kind of analysis that I proposed for indefinites in object position in order to account for Heycock's puzzle and explain the fact that (1) patterns with (3) and (4). It then comes as no surprise that complement CPs inside fronted VPs also trigger Condition C effects (as illustrated in (5)).

Both CPs and indefinites are not exactly identical to other modifiers because, under fronting, their behavior is different from the behavior of predicative modifiers. Unlike fronted predicates, fronted CPs and indefinites obviate Condition C effects (see (6) and (7)). Thus, CPs and indefinites seem to lead the same kind of double life, being like predicates in object positions and not like predicates in fronted ones.