PB-13　　　　　　　**ECM, Raising-to-Object, or None of the Above?**
Pettiward's (1998) Challenge Revisited

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Abstract: I revisit Pettiward's (1998) observation regarding unexpected higher binding/licensing effects in ECM configurations, which undermine the Raising-to-Object theory of the subject of the ECM infinitive, but have been largely been ignored in the literature. I refine Pettiward's approach based on restructuring and argue that the so-called ECM construction involves a monoclausal structure so that both its subjects and non-subjects enjoy matrix status. My analysis not only accounts for the higher binding/licensing effects but also correctly predicts the inverse scope of the embedded object quantifier with respect to the matrix subject quantifier in ECM structures. My analysis implies that the infinitival *to* resides in a head lower than the T head, a position that is supported by its relative ordering with respect to negation and facts from VP-ellipsis. There is no ECM or Raising-to-Object in English.

Keywords: ECM, raising-to-object, monoclausality, infinitival marker to, scope, restructuring, VP-ellipsis

1. Introduction

Whether Raising-to-Object (hereafter, RtO) exists or not as a real operation in English grammar has been one of the most contested issues in the framework of Generative Grammar (see Postal 1974, Chomsky 1981, Johnson 1991, Lasnik and Saito 1991, Runner 1995, 1998, Lasnik 1999, and many other references cited therein). However, it seems not reasonably contestable that higher binding/licensing effects (e.g., Conditions (A) and (C) of Binding Theory/negative polarity licensing) have been commonly taken in the field as supporting evidence for RtO. For example, (1a) (with a subject in the infinitival ECM complement of the verb *believe*) patterns with (1b) (with a regular direct object of the same verb when it selects a DP complement), not with (1c) (with a subject in the finite clause complement of the verb), with respect to Condition (C) effects.

(1) a.?* Joan believes him$_i$ to be a genius even more fervently than Bob$_i$'s mother does.

　　b.?*Joan believes him$_i$ even more fervently than Bob$_i$'s mother does.

　　c.　Joan believes that he$_i$ is a genius even more fervently than Bob$_i$'s mother does.

　　　　　　　　　　　　　　　　　　　　　　　　(Lasnik and Saito 1991:327, 328)

In this paper, I would like to call attention to the almost forgotten literature – Pettiward (1998) – in which empirical issues of immediate relevance to the RtO vs. ECM debate were discussed and argue for a monoclausal theory of the so-called ECM construction in English.

2. Pettiward's (1998) Challenge Revisited: Monoclausality of English "ECM Constructions"

Pettiward (1998) observes that even non-subject elements within an infinitival ECM clause exhibit higher binding/licensing effects on a par with subjects in the same clause, as shown in (2a, b), even though their Case requirements are satisfied within the embedded clause without recourse to RtO. In these examples, the pronoun in the direct object position of the ECM clause exhibits a Condition (C) violation.

(2) a. *? Joan expects the DA to acquit him$_i$ even more confidently than Bob$_i$ does.
      b. *? Someone was proven to have murdered him$_i$ during Bob$_i$'s postmortem.

(Pettiward 1998:557, 558)

Note, by way of comparison, that the pronoun within the finite clause complement of the same verbs does not exhibit these effects, as shown by the grammaticality of (3a, b).

(3) a.   Joan expects that the DA will acquit him$_i$ even more confidently than Bob$_i$ does.
      b.   It was proven that someone had murdered him$_i$ during Bob$_i$'s postmortem.

(Pettiward 1998:557, 558)

Pettiward's observation noted above has largely fallen on deaf ears despite its potentially significant impact on syntactic theory, a point that cannot be emphasized enough. There are two possible approaches to the ECM paradigm outlined by Pettiward herself – *th*-binding (Williams 1994) and restructuring (Rizzi 1982). Of these two approaches, I will refine the second approach below and propose that the so-called ECM construction in English involves a monoclausal structure so that both ECM subjects and non-subjects may enjoy matrix status without postulating the RtO operation; see also Evers (1975) for a clause-union analysis of ECM constructions in Dutch based on clustering effects of weak pronouns. According to this analysis, all expressions within the infinitival clause of the verb *believe* are located within the matrix clause because the matrix TP is not separated from the "infinitival" clause by any clausal boundary. I will come back to the exact identity of the infinitival clause (if not the TP) later in this paper.

My proposed analysis not only accounts for the critical data in (2a, b). It also correctly predicts that the "embedded" object quantifier may scope over the "matrix" subject quantifier, as shown in (4a) (Sakamoto 2022; see also Kennedy 1997 and Fox 2000), on a par with (4b) (with a quantified subject in the infinitival clause), but not with (4c, d) (with a quantified subject or an object in the finite clause).

(4) a.   Some boy believes Sue to know everyone.   ($\forall >> \exists$)

   b.   Some boy believes everyone to know Sue.   ($\forall >> \exists$)

   c.   Some boy believes that Sue knows everyone.   (*$\forall >> \exists$)

   d.   Some boy believes that everyone knows Sue.   (*$\forall >> \exists$)

The scope contrast between (5a, c) and (5c) below illustrates the same observation in favor of the monoclausal syntax of so-called ECM constructions in English.

(5) a. Some travel writer has visited every country, so they all somehow got together to exchange ideas.   ($\forall >> \exists$)

   b. Some travel writer expects Sue to visit every country, so they are all planning to get together to meet her.   ($\forall >> \exists$)

   c.#Some travel writer expects that Sue will visit every country, so they are all planning to get together to meet her.   (*$\forall >> \exists$)

<div align="right">(Michael Barrie, personal communication, 07/11/2023)</div>

3.   Theoretical Implications: No RtO, No ECM, Just Monoclausal Syntax

The results obtained above have two theoretical implications. One implication, already noted by Pettiward but largely ignored thus far in the field, is that the results undermine the RtO approach to the English ECM construction pioneered by Postal (1974) and its more recent renditions as in Lasnik and Saito's (1991) Agre-based Case theory. In fact, there is no evidence for RtO in English. The other implication is that the so-called ECM construction in English involves not the TP headed by the infinitival marker *to* but some smaller verbal projection, thereby instantiating monoclausal syntax or possibly a restructuring configuration (Wurmbrand 1998, 2001).

It is important to always remember that Chomsky's (1981) GB-style ECM analysis, in fact, was only driven by theory-internal considerations such as Case assignment under government, a precept no longer available in contemporary minimalist practice. In fact, there are a number of works (Travis 1994, 2000; Wurmbrand 1998, 2001; Boeckx 2000; see also Cowper and Hall 2001 and Hasegawa 2014) arguing against the commonly held analysis of the infinitival marker *to* as heading the infinitival TP. For example, Travis (1994, 2000) argues that the infinitival marker *to* heads a lower functional projection, which she equates with an event phrase included within the VP, on the ground that it appears after negation, as shown in (6a).

(6) a.   John tried not **to** win.   (sentential negation)

   b.   John tried **to** not win.   (constituent negation)

Note that the infinitival marker *to* may also occur before negation, as shown in (6b). Travis assumes that this use of *to* instantiates constituent negation. Wurmbrand (1998, 2001) shows that Travis's treatment of *to* as the head of some VP-internal projection, not the TP, receives independent support

from examples involving interaction of VP-ellipsis with the position of *to* vis-à-vis negation. Consider examples in (7a, b).

(7) a. John tried to win the game but Mary tried not **to** (in order to make him happy).
  b. * John tried to win the game but Mary tried **to** not.
  c. John tried to win the game but Mary did not.

(Wurmbrand 2001:114)

The contrast between (7a) and (7b) shows that when the infinitival VP is to be elided, the infinitival marker *to* must follow negation. Note that the impossibility of VP-ellipsis in (7b) cannot be blamed on the stranded negation in the clause-final position, for such a negation is, in principle, allowed in a finite VP-ellipsis context, as shown by the grammaticality of (7c). Wurmbrand instead suggests that the impossibility of VP-ellipsis in (7b) is derived if constituent negation requires some focus that cannot be realized by a phonologically empty phrase. Alternatively, the contrast between (7a) and (7b) is equally accounted for if constituent negation is a proclitic along the lines suggested by Boeckx (2000) (who, in turn, attributes this observation to Željko Bošković (personal communication)).

The point here is that there is independent reason to suspect that the infinitival marker *to* is situated not in T but in some lower VP-internal functional head such as an event phrase. This analysis opens the door to the new analytical possibility that the infinitival complement of ECM verbs such as *believe*, *expect* and *prove* actually instantiates a rather run-of-the-mill monoclausal V-*v*P configuration on a par with causative and perception verbs (e.g., *Rosa {had/saw} me clean her office.*)

4. Conclusions

To conclude, I have revisited Pettiward's (1998) observation regarding unexpected higher binding/licensing effects and have added new scope data as in (4, 5). These examples not only significantly undermine the traditional RtO-based approach to ECM in English. In fact, they also indicate that upon closer scrutiny, the derivation of the so-called ECM construction in English has nothing to do with ECM or RtO, contrary to what one might think given the way the debate has been framed in the generative literature since early 1990s.

Instead, I have argued that the construction is simply associated with a monoclausal syntactic structure. What looks like the infinitival TP in the construction is actually verbal in nature, with the infinitival marker *to* instantiating some lower functional projection such as an event phrase (Travis 1994, 2000), a position independently supported by data having to do with close interaction of VP-ellipsis with *to* under sentential vs. constituent negation (Wurmbrand 1998, 2001).

All in all, the debate as to the proper analysis of the so-called ECM construction (ECM or RoT) in English, a debate that has been running among generative syntacticians up until now for almost 50 years, is simply misplaced. There is no ECM or RtO in English.

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