

Extended EPP: A New Approach to English Auxiliaries and Sentential Negation

Elise Newman, MIT

The puzzle: The syntactic position of sentential *not* and its complex interactions with the English auxiliary system remains an open problem. This talk develops a new analysis of these interactions that answers several key questions, including (a) why sentential *not* triggers *do*-support, (b) why *do*-support in T is impossible without sentential negation or emphasis (e.g. **I did go to the store yesterday.* vs. *But mom, I DID eat my vegetables, I promise!*), (c) why auxiliaries move, (d) how *n't* differs from *not*, and (e) why the orders *not to* and *to not* are possible in infinitival clauses, but only *aux not* is possible in finite clauses.

Proposal: The core of my analysis is an extension of the EPP and a particular claim about the EPP properties of T:

Extended EPP (EEPP): If a probe on a head H has an EPP property and probes for F, the EPP property may be satisfied in one of two ways:

- a. via movement of a goal bearing F (x^F) to H, or
 - b. without any movement, if the goal bearing x^F is the complement of H
- (cf. Pesetsky and Torrego 2001)

EEPP property of T: T has both a *tense probe* and a *negation probe* with the EEPP property.

Questions a-b: This proposal explains not only the classic properties described by Chomsky (1957), but also provides answers to questions (a) and (b) above. In particular EEPP has particularly interesting consequences for *do*-support, which I propose is a realization of failed agreement.

1. Mary did not walk. (from: *Mary T not walk.*)

In 1, *not* is the head of NegP and satisfies EEPP without movement for T's negation probe, since it heads T's sister. However, T's tense probe is not satisfied because main verbs do not move (a stipulation shared with standard proposals) and T's sister is headed by negation, not tense. Therefore, *Agree* fails for the tense probe, and *do* is inserted as a realization of failed agreement (cf. Preminger 2011).

Questions c-e: The fact that infinitival sentences permit the order *not to* but finite clauses show only *aux not* (question (e)) argues for a model with EEPP.

2. For Mary not to do her homework would be shame.
3. *Mary not has gone to the store today.

Since *to* is an instance of T, *not* can satisfy EEPP either by remaining in NegP as the head of T's sister (clause b of EEPP) or by head-moving to T (clause a). Following Matushansky (2006), head movement first forms a normal specifier, and then undergoes *m-merger* with its host. In this view, when *not* moves to T, it first forms a specifier and then *m-merges*, yielding the order *not to*. In a finite sentence with an auxiliary and sentential negation, T sees negation first and either moves it to T or lets it stay in NegP. Next T finds the auxiliary verb (if there is one) or inserts *do* (if agreement fails). In the case where *not* remains in NegP, auxiliary movement to T yields the order *aux not*. Crucially, even if *not* moved to T, we still see the order *aux not*, because of locality: T finds, moves and *m-merges* negation first, and finds, moves and *m-merges* *aux* second, an ordering that places *aux* outside *not* in the T-word. I propose that the result of an auxiliary *m-merging* to *not* is the contraction *n't* (question (d)).