

Extrapolation as PF movement

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This paper discusses extraposition (EX) in English from object (1a) and subject (1b). The main claim is that EX is a PF operation and that restrictions on EX can be stated in phonological terms. EX is often analyzed as a focus construction (Rochemont 1986, Huck & Na 1990) in which a focused PP or heavy relative/complement clause is displaced in overt syntax. Yet EX exhibits properties that are fundamentally different from leftward A'-movement: extraction is possible from syntactic islands, it is clause-bound, and neither the heaviness requirement, nor the focus condition applies to many examples (2). Furthermore, in broad focus contexts EX is generally optional, as is EX of defocused constituents. Within current Minimalist Syntax, EX cannot be accounted because displacement of constituents requires well-defined triggers which necessarily correlate with interpretive effects (e.g. topic, focus). A syntactic trigger invoking focus cannot be evoked, though. Alternative analyses, like merger of the extraposed constituent in its surface position (Rochemont & Culicover 1997), face serious problems for the compositional interpretation of adjunction structures. In fact, Chomsky (1986, 1995, 2005) has excluded EX from the core cases of syntactic phenomena and proposed that it is an instance of PF movement. This hypothesis, however, has never been fully investigated and it is the aim of this paper to present an account of PF movement which can capture both grammatical and ungrammatical cases of EX.

This paper proposes that the only constraints needed for an account of EX are constraints that are independently needed for an account of phonological structure in English. The level of phrasing at which EX constructions are evaluated is the level of the major phonological phrase (MaP), aka intermediate phrase. The analysis is couched within an OT framework integrated on the PF side of a Minimalist Grammar (Selkirk 2001, López 2006).

I assume that the phonological structure of a sentence is the direct consequence of the cyclic Spell-Out of syntactic structure in terms of phases (vP, CP), and a phase in syntactic structure corresponds to a MaP in phonological structure (Selkirk & Kratzer 2005). A (transitive) verb phrase and the subject are therefore mapped directly to separate MaPs. An unaccusative or passive construction is mapped to one phrase. MaPs may have to restructure under certain conditions (e.g. narrow focus), which destroys the phase-based derived phonological structure and violates OO-Faithfulness (3). The essence of optional EX is as follows: From the phase-based derived syntactic output (4a/5a), the Generator generates a set of candidates consisting of syntactic and prosodic structures (4a-c/5a-c), which are evaluated in parallel. Candidates (a) violate Align_R XP twice because the complex DPs contain two NPs requiring alignment. Candidates (b) violate Max_{OO} , whereas candidates (c) Align_R XP once. Optional phrasing is accounted in Selkirk (2000) by having Align XP same-ranked with Wrap XP. In this approach it is same-ranked with Max_{OO} . Evaluation against the interface constraints results in two optimal candidates (b & c). The account crucially relies on the possibility of movement at PF, an operation which can only adjoin constituents to syntactic projections that are visible at PF. Since interface constraints like Align XP apply to (extended) lexical projections (vP, nP), adjunction at PF only sees the edges of these constituents. Since alignment of phrasal boundaries is always with right edges of syntactic constituents in English, movement at PF is also rightward.

Finally, a constraint-based account can also deal with 'long' movement across a complex adjunct in a separate MaP (6a) and restrictions on 'short' movement out of a single MaP. It will be argued that the focus prominence constraints (Selkirk 2004) are responsible for the ungrammaticality of (6b).

- (1) a. He sold a painting at Sotheby's *by Turner*.
 b. A new book appeared last year *about Turner*.
- (2) No information was given *on it / on the subject*.
- (3) MAX_{OO}
 Every MaP derived by syntactic Spell-Out corresponds to a MaP in phonological structure.
- (4) a. (He sold a painting by Turner at Sotheby's)_{MaP}
 b. (He sold a painting by Turner)_{MaP} (at Sotheby's)_{MaP}
 c. (He sold a painting at Sotheby's)_{MaP} (by Turner)_{MaP}
- (5) a. (Pictures of every terrorist will be distributed)_{MaP}
 b. (Pictures of every terrorist)_{MaP} (will be distributed)_{MaP}
 c. (Pictures will be distributed)_{MaP} (of every terrorist)_{MaP}
- (6) a. (I read a magazine)_{MaP} (two or three days ago)_{MaP} (about Turner)_{MaP}
 b. ??(I read a magazine carefully) (about Turner)

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