A Phase-based Approach to Scandinavian Definiteness Marking

1. Proposal: Definiteness marking in Swedish and Danish DPs has been analyzed by Embick & Noyer (2001) and Hankamer & Mikkelsen (2005) as involving a competition of two strategies (DEF on N, DEF on D, with a (near-) complementary distribution) that is resolved by constraint ranking and blocking, respectively. In this paper, we argue for a derivational, minimalist analysis that relies on feature movement to the edge of a DP phase.

2. Data: In Swedish DPs, definiteness is marked by a suffix on N if there is no pre-nominal A, and by co-occurrence of a suffix on N and an inflected D if an A shows up (*mus-en* 'DEF mouse', *den gamla mus-en* 'DEF old mouse-DEF'). Inflected (non-demonstrative) D cannot be present if there is no A, and both DEF markers are obligatory if a prenominal A shows up; cf. **den mus* 'DEF mouse' vs. **gamla mus-en, *den gamla mus* 'old mouse-DEF', 'DEF old mouse'. The situation in Danish is similar, with one difference: If A (hence, D) is present, there can be no definiteness marker on N; so, next to the expected pattern *hest-en* 'horse-DEF', **den hest* 'DEF horse', **gamle hest-en* 'old horse-DEF', we find *den gamle hest* blocking **den gamle hest-en*.

3. State of the Art: Based on Delsing (1993), Embick & Noyer (2001) develop an analysis that envisages two strategies for definiteness marking in Scandinavian: (i) N-to-D movement; and (ii) d-support in D plus post-syntactic adjunction of a [def] feature to N. The two strategies are assumed to be in competition; their choice is determined by a set of six constraints. We show that the analysis relies on conflict resolution via constraint interaction (Prince & Smolensky (2004)): Closer inspection reveals crucial rankings among the relevant constraints, with minimal reranking between Swedish and Danish. The analysis in Hankamer & Mikkelsen (2005) is also competition-based. There is a rule $\mathbb{D}$ that converts Ns to definite Ds in the lexicon; alternatively, definite D and N can combine to form a DP in the syntax. The Danish pattern follows if the lexical N→D rule is incompatible with the presence of A, and the lexical strategy is preferred to the syntactic strategy (blocking; DiSciullo & Williams (1987), Ackema & Neeleman (2004)).

4. Analysis We develop a minimalist analysis of Scandinavian definiteness marking that minimizes constraint ranking and does without blocking. The basic assumptions are that [def] starts out as a feature of N (not D), and that DP is a phase (Svenonius (2004), Heck & Zimmermann (2004)). A [def] feature of N must be accessible to items outside the DP, for checking/valuation by a matching probe on a DP-external head (v, T). The Phase Impenetrability Condition (PIC; Chomsky (2001; 2005)) then requires [def] to be part of DPs edge. Assuming a recursive extension of Chomsky's notion of edge such that a head (but not an XP) can be at the edge of a phase π if there is no intervening non-edge material, N-[def] is accessible outside DP if there is no intervening adjective. This accounts for the first strategy (*mus-en*): [def] is realized post-syntactically in the unique position in which it appears. If, however, a prenominal A is present, N-[def] is not at the edge of DP anymore; but [def] must be accessible from outside of the DP phase. The problem is identical to that of intermediate steps in long-distance movement and non-local binding in a derivational grammar that encompasses the PIC; and the solution we adopt here is identical to the one given for movement and binding in Heck & Müller (2006) and Fischer (2004), respectively: A Phase Balance (PB) constraint demands that for every probe feature in the numeration, a matching goal feature is accessible, which it can be by showing up either in the numeration, or at the edge of the current phase. Thus, PB can trigger movement so as to keep features accessible, in minimal violation of Last Resort (which prohibits non-feature driven movement); and assuming that N-to-D movement is not an option, the [def] feature alone undergoes movement to D, where it is realized in Swedish as *den/det/de*. Given the copy theory, there are now two [def] features available for morphological realization. It is a matter of parametrization whether only the moved feature is realized (Danish), or both copies are spelled out (Swedish); the choice is made via low-level optimization procedures for spell-out (Trommer (2006)). This Phase-based approach can be shown to account for Hankamer & Mikkelsen's (2005) recalcitrant data involving NP-internal PPs and relative clauses.

5. Consequences Finally, we discuss case and ϕ-features, and adopt a cross-linguistic perspective. We show that generalized PB-driven movement of case and ϕ-features from lower posititions to the DP edge solves long-standing puzzles in agreement, like the fact that whereas Agree is a binary operation (v/T–DP), DP-internal agreement can involve multiple exponents.

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