Deriving Double Definiteness: the interaction of Syntax and Morphology

Introduction: In Swedish, Norwegian, and Faroese, definiteness is expressed by a nominal suffix (1a). If the definite DP contains an adjective, this suffix occurs twice: once on the noun and once on *d-* (1b). This double marking of definiteness is known as Double Definiteness (DD) (Hankamer & Mikkelsen 2002, 2005, Julien 2005, Heck et al. 2007 a.o.). Most analyses of DD account for the licensing of the freestanding definite article, but not for the doubling of the definiteness marker. This doubling is either stipulated (Embick & Noyer 2001, Heck et al. 2007), or attributed to a mysterious agreement process between N and D (Hankamer & Mikkelsen 2002, 2005; Bernstein 2001 a.o.). I argue that this doubling arises through an intricate interaction between Syntax and Morphology. In the syntactic component, the licensing of the interpretation and inflection of the adjective in (1b) involves two copies of D. In the morphological component, the suffixal character of D ensures that both copies are spelled out.

Assumptions: a) Syntax operates on feature bundles. Vocabulary items are inserted in the postsyntactic morphological component (Halle & Marantz 1993) b) Syntactic structure is linearized at Vocabulary Insertion (VI) (Embick & Noyer 2001) c) Local Dislocation right-adjoins a morpheme to an adjacent element on its right after VI (Embick & Noyer 2001) d) Attributive adjectives are adjuncts (Svenonius 1994).

Proposal: A. Definite DPs without DD: The syntactic structure of (1a) is as in (2a). VI and Linearization result in (2b). The definiteness marker inserted in D undergoes Local Dislocation because of its suffixal property (2c). The final phonological spell out is as in (2d).

B. The paradox of the adjective: The Attributive Adjective (AA) in (1b) is interpreted inside the scope of a definite D. Hence, the AA must be c-commanded by a definite D. Paradoxically, there is also evidence that a definite D must c-command the AA. This is so because the inflection of the AA in Swedish is sensitive to definiteness. In indefinite DPs, the inflection on the AA is strong (3a), while it is weak in definite DPs. (3b). Under the null assumption that weak inflection on AA arises via Agree (Chomsky 2000) and hence is subject to the c-command requirement, the AA must also c-command a definite D. This paradox is formulated in (4).

C. Resolving the paradox: I argue that the adjective in (1b) is adjoined to DP (5). In (5), AP c-commands D, explaining in this way the sensitivity of the inflection to definiteness. However, this adjunction leads to a semantic type mismatch. Attributive APs are of type $<<e,t>, <e,t>>$, while definite DPs are of type $<e>$ (6). In order to solve this mismatch, the definite D is internally merged above the adjunction site of the AP (7a) (cf. the QR-analysis in Heim & Kratzer 1998). At LF, this higher copy will be interpreted, but not the lower one. Since the lower copy is not interpreted, it will not change the $<e,t>$ type of the NP in (7b). In this way, the type mismatch is avoided. In addition, the adjective is now c-commanded by a D-copy. Hence, the adjective is interpreted in the scope of a definite D. In this way, the paradox in (4) is resolved.

D. Double spell-out: At PF, VI and Linearization result in (8a). The lower D undergoes Local Dislocation to the right of N because of its suffix property (8b). However, Local Dislocation is excluded for the higher D. The element to the right of the higher D is the adjective, which cannot host the suffix. The suffixal property is therefore satisfied through the insertion of *d-*, a dummy host (8c) (cf. the *d*-support in Roehrs 2006, Santelmann 1993). After this, Chain Reduction (Nunes 2001) applies. However, Local Dislocation has reanalyzed the lower D as part of N. Morphological reanalysis bleeds Chain Reduction (Nunes 2001). Hence, both the higher and the lower D are spelled out (8d).

Definiteness marking in German: In this analysis, Syntax makes two D-heads available, while Morphology ensures that both heads are spelled out because of D's suffixal character. If the element inserted in D is not a suffix, like in German (9) or Dutch, Local Dislocation is not triggered (10). In that case, both Ds are visible for Chain Reduction, because none of the Ds is morphologically reanalyzed (10c). This explains the absence of DD in (10d).

The present analysis accounts for DD by combining morphological and syntactic explanations. In this way, it shows that the integration of advanced syntactic and morphological research is a fruitful strategy to achieve a deeper understanding of the microvariation of DP.

(1)   a.   *hus-**et***
       house-DEF.NEUT.
       'the house'

         b.   *d-**et***   *stora*   *hus-**et***   [Swedish]
              DEF.NEUT.   big   house-DEF.NEUT.
              'the big house'

(2)   a.   SYNTAX
       [$_{DP}$ D$_{[def]}$ [$_{NP}$ N]]

         b.   **PF:** VI & LINEARIZATION
            *-et * hus*

      c.   LOCAL DISLOCATION
          hus + et

         d.   PHONOLOGICAL SPELL-OUT
            huset

(3)   a.   *ett*   *stor-**t***   *hus*
       a.NEUT.SG   big-NEUT.SG   house
       'a big house

         b.   *det*   *stor-**a***   *hus-**et***   **[Swedish]**
             DEF.NEUT.   big-WEAK   house-DEF.NEUT.
             'the big house'

(4)   *C-COMMAND PARADOX OF THE ATTRIBUTIVE ADJECTIVE: INTERPRETATION VS. INFLECTION*
- *Interpretational requirement:* AAs must be c-commanded by a definite D, because they are interpreted in the scope of D.
- *Inflectional requirement:* AAs must c-command a definite D because their inflection is sensitive to definiteness.

(5)   ADJUNCTION
       [$_{DP}$ AP [$_{DP}$ D$_{[def]}$ [$_{NP}$ N]]]

(6)   TYPE MISMATCH
       [$_{DP}$ AP$_{<<e,t>,<e,t>>}$ [$_{DP <e>}$ D$_{[def]}$ N]]
                      MISMATCH

(7)   a.   INTERNAL MERGE D
       [$_{DP}$ D$_{[def]}$ [$_{DP}$ AP [$_{DP}$ D$_{[def]}$ [$_{NP}$ N]]]

         b.   **LF:** INTERPRET HIGH COPY
            [$_{DP}$ D$_{[def]}$ [$_{DP}$ AP$_{<<e,t><e,t>>}$ [$_{D}$ [$_{NP <e,t>}$ N]]]

(8)   a.   **PF**: VI & LINEARIZATION
       *-et * stora * -et * hus*

         b.   LOCAL DISLOCATION
            *-et * stora * hus + et*

      c.   *d*-INSERTION
       *d-et * stora * hus +et*

         d.   PHONOLOGICAL SPELL OUT
            det stora huset

(9)   *das*   *rot-e*   *Buch*   [German]
       DEF.NEUTER.SG.NO   red-WEAK   book
       'the red book'

(10)   a.   VI & LINEARIZATION
       *das * rote * das * Buch*

         b.   LOCAL DISLOCATION
            N.A.

      c.   CHAIN REDUCTION
       *das * rote * ~~das~~ * Buch*

         d.   PHONOLOGICAL SPELL OUT
            das rote Buch

References

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