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Definiteness Morphology in Swedish Determiner Phrases

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Abstract

In Swedish determiner phrases definiteness can be realised both pre-nominally with a definite article and post-nominally with a definite suffix on the head noun. This paper discusses the distribution of definiteness morphology in a number of morphosyntactic contexts. Separate patterns of definiteness marking emerge when considering the following morphosyntactic contexts: DPs modified with a prepositional phrase, DPs followed by a restrictive relative clause, and DPs with adjectival pre-nominal modification. This paper synthesizes various proposals in the literature to develop the working analysis: in particular, LaCara's (2011) analysis which includes two component features of definiteness and insights about DEN-omission from Simonenko (2014: Chapter 2). This working analysis demonstrates that the distribution under discussion can be unified using while maintaining a straightforward mapping between the semantics and the morphosyntax. The following avenues are identified as promising areas for future work: the distribution of definiteness morphology in additional morphosyntactic or semantic contexts and between varieties of Swedish; the semantic features adopted here and their alternatives; typological work concerning the semantic and morphosyntax definiteness cross-linguistically, including the properties of adjectival modification in definite DPs.

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Amy Goodwin Davies*

1 Introduction

In Swedish determiner phrases, definiteness can be realised both pre-nominally with a definite article and post-nominally with a definite suffix on the head noun. This paper discusses the distribution of definiteness morphology in a number of morphosyntactic contexts. The paper synthesizes various proposals in the literature (in particular, Simonenko 2014: Chapter 2 and LaCara 2011) to develop a working analysis which maintains a straightforward mapping between the semantics and the morphosyntax, and demonstrates that the distribution under discussion can be unified using two semantic features which correspond to domain restriction and uniqueness.[1] The paper is organised as follows: Section 2 introduces the distribution of definiteness morphology under discussion. Section 3 presents a working analysis. Section 4 compares the analysis with alternative approaches. Section 5 concludes.

2 Data

The basic distribution reported for standard varieties of Swedish is as follows: Definiteness is marked post-nominally in unmodified determiner phrases (henceforth DPs), (1). In DPs with pre-nominal adjectival modification, both pre-nominal and post-nominal definiteness marking is usually required (sometimes termed 'double definiteness'), (2). Co-occurrence of both pre- and post- nominal definiteness marking on unmodified DPs is reported to have a 'demonstrative' interpretation, (3).[2]

(1) mus**en**
    mouse-<u>DEF</u>
    'the mouse'

(2) **den** lilla mus**en**
    <u>DEF</u> little mouse-<u>DEF</u>
    'the little mouse'

(3) **den** mus**en**
    <u>DEF</u> mouse-<u>DEF</u>
    '*that* mouse'

There is a contrast between pre-nominal adjectival modification (4) and post-nominal prepositional phrase modification (5) for sentences with equivalent truth conditional content. This asymmetry motivates analyses which attribute 'double definiteness' to structural intervention effects, discussed in Section 4.2.

Context: *There are two men. One has gray hair.*

(4) Jag känner **(*den)** mann***(en)*** med grått hår.
    I   know   (*<u>DEF</u>) man-*(<u>DEF</u>) with gray hair

    'I know the man with gray hair.'

(5) Jag känner ***(den)*** gråhåriga   mann***(en)***.
    I   know   *(<u>DEF</u>) gray.haired man-*(<u>DEF</u>)

    'I know the gray-haired man.'

[1]In previous versions of this paper, the first of these semantic features was labelled 'specificity'.

[2]See Section 3.1 for discussion of this interpretation.

Restrictive relative clauses exhibit another pattern of definiteness marking: In restrictive relative clauses (henceforth RRCs), the post-nominal definite suffix is optional if and only if the pre-nominal definite article is included, (6–7).

(6) Jag känner **den** mann**(en)** som har grått hår.
     I   know   DEF man-DEF that has gray hair

     'I know the man that has gray hair.'

(7) Jag känner mann***(en)** som har grått hår.
     I   know   man-*(DEF) that has gray hair

     'I know the man that has gray hair.'

Furthermore, for at least some Swedish speakers, absence of pre-nominal definiteness marking is grammatical in DPs with pre-nominal adjectival modification under certain semantic and pragmatic conditions. Following Simonenko (2014), I term this phenomenon DEN-omission, exhibited in (8).

   Context: *Peter has two pigs on his hobby farm. One pig is fatter than the other. He is showing the pigs to his friend Sven and says:*

(8) Jag ska ta   ∅ stora gris**en**   till en tävling.
     I   will take ∅ big   pig-DEF to a   contest.

     'I will take the big pig to a contest.'   Simonenko (2014:135)

   In summary, separate patterns of definiteness marking emerge if we consider DPs modified with a prepositional phrase, DPs followed by a restrictive relative clause, and DPs with adjectival pre-nominal modification.[3] The paper seeks to analyse the data presented in this section.[4] The following subsection addresses DEN-omission in further detail.

2.1 DEN-omission

The pre-nominal definite article can be omitted with a class of modifiers descriptively termed 'selectors' (Dahl 2003:133). As Simonenko (2014:138) highlights, these modifiers form a natural class according to the following property: Their lexical meaning guarantees the uniqueness of their referent. Furthermore, Simonenko discusses how DEN-omission is not limited to 'selectors'. DEN-omission can also occur with context-sensitive positive gradable adjectives, such as, *stora* 'big', when the positive gradable adjective guarantees uniqueness in the common ground. According to Simonenko (2014), for any environment where DEN-omission is permissible, presence of the article is also acceptable.[5] DEN-omission should be distinguished from compounding that occurs in Northern Swedish varieties. In Northern Swedish varieties, post-nominal only definiteness marking is grammatical for modified DP compounds, (9–10):

(9)   storhus**et**   (10) lillhus**et**
      big.house-DEF   small.house-DEF

      'the large house'   'the small house'

These compounds are sometimes characterized by non-compositional meaning (Simonenko 2014: 142). However, productive compounding is also attested (Dahl 2003:157). (9) and (10) are grammatical ways of referring to the respective houses in a context in which there are two houses and one house is bigger than the other. According to Dahl (2003) there are two contexts which license

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[3]The interaction of these morphosyntactic contexts is left aside in this paper.

[4]Future work will extend the analysis to additional aspects of the distribution of definiteness morphology in Swedish.

[5]Not all of my native speaker consultants accepted DEN-omission, raising the question of whether there is cross-dialectal variation with regards to its availability. A pilot survey conducted by the author designed to investigate this variation was inconclusive. Furthermore, absence of the pre-nominal definite article in proper names, and how this relates to the DEN-omission data above should be investigated.

compounding: 'name-like' uses and 'selectors'. It is possible that the 'name-like' uses correspond to the lexicalised non-compositional interpretations, whereas the 'selectors' correspond to the productive type which may be licensed in similar semantic and pragmatic contexts to DEN-omission. Note that the only difference between compounds and more prototypical DEN-omission is the adjectival ending.[6] Compounding is left aside for the remainder of this paper.[7]

3 Working analysis

The working analysis requires two features relating to definiteness to account for the distribution of definiteness morphology found in Swedish DPs: uniqueness and domain restriction. The analysis as presented is couched within the framework of Distributed Morphology (Halle and Marantz 1993). It assumes that features associated with definiteness originate on the determiner head, and can become associated with the head noun through an agreement operation (e.g., *Agree*, Chomsky 2000). Following Embick and Noyer (2001) and Embick and Marantz (2008), the analysis assumes that a noun in a definite DP in Swedish has a morphosyntactic requirement that it be marked with a definiteness feature. Furthermore, the analysis requires that all pre-nominal adjectival modifiers introduce a comparison set which requires domain restrictive unless certain conditions are met.[8] To a first approximation, the following component syntactico-semantic features of definiteness are adopted: Uniqueness '[+unique]' introduces a presupposition of existence as well as uniqueness. Stroh-Wollin (2003:336), presumably capturing a similar insight, notes that when a Swedish DP "does not point to a specific or hypothetically understood referent", the noun cannot take the definite suffix. Domain restriction '[+DR]' closely corresponds to Enç's (1991) definition of 'specificity' (denoting members or subsets of existing discourse groups). As this definition of 'specificity' differs from previous uses of the term with regards to the Swedish DP, I label this feature [+DR]. [+DR] is a domain restricting feature, occurring when the intended referent is picked out from a comparison set.

The vocabulary items (i.e., correspondences between syntactico-semantic features and phonological material) are as follows:[9]

$$(11)\quad \text{D}\begin{bmatrix} +\text{DR} \\ \pm\text{unique} \end{bmatrix} \leftrightarrow \textbf{den} \qquad (12)\quad \text{D}\begin{bmatrix} -\text{DR} \\ +\text{unique} \end{bmatrix} \leftrightarrow \varnothing \qquad (13)\quad \begin{bmatrix} +\text{unique} \end{bmatrix} \leftrightarrow \textbf{-en}$$

This may not be the optimal featural breakdown, but the analysis captures the following insight: The pre-nominal definite article occurs when domain restriction is required in both pre-nominally modified DPs (following Simonenko 2014) and DPs glossed as 'demonstrative'. Furthermore, the analysis stipulates that head nouns in definite DPs have a morphosyntactic requirement that they receive a component feature of definiteness, which is characterized as uniqueness. The analysis implies that the combination of features [−DR, −unique] is not a possible featural combination for a definite DP in Swedish, which should be investigated in future work.

3.1 DPs without Adjectival Pre-nominal Modification

In DPs without adjectival pre-nominal modification, definiteness is generally marked post-nominally. This corresponds to a presupposition of uniqueness. [−DR, +unique] features originate on D, and [+unique] features are copied to N via *Agree*.

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[6]In non-compound definite DPs, attributive adjectives take the 'weak' adjectival ending, *-a*.

[7]The relationship between DEN-omission and compounding is a topic for future work.

[8]This aspect of the analysis is problematic for non-intersective adjectives (for example) and should be investigated in future work.

[9]An alternative breakdown is the following: (1) D $\begin{bmatrix} +\text{DR} \end{bmatrix} \leftrightarrow$ **d-** (2) D $\begin{bmatrix} -\text{DR} \end{bmatrix} \leftrightarrow \varnothing$ (3) $\begin{bmatrix} +\text{unique} \end{bmatrix} \leftrightarrow$ **-en**. Something further would be required to explain why a [−DR, +unique] D head is not realised as **-en** rather than $\varnothing$. I leave this alternative breakdown to future work.

(14) mus**en**
      mouse-DEF
      'the mouse'

(15)

```
              DP
            /    \
          D        NP
          |         |
      ⎡ −DR  ⎤      N
      ⎣+unique⎦    /  \
          ∅      mus  [+unique]
                      -en
```
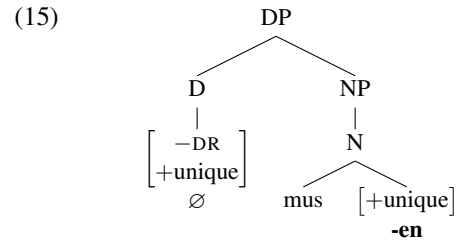
As noted in Section 2, when a DP with an unmodified noun has double-definiteness marking, a 'demonstrative' interpretation results. This analysis attempts to unify the 'demonstrative' and definite article *den*, which a number of researchers have noted are formally identitical in Scandinavian languages (e.g., Vangsnes 1999:Part 2 and Julien 2005:Chapter 4 cited in Leu 2007).[10] The demonstrative interpretation can be contrastive or deictic. In this analysis, this is accounted for with the domain-restricting [+DR] feature, which results in interpretation of a comparison set in the common ground. [+DR, +unique] features originate on D, and [+unique] features are copied to N via *Agree*.

(16) **den** mus**en**
      DEF mouse-DEF
      'the mouse'
      Contrastive or deictic interpretation

(17)

```
              DP
            /    \
          D        NP
          |         |
      ⎡ +DR  ⎤      N
      ⎣+unique⎦    /  \
         den    mus  [+unique]
                      -en
```
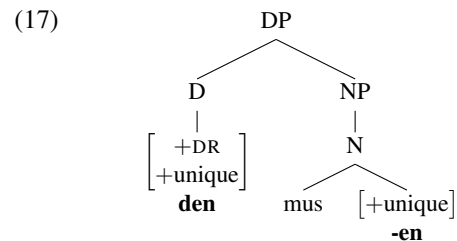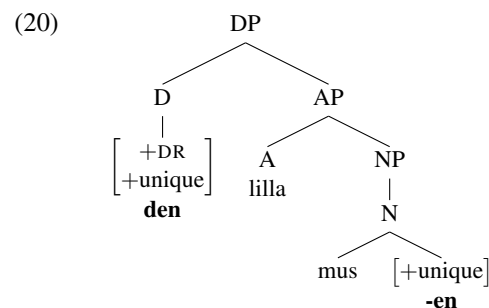
Double-definiteness marking on nouns which have unique referents regardless of contexts make the deictic or contrastive interpretation salient, as in (18) below:

(18) Jag tycker om **den** statsministe**rn**
      I   like   DEF prime.minister-DEF
      'I like the prime-minister.'
      Felicitous when other prime-ministers available for comparison, e.g., several prime-ministers from different geographic locations or time periods are salient (Kajsa Djärv, p.c.)

3.2 DPs with Adjectival Pre-nominal Modification

In DPs with adjectival pre-nominal modification, both pre- and post-nominal definiteness marking is exhibited. This analysis attributes this to a property of adjectival pre-nominal modification in Swedish, wherein pre-nominal adjectives introduce a comparison set which necessitates domain-restriction:

(19) **den** lilla mus**en**
      DEF little mouse-DEF
      'the little mouse'

(20)

```
              DP
            /    \
          D        AP
          |       /  \
      ⎡ +DR  ⎤   A    NP
      ⎣+unique⎦ lilla  |
         den           N
                      /  \
                    mus  [+unique]
                          -en
```

---

[10]Although see Simonenko 2014:135 for phonological stress contrasts.

However, when a context-sensitive, positive, gradable adjective uniquely identifies the referent, [+DR] domain restriction is not required:

(21) lilla mus**en**
      little mouse-<u>DEF</u>

      'the little mouse'
      Adjective must uniquely identify referent in common ground

(22)

```
                              DP
                    ┌──────────┴──────────┐
                    D                      AP
                    │               ┌──────┴──────┐
               ⎡ −DR   ⎤            A             NP
               ⎣ +unique ⎦     ┌────┴────┐         │
                    ∅      [+DR]      lilla        N
                                              ┌────┴────┐
                                             mus    [+unique]
                                                      -en
```
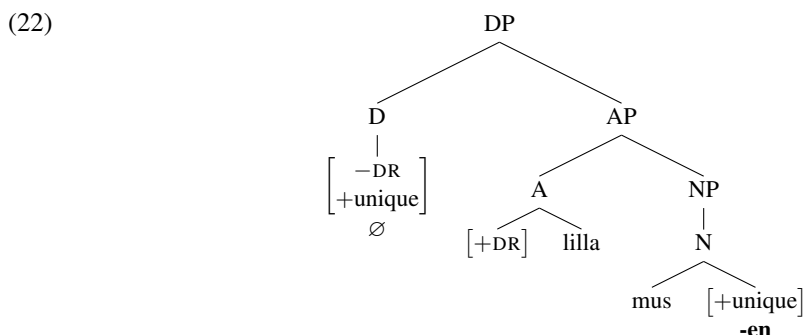
This could be attributed to a [+DR] on the adjective, as above. Not all adjectives can bear such a feature, accounting for restrictions of DEN-omission.[11]

The same featural content is present on a DP in which the adjective does not provide a [+DR] but the D head does, accounting for DEN-omission always being optional. The optionality of DEN-omission contrasts with the obligatory presence of *den* in an unmodified DP when a 'demonstrative' interpretation is intended, discussed in Section 2.[12] This follows from this analysis: In a DP without adjectival pre-nominal modification, presence of the pre-nominal has a 'demonstrative' interpretation because there is no optionality for the [+DR] feature to be present in a different structural position within the DP.

3.3 Restrictive Relative Clauses (RRCs):

In this analysis, the optionality of the post-nominal definiteness marker in restrictive relative clauses is attributed to uniqueness.[13] RRCs can provide environments in which the referent does not yet exist, and is therefore not unique. In these cases, there is no [+unique] feature that is copied to N. Gunkel (2007:232) highlights that, according to the literature, post-nominal marking is dispreferred with a relative clause if the overall DP is non-anaphoric (there must be a linguistic or contextual antecedent):

(23) **Den** spelare(**#n**)   som får högsta   siffra**n**   börjar.
      <u>DEF</u> player-(#<u>DEF</u>) that gets the highest number-<u>DEF</u> begins

      'The player that gets the highest number begins.' (Gunkel 2007:233, cited in Hofherr 2013)

Sentences of this type were investigated with a consultant. Notice the contrast between (24) and (25) below (Petra Ahnelöv, p.c.) in which we observe a distinction according to whether the referent exists.[14]

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[11]To fully account for the DEN-omission facts positive gradable adjectives, as well as the class of adjectives which Dahl (2003) labels as 'selectors' should be able to bear this feature.

[12]Leaving aside other articles with similar semantics, e.g., *denna* or *den här*.

[13]See Coppock and Engdahl (to appear) for an analysis in which the post-nominal marker corresponds to existence rather than uniqueness. Further research is required to investigate the extent to which this analysis can be reconciled with theirs.

[14]This paper does not find evidence to support a syntactic difference which accounts for the presence or absence of the post-nominal marker; however, due to mixed feedback from consultants further investigation is required. Bhatt (2002) proposes that the availability of a 'low reading' of a relative clause is indicative of a

(24) **#Den** lyckliga spelare**n**   som rullar en sexa börjar spelet.
      <u>DEF</u> fortunate player-<u>DEF</u> who rolls a six   begins game-<u>DEF</u>

      'The fortunate player who rolls a six begins the game.'

(25) ✓**Den** lyckliga spelare**n**   som rullade en sexa började spelet.
      <u>DEF</u>   fortunate player-<u>DEF</u> who rolled a   six   began   game-<u>DEF</u>

      'The fortunate player who rolled a six began the game.'

To conclude this section, the analysis attempts to account for variability in the distribution of the pre-nominal definiteness marker whilst maintaining a straightforward mapping between the semantics and the morphosyntax. [+DR] features are required when there is a comparison set across which the domain must be restricted. In unmodified DPs, this occurs if there is a contextually salient comparison set or discourse group, leading to a contrastive or deictic interpretation. In modified DPs, the contribution of pre-nominal adjectival modification is to include a comparison set so domain restriction is usually required. Only in cases in which the adjective introduces a contextually salient comparison set with only one member (i.e., the adjective contributes its own domain restricting feature) can DEN-omission occur. The distribution of the suffix is analysed as orthogonal to the distribution of the article, although they interact insofar as [−DR, −unique] features are not predicted to co-occur in a definite DP.

4 Discussion of Selected Previous Approaches

There is a vast literature addressing the Swedish DP (see LaCara 2011 for a literature review). This section discusses previous approaches which have been influential in developing the working analysis presented in this paper. The discussion is organised as follows: Section 4.1 discusses component features of definiteness. Section 4.2 overviews two morphosyntactic analyses which treat both pre-nominal and post-nominal definiteness marking as exponents of a single feature. Section 4.3 discusses how Swedish definiteness morphology corresponds to two types of definites found cross-linguistically, with 'weak' articles expressing situational uniqueness, and 'strong' articles expressing anaphoricity.

4.1 Features of Definiteness

LaCara (2011) identifies two types of approach to definiteness in the Swedish DP: single head analyses, in which the post-nominal marker is on the head noun through base generation or a post-syntactic mechanism, and dual head analyses, in which there are two functional heads expressing definiteness or component features. LaCara argues that single head analyses are insufficient to capture the distribution, and that more than one definite syntactic head leads to a theoretically problematic syntax.[15] As a result, he adopts a hybrid approach to the Swedish DP. This approach, in which two component features of definiteness originate on one D head, prompted the current analysis. In LaCara (2011), the definite article is associated with uniqueness whereas the suffix is associated with discourse familiarity.

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raising syntax. A 'low reading' is when an adjectival modifiers on the head of a relative clause is interpreted internally to the relative clause.

(i) **Den** första bok(**en**)   som Johan sa   att Tolstoj hade skrivit var Krig och fred.
     <u>DEF</u> first   book-(<u>DEF</u>) that John   said that Tolstoj had   written was War and Peace

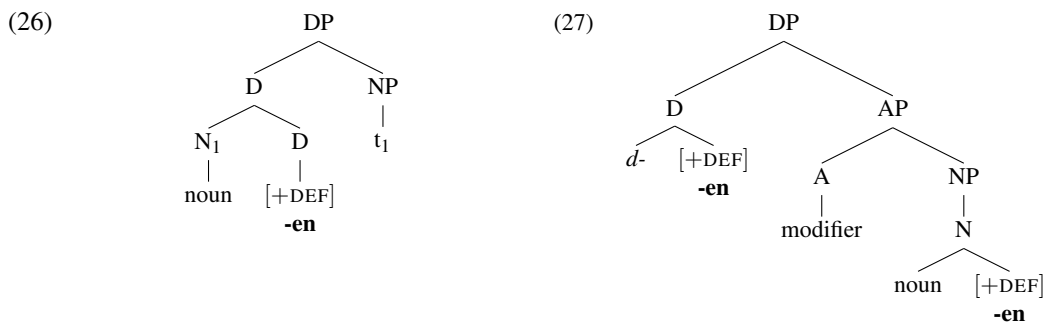   'The first book John said Tolstoy wrote was War and Peace.'

In (i), the 'high reading' is the interpretation for which the ordering of saying is pertinent, and the 'low reading' is the reading for which the order of writing is pertinent. In general, consultants indicated that 'high' and 'low' readings were available for RRCs with and without the post-nominal marking. The 'low reading' is facilitated if *sa* is stressed (Engdahl and Lindahl p.c.). The 'low reading' is reported by some to be easier without the post-nominal marking, which may explain why feedback from consultants was mixed.

[15]See LaCara 2011:74–5 for discussion.

Simonenko (2014) investigates DEN-omission, concluding that the pre-nominal marker contains a domain restrictor, an insight operationalized in the current analysis. The current analysis extends Simonenko's analysis of the pre-nominal definiteness marking in modified DPs to account for the homophonous pre-nominal definiteness marker glossed as 'demonstrative', thus unifying pre-nominal marking in both modified and unmodified DPs (cf. Leu 2007).

4.2 Morphosyntactic Approaches

A number of approaches to the Swedish pattern have treated pre-nominal and post-nominal definiteness marking as exponents of one 'definite' feature, hence the term 'double definiteness'. This subsection discusses two morphosyntactic approaches to the Swedish pattern which incorporate a notion of 'doubling', and reconsider their viability given the data under discussion. Both Embick and Noyer (2001) and Embick and Marantz (2008) analyse the definite morphology as exponents of one 'definite' feature, however the proposed morphosyntactic mechanisms differ substantially. Embick and Noyer (2001) analyse the Swedish distribution as a 'support phenomenon', analogous to '*do*-support' in English. In this analysis, the Swedish DP is subject to the following constraints: First, the Head N must be marked with definiteness when D is [+DEF]. Second, the [+DEF] D must have a phonological host ('dummy' *d-*). For unmodified nouns, Embick and Noyer (2001) posit head movement of N to D (26):

(26)

```
              DP
            /    \
          D       NP
        /   \      |
      N₁     D     t₁
      |      |
    noun   [+DEF]
            -en
```

(27)

```
                    DP
                  /    \
                D        AP
              /   \     /    \
            d-  [+DEF] A      NP
                -en    |       |
                    modifier   N
                              /   \
                           noun  [+DEF]
                                  -en
```

When this movement is blocked by an intervening adjectival pre-nominal modifier they posit *dummy d-* insertion and an agreement or concord operation which causes N in a [+DEF] environment to bear a dissociated [+DEF] morpheme (27). Note that this account assumes a structure of the DP in which A (an adjectival head with an NP complement) can block head movement.

Embick and Marantz (2008) propose an alternative analysis for Scandinavian DPs (the focus is Danish). The alternative analysis relies on Linear Adjacency: For affixation to occur, D must be linearly adjacent to N.[16]

Both analyses can account for the basic distribution, i.e., (1–5) in Section 2. The remainder of this subsection considers how these analyses might be modified to account for the DEN-omission data presented in this paper.

A modification that would extend the movement account to the DEN-omission facts would be to propose that a pre-nominal modifier occupies a different structural position within the DP when it uniquely identifies the referent. Alternatives are adjunct or specifier position which would not intervene or block head movement. However, without independent evidence for the structural contrast, this is not persuasive. This modification does not allow a linear adjacency account to extend to the DEN-omission facts.

A modification to both the movement and linear adjacency accounts would be to posit a phonologically null determiner for DPs in which the adjective uniquely identifies the referent, thus accounting for DEN-omission. The head N must still be marked with definiteness when D is [+DEF].[17]
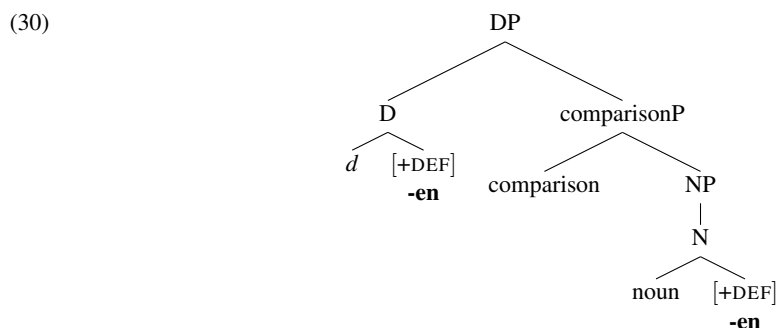
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[16]This analysis captures the Danish pattern (as designed), but does not account for the basic pattern in Swedish without further modification. To account for the Swedish data, I assume an agreement or concord operation which causes N in a [+definite] environment to bear a dissociated [+DEF] morpheme accounting for the post-nominal marking, as per Embick and Noyer (2001).

[17]DEN-omission for modified nouns in unique contexts is only grammatical in some dialects of Swedish.

(28) A phonologically realised determiner which requires phonological support:
[+DEF] ↔ **-en**

(29) A phonologically null determiner which does not require phonological support (conditioned by whether the adjective uniquely identifies the referent):
[+DEF] ↔ ∅ / "uniquely identifying adjective"

However, the semantic or pragmatic context conditioning phonologically null determiners is not easily operationalized without breaking down definiteness into component features.

A further potential way of analysing *den* presence in unmodified DPs would be to posit a silent syntactic element which blocks head-movement or linear adjacency in the same way as other modifiers (a similar analysis is discussed in Leu 2007). This seems to be the most parsimonious analysis, but we do not have independent evidence for the silent syntactic element which blocks head movement, labelled 'comparison' in (30).[18]

(30)

```
                         DP
              ┌──────────┴──────────┐
              D                  comparisonP
           ┌──┴──┐            ┌──────┴──────┐
          d  [+DEF]       comparison        NP
              -en                            │
                                             N
                                          ┌──┴──┐
                                        noun  [+DEF]
                                               -en
```

In the morphosyntactic approaches discussed in this subsection, the optionality of the postnominal definiteness marker might be accounted for with a raising syntax in RRCs disrupting the *Agree* relationship between D and the head noun.

4.3 Correspondences with 'Weak' and 'Strong' Definite Articles

Schwarz (2009, 2013) finds evidence for two types of determiners in natural language: a 'weak' article that corresponds to uniqueness and a 'strong' article that corresponds to familiarity or anaphoricity. Morphological differences between articles of uniqueness and anaphoricity have been found cross-linguistically, e.g., in German (Schwarz 2009, 2013), Akan (Arkoh and Matthewson 2013), and Icelandic (Ingason 2015).

In German a part-whole bridging relationship between an aforementioned entity and the referent of the definite requires the 'weak' article (Schwarz 2013:7). In Swedish, unmodified noun phrases in part-whole bridging contexts must be marked post-nominally only, and modified noun phrases must be marked both pre- and post-nominally. As such, it appears that [−DR, +unique] features in unmodified DPs correspond with the 'weak' article. [+DR, +unique] features in modified DPs also correspond with the 'weak' article:

(31) Vi hittade kyrkan i byn. **(*Det)** torn**et** var lite krokigt.
We found church-<u>DEF</u> in village-<u>DEF</u>. (<u>DEF</u>) tower-<u>DEF</u> was slightly crooked

'We found a church in the village. The tower was slightly crooked.'

(32) Vi hittade kyrkan i byn. **#(Det)** gamla torn**et** var lite krokigt.
We found church-<u>DEF</u> in village-<u>DEF</u>. (<u>DEF</u>) old tower-<u>DEF</u> was slightly crooked

'We found a church in the village. The old tower was slightly crooked.'[19]

According to this analysis, the speakers which never allow DEN-omission in modified DPs simply do not learn the phonologically null determiner variant.

[18] Another approach would be to abandon an analysis in which the demonstrative and definite pre-nominal marker express the same syntactico-semantic features, positing an additional vocabulary item realised as *den* which is not *-en* +'*d*-support'.

[19] Judgements in this section provided by Petra Ahnelöv.

The same distribution holds for Producer bridging relations:

(33) Klassen   lärde   sig   alfabetet.   **(*Den)** lärar**en**   var nöjd.
      class-<u>DEF</u> learned SELF alphabet-<u>DEF</u>. (<u>DEF</u>)   teacher-(<u>DEF</u>) was pleased.
      'The class learned the alphabet. The teacher was pleased.'

(34) Klassen   lärde   sig   alfabetet.   ***(Den)** karismatiska lärar**en**   var nöjd.
      class-<u>DEF</u> learned SELF alphabet-<u>DEF</u>. (<u>DEF</u>)   charismatic   teacher-(<u>DEF</u>) was pleased.
      'The class learned their alphabet. The charismatic teacher was pleased.'

For 'weak definites' in the sense of Carlson et al. (2006), the 'weak definite' interpretation ('same store interpretation') cannot hold for unmodified DPs with pre-nominal marking, whereas a modified DP cannot have 'the same store interpretation'. [−DR, +unique] features in unmodified DPs and [+DR, +unique] features in modified DPs correspond with the 'weak' article in this case:

Context: *Bob and Maria went to the same store*

(35) Bob gick till **(*den)** affär**en**,   och Maria gjorde det också.
      Bob went to (<u>DEF</u>) store-<u>DEF</u>, and Maria did   it   also.
      Bob went to the store, and Maria did so too.

(36) Bob gick till ***(den)** stora affär**en**,   och Maria gjorde det också.
      Bob went to (<u>DEF</u>) large store-<u>DEF</u>, and Maria did   it   also.
      'Bob went to the large store, and Maria did so too'

With reference to restrictive relative clauses, Hofherr (2013) notes that non-DR (meaning non-anaphoric) interpretations seem to take the 'weak' article, citing data from Swedish from Gunkel 2007. This suggests the absence of the post-nominal marker in Swedish, corresponds to the 'weak' article in these contexts, (23) repeated as (37), below:

(37) **den** spelare**(#n)**   som får högsta   siffran   börjar.
      <u>DEF</u> player(#<u>DEF</u>) that gets the highest number-<u>DEF</u> begins
      'The player that gets the highest number begins.' (Gunkel 2007:233, cited in Hofherr 2013)

According to preliminary analysis, definiteness morphology in Swedish does not straightforwardly pattern according to the 'strong' versus 'weak' distinction: For modified DPs, a correspondence with 'strong' and 'weak' articles does not hold. DEN-omission only occurs in contexts in which the adjective uniquely picks out a referent, which appears to be orthogonal to the 'strong' versus 'weak' distinction. For unmodified DPs, the distribution does have some correspondences with the 'strong' versus 'weak' distinction: [+DR, +unique] determiners pattern with 'strong' definites, whereas depending on the context, [−DR, +unique] and [+DR, −unique] determiners pattern with 'weak' definites. This suggests that 'weak' definites do not form a natural class for Swedish definites, which has interesting implications for further research into typological variation with regards to component features of definiteness.

5 Concluding Remarks

In Swedish, separate patterns of definiteness marking emerge when considering the following morphosyntactic contexts: DPs modified with a prepositional phrase, DPs followed by a restrictive relative clause, and DPs with adjectival pre-nominal modification. This paper synthesizes various proposals in the literature to develop a working analysis which maintains a straightforward mapping between the semantics and the morphosyntax: in particular, LaCara's (2011) analysis which includes two component features of definiteness and insights about DEN-omission from Simonenko (2014: Chapter 2). The following avenues are identified as promising areas for future work: the distribution of definiteness morphology in additional morphosyntactic or semantic contexts and between varieties of Swedish; the semantic features adopted here and their alternatives; and, typological work concerning the semantics and morphosyntax of definiteness cross-linguistically, including the properties of adjectival modification in definite DPs.

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