CrossMark

Quasi-definites in Swedish: Elative superlatives and emphatic assertion

Elizabeth Coppock[1,2] · Elisabet Engdahl[3]

Abstract This paper analyzes nominal phrases in Swedish with a definite article but no definite suffix on the head noun, which we call *quasi-definites* (e.g. *det största intresse* 'the greatest interest'). These diverge from the usual 'double definiteness' pattern where the article and the suffix co-occur (e.g. *det största intresse-t* 'the greatest interest-DEF'). We give several diagnostics showing that this pattern arises only with superlatives on an elative ('to a very high degree') interpretation, and that quasi-definites behave semantically as indefinites, although they have limited scope options and are resistant to polarity reversals. Rather than treating the article and the suffix as marking different aspects of definiteness, we propose that both are markers of uniqueness and that the definite article signals definiteness that is confined to the adjectival phrase and combines with a predicate of degrees rather than individuals in this construction. The reason that quasi-definites do not behave precisely as ordinary indefinites has to do with their pragmatics: Like emphatic negative polarity items, elative superlatives require that the assertion be stronger ($\approx$ more surprising) than alternatives formed by replacing the highest degree with lower degrees, and have a preference for entailment scales.

Keywords Definiteness · Superlatives · Degree semantics · Elatives · Polarity sensitivity · Strength of assertion · Scandinavian · Swedish

✉ E. Coppock
eecoppock@gmail.com

E. Engdahl
elisabet.engdahl@svenska.gu.se

[1] Department of Philosophy, Linguistics, and Theory of Science, University of Gothenburg, Gothenburg, Sweden

[2] Swedish Collegium for Advanced Study, Uppsala, Sweden

[3] Department of Swedish, University of Gothenburg, Gothenburg, Sweden

1 Introduction

1.1 Overview

In *double definiteness* varieties of Scandinavian (Swedish, Norwegian, and Faroese), a definite article is ordinarily accompanied by a definite suffix, as in (1), from Swedish.

(1)   det stora hus-et
          the big   house-DEF
          'the big house'

This situation opens up the possibility for shades of gray between full definiteness marking and complete lack thereof, and this paper addresses one such case. An example of the construction we will focus on is given in (2a), where the article *det* 'the' appears without a corresponding definite suffix on the head noun *intresse*. This example forms a minimal pair with (2b), where the suffix is present (Delsing 1993).

(2)   a.   Vi följer utvecklingen med *det största intresse*.
                'We are following the development with *the greatest interest*.'
          b.   *Det största intresse-t* riktades mot Allsvenskan.
                '*The greatest interest*-DEF was directed to Allsvenskan.'

We use the term *quasi-definite* as a label for this kind of noun phrase in double-definiteness varieties of Scandinavian (definite article, bare head noun, and no relative clause; see below on the relevance of relative clauses). Although quasi-definites are found in for example Norwegian as well, we will limit our attention to Swedish in this article.

   This paper concerns the obvious question: What allows the article to occur without the suffix in (2a)? One possibility is that the article and the suffix represent different aspects of definiteness. For example, Julien (2005) suggests that the suffix encodes specificity (≈ existence) while the article encodes maximality (≈ uniqueness), though not directly as an explanation for this phenomenon. This analysis is adopted by Alexiadou (2014). Another possibility, also proposed by Julien (2005) as a separate claim, is that the article can relate to a different part of the meaning, operating within the adjectival projection. As evidenced by the very position Julien (2005) holds, it is possible to maintain both of these claims simultaneously, so they are not mutually exclusive, although they are alternative strategies for explaining the phenomenon of quasi-definites. Alternatively, it may be that quasi-definites are really definite, and the lack of a suffix is misleading. Or perhaps quasi-definites are not definite at any level, and the definite article functions under these circumstances as a semantically vacuous expletive. We may also consider the possibility that the article signals reference to kind individuals, as proposed by Aguilar-Guevara and Zwarts (2010) for the 'weak definites' in English discussed by Carlson and Sussman (2005).

   Let us summarize the range of analytical options more systematically.

1. *The degree analysis*: Quasi-definites are definite at the level of degrees, and the article may signal definiteness at this level, while the suffix signals definiteness only at the level of individuals.

2. *The expletive analysis*: There is no definiteness at any level in quasi-definites; the article is semantically vacuous.
3. *The aspects-of-definiteness analysis*: Quasi-definites carry a uniqueness presupposition, marked by the article, but do not signal existence or specificity, hence the absence of the suffix.
4. *The kind analysis*: Quasi-definites are definite at the level of kinds, and the definite article signals definiteness at the kind level, while the suffix does not.

We will argue for the degree analysis, and thereby explicate Julien's (2005) intuition that quasi-definites exhibit "a special kind of definiteness" which is "confined to the adjectival phrase" (p. 41). The analysis is made explicit in Sect. 5; the alternative hypotheses are addressed individually in Sect. 6. We argue that the article and the suffix do not encode different aspects of definiteness, as Julien (2005) proposes; rather, both are markers of uniqueness, as Coppock and Beaver (2015) propose for English *the*. In a quasi-definite noun phrase, the definite article signals uniqueness with respect to a predicate of degrees rather than individuals.

An advantage of the degree analysis over the others is that it sheds light on the very restricted distribution of quasi-definites. As we show in Sect. 2, the presence of a superlative adjective in (2a) is not an accident; the quasi-definite pattern systematically arises with superlatives. Moreover, several diagnostics show that the superlatives that occur in this construction have a special *elative* interpretation, meaning 'to a very high degree', rather than invoking a comparison class (Teleman et al. 1999). This can be explained under the assumption that the definite article can be interpreted within the adjectival projection and signify uniqueness with respect to a property of degrees.

Our analysis implies that quasi-definites are not definite at the level of ordinary individuals, a consequence which is supported by a number of facts, discussed in Sect. 3. As previous scholars have argued (Delsing 1993; Julien 2005), quasi-definites behave semantically more like indefinites than definites, and we offer additional evidence in support of this. However, we also show that they do not behave entirely like ordinary indefinites, as they have limited scope options and are resistant to polarity reversals. In these respects, they are similar to weak definites, but there are crucial differences between quasi-definites and weak definites, both in English and in Swedish. So this phenomenon illustrates a different kind of intermediacy between definite and indefinite.

We argue in Sect. 4 that the special scope behavior of quasi-definites has its source in the pragmatics of emphasis. Elative superlatives, we propose, are much like emphatic polarity items (such as *a whit*) as analyzed by Krifka (1995), Israel (2011), and Chierchia (2013), and like *even* as analyzed by Karttunen and Peters (1979) among others: the clause they participate in must be stronger (more noteworthy/surprising/informative) than alternative assertions. The alternatives in this case are formed by substituting the highest degree with a smaller degree. Nevertheless, only some quasi-definites are negative polarity items, and many are compatible with both positive and negative environments, given an appropriate set of background assumptions and surrounded by lexical items with appropriate content. Quasi-definites thus provide a case where inherently emphatic scalar items are found beyond the realm of polarity sensitivity.

1.2 The landscape of definiteness mismatches

The construction we focus on here is one of several types of cases in which the definite article and the suffix do not co-occur in Scandinavian. Before we delve into quasi-definites, let us place them in the context of other such constructions. Recall from above that a definite article usually co-occurs with a suffix in double definiteness varieties of Scandinavian.[1]

(3)   Det stor-a hus-et   är gammal-t.
        the big-W house-DEF is old-NEU
        'The big house is old.'

There are two kinds of exceptions to this correlation: a suffix unaccompanied by an article, and an article unaccompanied by a suffix.

A definite *suffix* regularly occurs without a definite *article* whenever there is no pre-nominal modifier. For example, *huset* means 'the house' in Swedish. If a *den* or *det* occurs with a single noun and no intervening adjective, it is stressed, indicated by italics, and receives a demonstrative interpretation.[2]

(4)   a.   Hus-et   är gammalt.
              house-DEF is old.
              'The house is old.'
       b.   *Det* hus-et   är gammalt.
              DEM house-DEF is old
              'That house is old.'

An interpretation of *det* as a definite article in (4b) is not available. We can show this with associative ('bridging') anaphora, which definites can do and demonstratives cannot.[3]

(5)   a.   I wanted to use my bicycle but the saddle is broken.
       b.   ??I wanted to use my bicycle but this saddle is broken.

Example (5b) cannot be used to refer to the saddle of the introduced bicycle if the saddle is not independently salient in the context. The same is true for Swedish noun

---

[1]The suffix *-a* on *stor-a* is the so-called 'weak' ending, hence the gloss -W. Weak endings are found on singular attributive adjectives in definite noun phrases (as in (3)) and on plural adjectives in both predicative and attributive position, and they do not reflect the gender of the noun (hence the name 'weak'; there is no relation to 'weak' as in 'weak definites'). Singular attributive adjectives in definite noun phrases and singular predicative adjectives take a 'strong' ending, which reflects the gender of the (discourse) referent. For example, in *Hus-et är gammalt-t* 'the house is old', the predicative adjective *gammalt-t* reflects the inherent neuter gender of the word *hus* 'house' (reflected by its co-occurrence with the articles *ett* 'a' and *det* 'the'), and in *Bil-en är stor* 'the car is big', the predicative adjective *stor* reflects the inherent common gender of *bil* (reflected by its co-occurrence with the articles *en* 'a' and *den* 'the').

[2]Faarlund (2009:630) points out that although the neuter definite determiner and the neuter demonstrative in Norwegian are both spelled *det*, they differ in vowel quality.

[3]Thanks to a reviewer for this suggestion.

phrases containing *det* or *den* followed immediately by a noun:

(6) Jag ville   använda min cykel men…
     I   wanted use   my bike but
     'I wanted to use my bicycle but…'
  a. sadel-n   är trasig.
      saddle-DEF… is broken
      'the saddle is broken.'
  b. ??den sadel-n   är trasig.
      DEM saddle-DEF is broken
      'this/that saddle is broken.'

Normally, the definite article appears whenever there is an adjectival modifier, but adjectival modifiers can appear unaccompanied by a definite article in some cases. These include name-like expressions and common collocations often involving superlatives (Teleman et al. 1999; Dahl 2015; Simonenko 2007; Borthen 2007, 2008). (Since the examples can for the most part be translated word-for-word, we omit interlinear glosses in the following. If the noun in question has a definite suffix, this will always be indicated in the translation; otherwise the noun lacks the definite suffix.)

(7) *Nationella strokekampanj-en* startar för *sista gång-en*.
     'The *national stroke campaign*-DEF is starting for the *last time*-DEF'

If we were to remove *det* from (3) above, the result would not be ungrammatical in Swedish, but it would have a name-like interpretation, as in the following example.

(8) Vi träffas på *Stora Hotell-et*.
     'We'll meet at Big-Hotel-DEF.'

Our focus will not be on cases where a suffix occurs without an article, but rather on the opposite type of case where a definite article occurs without the definite suffix. This is relatively common when the noun is modified by a relative clause.

(9) Chefen tackade för *det stora arbete [vi lagt ner på uppgiften]*.
     'The boss thanked us for *the great effort [we had made on the task]*.'

If the relative clause were to be removed from (9), the example would become ungrammatical; a definite suffix would rescue the sentence.

(10) Chefen tackade för *det stora arbete-*(t)*.
      'The boss thanked us for *the great effort*-DEF.'

Although it has been argued that the presence or absence of the suffix can affect interpretation (Dahl 1978), drop of the suffix is relatively free in the presence of a relative clause. As (10) shows, this freedom is not present otherwise.[4]

However, there are certain cases in which a definite article can occur without a definite suffix even when no relative clause is present, and this is the type of case we will analyze here: noun phrases with a definite article, no definite suffix and no

---

[4]Other definite noun phrases in which the suffix is absent are noun phrases with demonstratives, as in *detta hus* 'this house' and possessives as in *mitt hus* 'my house'. These are always interpreted as definite noun phrases; see Cooper (1986) and Börjars (1998) i.a.

relative clause (which we call *quasi-definites*). Example (2a) above contains a quasi-definite. Further examples include the following.[5]

(11)   De vackra färgerna lyser upp *den gråaste dag*.
       'The beautiful colors light up *the grayest day*.'

(12)   Den som aldrig annars kan äta kakor blir överlycklig för *den slätaste bulle*.
       'Someone who can't otherwise eat cookies gets overjoyed about *the plainest bun*.'

(13)   Radioteleskopen gjorde det möjligt att "se" sådant som inte kunde iakttas ens med *det starkaste teleskop*.
       'The radiotelescope made it possible to "see" things that couldn't be observed even with *the strongest telescope*.'

(14)   Hon visste att *det kortaste ärende* kunde ta ett par timmar.
       'She knew that *the shortest errand* could take a couple of hours.'

(15)   Uppenbarligen fyller dessa gamla gregorianska kyrkosångare ett behov som inte *den smartaste skivbolagsdirektör* hade en aning om att det existerade.
       'Apparently these old Gregorian church singers fulfill a need that *the smartest record company director* didn't have any idea existed.'

Note already the wide variety of lexical items: This shows that we are dealing with a fully productive pattern, not just a limited set of fixed expressions. A more thorough sampling of the data is given throughout the discussion below.

2 The adjective: Always an elative superlative

Examples (11)–(15) all contain superlatives. According to the Swedish Academy Grammar (Teleman et al. 1999), "a formally definite noun phrase with the head word in the indefinite form" (where the 'indefinite form' refers to the form of the noun lacking a definite suffix) may be found in the presence of what they call *absolute superlatives*, denoting "a very high degree of a quality", where the "comparison class is neither given explicitly nor by the context or speech situation".[6] This contrasts with what we will refer to simply as 'ordinary' uses of superlatives, as in *the tallest kid (in my class)*, which characterize an individual who has the indicated property to a greater degree than all others in a given comparison class (in this case kids in the class). Instead of 'absolute' to describe the 'to a very high degree' reading which is not relative to any comparison class, we will use the term 'elative', in order to make it clear that the distinction in question is not related to the distinction between 'absolute' and 'relative' or 'comparative' readings of superlatives discussed for example by Szabolcsi (1986) and Heim (1999). In our terms, then, what the Swedish Academy Grammar says is that elative superlatives are found in quasi-definites. In this section we give corpus evidence and diagnostics for a stronger claim: Quasi-definites *always* contain an elative superlative.

---

[5]Most of the examples in this paper come from the newspaper *Göteborgs-Posten*, part of the Swedish corpora available at Språkbanken spraakbanken.gu.se/korp.

[6]See Teleman et al. (1999, Volume II, p. 206f.), Teleman et al. (1999, Volume III, p. 79f.).

2.1 Restriction to superlatives

Above, we defined a *quasi-definite* as a noun phrase in which there is a definite article, a head noun in the bare form, and no relative clause. Recall that definite articles only appear in the presence of adjectival modifiers, so it follows from this definition that quasi-definites always contain an adjectival modifier as well as a definite article. Nothing in the definition requires this prenominal modifier to be a superlative, though; in principle one could find examples of quasi-definites that have a non-superlative prenominal modifier if they existed.

To find out whether such cases do exist, we did a broad search in a part-of-speech tagged corpus of newspaper text,[7] and searched for *den* or *det*, followed by an adjective, followed by a noun without a definite suffix. After selecting 1000 results to look at and filtering out cases that do not meet the definition of a quasi-definite, we were left with 138 examples that did meet the definition. 90 of these contained a superlative adjective, 19 contained the fixed expression *den milda grad* 'the small degree', two contained the archaic expression (*den ljusnande framtid* 'the brightening future', from an old song), and the remaining 27 appear to have been editing mistakes, based on the judgment survey we carried out with ten native Swedish speakers described in the Appendix. Since superlatives are not more common than non-superlatives in attributive position, we can be reasonably confident that we would have found a non-superlative in this sample if they were productively allowed in this construction. We therefore conclude that quasi-definites in Swedish must contain a superlative adjectival modifier.[8]

In order to have a broad and varied empirical base for our investigation, we carried out additional searches for quasi-definites in the newspaper, blog and fiction corpora in Språkbanken and made a random selection of 200 examples which we refer to throughout the paper as the Korp-200 sample.[9]

2.2 Elative superlatives

Recall that on an elative interpretation, *slätaste* 'plainest', for example, means 'plain to a very high degree', rather than 'plainer than all other members of the comparison class'.[10] Some languages have dedicated elative morphemes: Berlanda (2013) and Beltrama (2014) for example discuss the Italian *-issimo* suffix (as in *bellissimo* 'extremely beautiful'), Matushansky (2008) discusses a special elative suffix *-ejš-*

---

[7]250 million words from *Göteborgs-Posten*, using the search engine Korp (http://spraakbanken.gu.se/korp/).

[8]A reviewer points out that the situation is slightly different in Norwegian, where a broader range of quasi-definites can be found, such as "Det må vera *den rette tolking*" 'That must be *the right interpretation*' (Nynorsk). This difference may be due to the strong influence of Danish on the development of the written standards for Norwegian; Danish marks definiteness only once per noun phrase.

[9]The complete annotated data set is available at: https://svn.spraakbanken.gu.se/sb-arkiv/pub/coppock/superlatives.

[10]The term 'elative' is used in some traditions including Latin and Arabic grammar. Other terms used for this concept include 'absolute superlative', as mentioned above, as well as 'intensifying', used by Claridge (2007) and Scheible (2009) in their discussions of elatives in English.

in Russian, and elative constructions in several different languages are discussed by Oebel (2012). Elative uses of superlatives can also be found in English with periphrastic *most* in combination with indefinite determiners (Quirk et al. 1985), e.g.:

(16)   We had a most pleasant supper.

(17)   Mrs. Wheatley has several most delightful specimens of her improved abil-
         ity...   [from *The Portfolio* by Oliver Oldschool]

An elative interpretation seems to be available even for morphological superlatives in combination with a definite article:

(18)   We are following the development with the greatest interest.

This is easily understood to mean, 'We are following the development with ex-tremely great interest' (rather than '...with interest that is greater than all others.'). In the glosses of quasi-definites below, we rely on this kind of interpretation in En-glish.

It is only in connection with elative superlatives that the Swedish Academy Gram-mar (Teleman et al. 1999) notes that a definite article may co-occur with a bare noun (setting aside cases where the noun is modified by a relative clause as in (9)). Let us consider the hypothesis that this listing of such environments is exhaustive, so superlatives in quasi-definites *always* have an elative interpretation. If quasi-definites always contain an elative superlative, then an elative interpretation should arise when-ever the suffix is absent. For example, in (19a) (shortened from (13)), what is being described should be a telescope of the strongest possible variety, not the strongest among a given group of telescopes, as in (19b).

(19)   a.   Stjärnan kunde inte iakttas ens med *det starkaste teleskop*.
              'The star couldn't be observed even with *the strongest telescope*.'
              (I.e. a telescope of maximum strength)
         b.   Stjärnan kunde inte iakttas ens med *det starkaste teleskop-et*.
              'The star couldn't be observed even with *the strongest telescope*-DEF
              (among the relevant telescopes).'

Indeed, these glosses fit with native speakers' intuitions as to the meanings of these examples. But how can we really tell that we do not have an ordinary interpretation of the superlative in these cases? Suppose the comparison class is all telescopes ever built, or even all telescopes imaginable. Then the elative interpretation starts to come very close to the ordinary interpretation.[11] In other words, Teleman et al.'s (1999) claim is not entirely straightforward to verify, because it is hard to distinguish a tele-scope of maximum strength from a telescope that is stronger than all others in a sufficiently large comparison class.

We therefore offer two diagnostic tests in support of the claim that the superlatives that occur in quasi-definites are interpreted elatively. The first involves modification with *näst* 'next', as in 'next/second best'. Ordinary superlatives invoke an ordering of

---

[11]Thanks to Gunlög Josefsson for raising this point.

items in the comparison class, hence accept modification with *next* or *second*, as in:

(20)   John is the second smartest boy in his class.

Elative superlatives in English, formed with periphrastic *most*, do not accept this kind of modification:

(21)   We had a (*second)-most delightful dinner with them yesterday.

If quasi-definites involve elative superlatives, then *näst* should not be able to modify a superlative adjective inside a quasi-definite. That prediction is borne out:

(22)   a. *Stjärnan kunde inte iakttas med *det näst starkaste teleskop*.
            'The star couldn't be observed with *the second strongest telescope*.'
        b.   Stjärnan kunde inte iakttas med *det näst starkaste teleskop-et*.
            'The star couldn't be observed with *the second strongest telescope-*
            DEF.'

(23)   a. *Den som aldrig annars kan äta kakor blir överlycklig för *den näst
            slästaste bulle*.
            'Someone who can't otherwise eat cookies gets overjoyed about *the
            second plainest bun*.'
        b.   Den som aldrig annars kan äta kakor blir överlycklig för *den näst
            slästaste bulle-n*.
            'Someone who can't otherwise eat cookies gets overjoyed about *the
            second plainest bun-*DEF.'

    Second, observe that it is not possible to add an explicit comparison class to a quasi-definite:[12]

(24)   *De vackra färgerna lyser upp *den gråaste dag av alla*.
        'The beautiful colors light up *the grayest day of all*.'

(25)   *Den som aldrig annars kan äta kakor blir överlycklig för *den slätaste bulle av
        alla*.
        'Someone who can't otherwise eat cookies gets overjoyed about *the plainest
        bun of all*.'

This fact is a straightforward consequence of the fact that elative superlatives do not involve comparison among a set of individuals.

    Finally, elatives behave differently from ordinary superlatives in the plural. Plural superlatives on a non-elative interpretation pick out pluralities whose members may very well differ from each other with respect to the relevant gradable property. For example, *the tallest mountains* picks out a plurality whose members may not all have the property *tallest mountain*. There is some threshold of tallness above which we find the mountains satisfying the plural superlative description (Stateva 2005; Fitzgibbons et al. 2009; Hackl 2009; Yee 2011). The same is not true for plural elative superlatives. Take the following examples:

---

[12]Thanks to Jason Merchant for suggesting this test.

(26)   Men allt är gjort i *de lättaste material*.
        'But everything is done in *the lightest materials*.'

(27)   ...där alla arbetarna sitter tysta och sammanbitna och täljer på *de underligaste trästycken*.
        ... where all the workers sit silently with their mouths clenched and carve *the strangest wooden pieces*.

The elativity distributes, as it were, across the individuals of the plurality; (26) implies that each of the materials involved is of maximum lightness, and in (27) each of the wooden pieces is of maximum strangeness.

We conclude that it is indeed the case that the superlative adjective in a quasi-definite is interpreted elatively. Unlike its competitors, the analysis according to which the definite article signals definiteness with respect to a property of degrees has the potential to explain this special connection to a degree-based phenomenon. We will show exactly how this works in Sect. 5. Another prediction of the analysis on which the definite article signals definiteness at the degree level (and not the individual level) is that quasi-definites as a whole are indefinite. The next section is devoted to that issue.

3 Definiteness

Morphologically, quasi-definites give mixed signals as to whether they are definite. On the one hand, they lack a definite suffix. On the other hand, they contain a definite article. The morphology of the adjective also signals definiteness; the superlative adjective occurs in the 'weak' form (e.g *grå-ast-e* 'gray-SUP-W', as opposed to the strong form *grå-ast* 'gray-SUP'), and a weak ending on an adjective normally signals definiteness in a singular noun phrase. Any adjectival modifiers following the superlative in a quasi-definite will occur in the weak form as well, as Teleman et al. (1999) point out, using the following example:[13]

(28)   den tystast-e   lill-a   mus
        the quietest-W little-W mouse
        'the quietest little mouse'

Which of the morphological indicators should we believe? Are quasi-definites definite or indefinite, or neither, or both, or somewhere in between? Teleman et al. (1999) and Julien (2005) contend that they are indefinite; Stroh-Wollin and Simke (2014, p. 101) write that they are "semantically quasi-definite", although they do not explicate this notion.[14] In this section, we will establish that they are semantically indefinite, although they do not behave entirely like ordinary indefinites.

3.1 Presentational constructions

It is well-known that presentational *there*-constructions in English are subject to a definiteness restriction (Milsark 1977; Barwise and Cooper 1981; McNally 1992;

---

[13] Volume III, p. 79.

[14] This description was chosen independently of our choice of label for the construction, coincidentally.

Abbott 1997; Ward and Birner 1995; Zucchi 1995; Francez 2009, i.a.). As in English, presentational constructions are subject to a definiteness restriction in Swedish:

(29)   Det sitter {en prinsessa, *prinsessan} i tornet.
        'There sits {a princess, *the princess} in the tower.'

And as noted by Delsing (1993) and Julien (2005), quasi-definites can occur in presentational constructions:

(30)   Det sitter *den vackraste prinsessa* i tornet.   (Delsing 1993)
        'There sits the most beautiful princess in the tower.'

Quasi-definites thus pattern with indefinites with respect to this diagnostic.[15] (If the suffix were present in (30), the example would no longer be acceptable.)

Example (30) is stylistically marked; Swedish speakers report that it sounds like so-called *sagostil*, the style of fairy tales. It is possible to find such examples in modern texts though.

(31)   Det finns inte *den minsta anledning* att vara orolig.
        'There isn't *the slightest reason* to be worried.'

(32)   Om det finns *den minsta risk* för detta eller osäkerhet om ...
        'If there is *the slightest risk* of that or uncertainty about ...'

As we will discuss more below, quasi-definites involving *minsta* are a bit special in that they appear to be negative polarity items. But this pattern is not limited to such cases. Teleman et al. (1999, Volume III, p. 80) give the following example:

(33)   Det härskade *(den) största oordning* i huset.
        'There was *the greatest disorder* in the house.'

And a wider range of examples can be found through Google searches:

(34)   Det rådde *den allra största vänskap* mellan de två skolmästarna.
        'There was *the absolute greatest friendship* between the two schoolmasters.'

(35)   Nu såg han oavvänt på sin hustru, såg djupt in i hennes raffinerat melerade nöt-
        bruna ögon, in i de rena ögonvitorna där det fanns *den allra lättaste anstrykn-*
        ing av mjölkaktigt blått.
        'Now he looked steadily at his wife, looked deep into her refined mottled hazel
        eyes, into the pure whites of the eyes, where there was *the absolute lightest*
        touch of milky blue.'

So quasi-definites are used productively in the pivot of presentational constructions.

3.2 Anaphora

A further indication that quasi-definites are semantically like indefinites is that they have limited anaphoric potential in entailment-cancelling environments. Recall that

---

[15]Fauconnier (1975b) made the same observation about so-called 'quantificational superlatives'; e.g. *There isn't the faintest noise he can stand*, which can be paraphrased, *There isn't any noise he can stand*, and where the superlative phrase is in the pivot of a presentational construction.

while ordinary indefinites do establish discourse referents for subsequent anaphora (as in *A man came in. He sat down*), the 'lifespan' of the discourse referents that they establish, to use Karttunen's (1976) terminology, is limited to the scope of surrounding entailment-cancelling operators such as negation. This is not true of definites, hence the following contrast:

(36)   a.   I didn't see *the movie* last night. *It* looked boring.
         b.   I didn't see *a movie* last night. #*It* looked boring.

Example (36b) is unacceptable on a narrow-scope reading for the indefinite, where the first clause means that there was no movie seen by the speaker ('It is not the case that there is a movie that I saw last night').

We see the same kind of effects with quasi-definites. For example, the quasi-definite under the negated possibility modal in (37) cannot be resumed by a pronoun. (Notice that the translation to English is also quite strange.)

(37)   Stjärnan kunde inte iakttas ens med *det starkaste teleskop*. #I själva verket finns det tusentals planeter som inte kan iakttas med *det*.
       'The star couldn't be observed even with *the strongest telescope*. #In the universe there are thousands of planets that cannot be seen with *it*.'

Note that (37) would be rescued by adding a definite suffix to *teleskop*; in that case the meaning would be 'The star can't be observed with the strongest telescope', where 'the strongest telescope' refers to a particular telescope.

Similar effects can be found in the absence of negation, in the presence of a modal or a generic interpretation. For example, (38a) (a naturally occurring and poetic bit of wisdom containing the modal *kan* 'can') cannot be followed by (38b).

(38)   a.   Ett litet skämt <u>kan</u> skingra *det tätaste allvar$_i$*.
           'A little joke <u>can</u> disperse *the tightest seriousness*.'
       b.   #Jag vet inte om det finns något annat som kan skringra *det$_i$*.
           'I don't know if there is anything else that can disperse *it$_i$*.'

We also find this kind of effect in sentences with a generic or habitual interpretation, where the quasi-definite cannot be resumed outside the scope of the generic context:

(39)   a.   Även *det enklaste anfall$_i$* börjar med försvarsspel.
           'Even *the simplest attack* begins with defense.'
       b.   #Vi kommer att öva på *det anfallet$_i$* idag.
           'We will practice *that attack$_i$* today.'

Modals and genericity can also limit the anaphoric potential of indefinites, as in the following English examples:

(40)   a.   A little joke can lighten up *a serious situation$_i$*.
       b.   #I don't know of anything else that can lighten *it$_i$* up.

(41)   a.   Even *a simple attack$_i$* begins with defense.
       b.   #We will practice {*it*, *that attack*}$_i$ today.

The same is true of indefinites in Swedish. This is not characteristic of definites; anaphora would be possible if we were to replace *a* with *the* in the above examples.

So quasi-definites have a limited ability to establish discourse referents, and in this respect they behave like indefinites.

But quasi-definites *do* sometimes license anaphora. An anaphor can be used to refer back to the princess in (30), for example:

(42)   a.   Det sitter *den vackraste prinsessa$_i$* i tornet.
            'There sits *the most beautiful princess$_i$* in the tower.'
    b.   *Hon$_i$* väntar på att prinsen ska komma.
            '*She$_i$* is waiting for the prince to come.'

Presentational constructions are part of a larger class of examples in which the existence of an entity satisfying the description is at some level the main point of the utterance, such as (43a), which can be followed by (43b):

(43)   a.   Här gömde sig en rätt fylld med *det möraste lamm$_i$*.
            'Here was hidden a dish filled with *the tenderest lamb$_i$*.'
    b.   *Det$_i$* formligen smälte i munnen.
            '*It$_i$* practically melted in the mouth.'

In general, when existence is entailed, anaphora is possible.

And like indefinites, quasi-definites license anaphors from the antecedent of a conditional, as in the following examples (from Google):

(44)   Har du *den minsta fråga$_i$*, ställ *den$_i$* här eller SMS:a till ...
       'If you have *the slightest question$_i$*, pose *it$_i$* here or text to ...'

(45)   Om du har *den minsta chans$_i$* att kunna göra Bibeläventyret i ditt arbete eller på din fritid—ta *den$_i$* och gå kursen!
       'If you have *the slightest chance$_i$* to do the Bible Adventure through your work or in your free time—take *it$_i$* and do the course!'

As is well-known, indefinites also license anphora from the antecedent of a conditional (Geach 1962; Heim 1982; Kamp 1981; Kamp and Reyle 1993).

(46)   If *a farmer$_i$* owns *a donkey$_j$*, then *he$_i$* beats *it$_j$*.

We also find quasi-definites licensing anaphora from the consequent of a conditional.

(47)   Även *den skickligaste simmare$_i$* är chanslös, om *han$_i$* hamnar mitt i en sådan ström.
       'Even *the most skillful swimmer$_i$* is without a chance, if he finds himself in that kind of current.'

This is true of indefinites as well (Barker and Shan 2008):[16]

(48)   A farmer beats a donkey if he owns it.

So quasi-definites have indefinite-like anaphoric potential (setting aside their limited scope options).

---

[16]Chierchia (1995, p. 129) also gives this example of anaphora licensing from the consequent, where the anaphor precedes it antecedent: *If it is overcooked, a hamburger usually doesn't taste good.*

Thus quasi-definites do introduce discourse referents (just as indefinites do), although their lifespan is limited in the context of entailment-cancelling operators including negation, modals, generic operators, and conditionals (just as with indefinites).

3.3 Uniqueness

Julien (2005) proposes to analyze the definite article in Swedish as a marker of uniqueness (*maximality*, to be precise, in order to accommodate plural cases), and the suffix as a marker of what she calls 'specificity'. We will address the claim about the suffix in Sect. 5.1.1. Let us now consider whether quasi-definites signal uniqueness at the level of ordinary individuals.

It turns out that they do not. We can see this using a VP-ellipsis test:

(49)   Logotypen gör nu *det proffsigaste intryck* och det gör webbsidan också.
       'The logotype gives *the most professional impression* and so does the web page.'

(50)   Hon kommer att kläs i *den vackraste skrud*, och det ska hennes syster också.
       'She is going to be dressed in *the most beautiful garb*, and her sister will be, too.'

(51)   Hans lagar *den finaste mat*, och det gör Rikard också.
       'Hans prepares *the finest food*, and Rikard does too.'

None of these examples implies that the two protagonists bear the relevant relation to the same object (give the same impression, wear the same clothes, or prepare the same food). They imply only that both bear the relevant relation to something of the relevant sort that is high on the relevant scale (e.g. give an extremely professional impression). So the definite article does not signal uniqueness at the level of ordinary individuals in quasi-definites.

Taken together, the evidence we have seen so far in Sect. 3 shows that quasi-definites are semantically indefinite.[17] This conclusion is very much in line with what previous scholars have concluded. Julien (2005), for example, also implies that quasi-definites are semantically like indefinites. She writes (p. 41), "Since this definiteness is confined to the adjectival phrase, it does not give rise to the readings that go with definiteness features that are located in *n* or D," where the definiteness features that are located in *n* and D are, according to Julien, specificity and uniqueness, the (only) two components of definiteness. As noted above, Teleman et al. (1999) also claim that this construction is semantically indefinite. So this conclusion is not particularly controversial, although the evidence we have given here has not been brought to bear on the issue. What has not been argued before is that quasi-definites do not behave entirely like ordinary indefinites, as we discuss next.

---

[17]Coppock and Beaver (2015) use the term 'indeterminate' rather than 'semantically indefinite', in order to avoid associating any particular semantic content with the morphological category of definiteness. They argue in particular that definites in English can be interpreted either determinately (referring to an individual), or indeterminately (in which case existential import is not presupposed but rather part of the at-issue content). In these terms, what we have concluded here is that quasi-definites are *indeterminate*.

3.4 Scope

Quasi-definites have more limited scope options than ordinary indefinites. An ordinary indefinite, as in example (36b) from above ("I didn't see *a movie* last night. #*It* looked boring."), would be acceptable on a wide-scope reading: 'There is a movie that I didn't see last night'. (To bring out the wide-scope reading, imagine the sentence in the context of the question, 'Why are they upset with you?') Ordinary Swedish indefinites can also take wide scope over negation; take for example:

(52) Jag hälsade inte på *en gäst* igår (och det visade sig att *hon* var väldigt berömd).
      'I didn't greet *a guest* yesterday (and it turned out that *she* was very famous).'

And yet there is no wide-scope reading for the quasi-definite in (37) from above, repeated here as (53).

(53) Stjärnan kunde inte iakttas ens med *det starkaste teleskop*. #I själva verket finns det tusentals planeter som inte kan iakttas med *det*.
      'The star couldn't be observed even with *the strongest telescope*. #In the universe there are thousands of planets that cannot be seen with *it*.'

If there were a wide-scope reading, then the anaphor should be licensed.
    The same observation can be made for (15) above, repeated here:

(54) Uppenbarligen fyller dessa gamla gregorianska kyrkosångare ett behov som inte *den smartaste skivbolagsdirektör* hade en aning om att det existerade.
      'Apparently these old Gregorian church singers fulfill a need that *the smartest record company director* didn't have any idea existed.'

This does not have a reading that could be paraphrased, 'There was an extremely smart record company director who didn't know that the need for these Gregorian church singers existed', and subsequent anaphora would only be appropriate if a definite suffix were added to the head noun.
    We can also see scope restrictions with respect to modals in the following example, a shortened version of (14):

(55) *Det kortaste ärende* kunde ta över en halvtimme.
      '*The shortest errand* could take over a half hour.'

This does not have a reading: "There was a very short errand that could take over half an hour." It has only an interpretation where the possibility modal takes wide scope over the existential quantifier. The same is true in the following example:

(56) Att som före detta filmstjärna på bio tvingas ta steget ner till tv-seriernas värld kan knäcka *den kaxigaste skådis*.
      'To as a previous film-star be forced to step down to the TV-series world can crack *the cockiest actor*.'

This example has no reading 'There is an extremely cocky actor that stepping down to the TV-series world can crack.'

Comparatives provide another environment where quasi-definites behave slightly differently from ordinary indefinites. Consider the following two examples:

(57) Han är teknikern, som trollar med klubban och pucken, elegantare och kvickare än *den flinkaste ryss*.
'He's the technician who conjures magic with his club and the puck, more elegant and quick than *the nimblest Russian*.'

(58) Ett VM-brons i fotboll är värt betydligt mer än *den ädlaste medalj* i brottning, det ska ni veta.
'A World Cup bronze in soccer is worth significantly more than *the noblest medal* in wresting, I'll tell you that.'

In (57), we do not get a reading, 'there is an extremely nimble Russian that he is more elegant and quick than'. Rather, the reading is like the one that English *any* gets in comparative constructions: 'He is more elegant and quick than any (extremely nimble) Russian.' Analogous observations can be made for (58). This behavior can be seen as a scope restriction, depending on the analysis; see Aloni and Roelofsen (2014) on indefinites in comparatives.

However, it is possible for quasi-definites to take wide scope. An example of this is the following constructed example:

(59) Alla rummen var målade i *den fulaste färg*—en illgrön nyans som påminde om Lisebergskaninerna.
'All of the rooms were painted in *the ugliest color*—a sickly green shade that was reminiscent of the Liseberg rabbits.'

This sentence has a wide-scope reading for the quasi-definite, which can be paraphrased, 'There is an extremely ugly color that all the rooms were painted in.' and the existence of this reading is shown by the continuation, which identifies the exact color in question. So quasi-definites appear to have a greater penchant for narrow scope than ordinary indefinites, but are not completely resistant to wide scope interpretations.

4 Polarity and emphasis

4.1 Polarity

We established in the previous section that quasi-definites are indefinites that typically take narrow scope, but can under some circumstances take wide scope, as shown in (59). In this section, we connect these facts to their pragmatics. We argue that quasi-definites, because they contain elative superlatives, are inherently emphatic, and this places certain restrictions on their distribution, and renders sentences containing them resistant to polarity reversals.

Indeed, some quasi-definites are negative polarity items, as previous scholars have noted.[18] Julien (2005, p. 36) gives the following example from Norwegian, noting that *den fjernaste aning* 'the faintest idea' is an "idiomatic negative polarity item":

---

[18]By 'negative polarity item', we mean expressions like *ever*, which cannot be used in simple positive sentences (e.g. **I ever go shopping*) but can be used in negative environments (e.g. *I don't ever go shop-*

(60) Ho hadde ikkje *den fjernaste aning*.   [Norwegian]
      'She did<u>n't</u> have *the remotest idea*.'

The most idiomatic correlate in Swedish is *den blekaste aning*, as in the following example.

(61) Justitieministern har <u>inte</u> *den blekaste aning* om hur det är att sitta i fängelse.
      'The Minister of Justice does<u>n't</u> have *the faintest idea* about what it is like to be in prison.'

Removing negation in (61) leads to unacceptability.[19]

Quasi-definites involving *minsta* 'smallest/least' also tend to be restricted to NPI-licensing environments, and some are listed as negative polarity items by Teleman et al. (1999, Volume 4, p. 187ff.). Here is one example:

(62) Levern har <u>inte</u> visat *det minsta tecken* på avstötning.
      'The liver has<u>n't</u> shown *the slightest sign* of rejection.'

In the Korp-200 sample, *minsta* is used in combination with several different nouns including *aning* 'idea', *ansvar* 'responsibility', *spår* 'trace', *tecken* 'sign', *lust* 'desire', *risk* 'risk', *intresse* 'interest', and *inslag* 'element', and all occurred in a negative polarity item licensing environment.[20] These kinds of examples can be classified as 'minimizer NPIs', along with English examples like *an iota* and *a red cent*, as they describe very small things.[21]

---

ping), among certain others including conditionals and questions (*If I ever go shopping, I will buy it*; *Have you ever gone shopping?*). How to define and characterize the distribution of negative polarity items is controversial and has been much discussed; see Giannakidou (2011) for a recent overview on this topic.

[19]In a sample of 100 uses of *den blekaste aning* randomly drawn from Swedish written corpora (*Göteborgs-Posten*), every single one occurred in a negative environment.

[20]These kinds of expressions do not have the same distribution as the English NPIs *any* and *ever*. There is a set of non-NPI-licensing environments where expressions like *den blekaste aning* are acceptable, such as the following variant on (61).

   (i) Justitieministern har bara *den blekaste aning* om hur det är att sitta i fängelse.
        'The Minister of Justice has only *the faintest idea* what it is like to be in prison.'

Naturally-occurring examples of this type, where a quasi-definite that would normally be thought of as a negative polarity item occurs in the restrictor of *only*, can be found as well:

  (ii) Ingen kan förneka att ECT är en genomträngande chock för hjärnan, ett organ som är enormt komplicerat och som vi bara har *den ringaste förståelse* för.
        'Nobody can deny that ECT is a penetrating shock for the brain, an organ that is enormously complicated and which we only have *the slightest understanding* of.'

As discussed by Wagner (2005), even though *only* licenses NPIs in its scope, the restrictor of *only* is not Strawson Downward-Entailing, and it does not license NPIs:

(iii) *Only anyone's parents showed up at the graduation.

So these quasi-definites cannot be classified strictly as negative polarity items, even though their distribution is heavily weighted toward negative environments.

[21]Israel (2011, 24) characterizes minimizers as follows: "The most well-known and widely attested sort of polarity item, however, is probably the minimal unit, or minimizer NPI. These forms consist minimally of a singular indefinite NP used to denote a minimal unit or degree of some sort (Bolinger 1972, 17).

But there are also examples in positive environments, as we have seen above. Some of these involve *största* 'biggest', the antonym of *minsta* 'smallest', as in (2a) above, and in:

(63)   Även *det största problembarn* är lämpat för en ljus framtid.
        'Even *the biggest problem-child* is suited for a bright future.'

Other cases of quasi-definites in positive environments include (26) and (43a), repeated here:

(64)   Här gömde sig en rätt fylld med *det möraste lamm*.
        'Here was hidden a dish filled with *the most tender lamb*.'

(65)   Men allt är gjort i *de lättaste material*.
        'But everything is done in *the lightest materials*.'

We can see that these examples are not in downward-entailing environments by applying the usual substitution tests; for example, (65) does not entail that everything is done in the lightest materials made of cotton.

In cases like these, *adding* negation can make the sentence sound strange. Example (66a), a shortened version of (12), is perfectly acceptable, but the negated version (66b) strikes one as very odd.

(66)   a.   Eva är nöjd med *den slätaste bulle*.
              'Eva is satisfied with *the plainest bun*.'
        b.   #Eva är *inte* nöjd med *den slätaste bulle*.
              'Eva is *not* satisfied with *the plainest bun*.'

Example (66a) suggests that Eva is very easy to please, but does not suggest that she prefers a plain bun to something more elaborate. Example (66b), in contrast, could only be contextualized under the odd assumption that plainness is a desirable quality, so that the plainer a bun is, the easier it would be to please Eva with it.

The kind of polarity sensitivity that quasi-definites exhibit is quite sensitive to lexical semantics. If we replace *slätaste* 'plainest' with *godaste* 'most delicious', the pattern reverses itself. In this case, it is the version *without* negation in (67a) which sounds strange, and the negated version in (67b) is the one that sounds acceptable.

(67)   a.   #Eva är nöjd med den godaste bulle.
              'Eva is satisfied with the most delicious bun.'
        b.   Eva är inte nöjd med den godaste bulle.
              'Eva isn't satisfied with the most delicious bun.'

Typical examples in English include *an iota*, *a jot*, *a thing*, *a red cent*, *a plugged nickel*, *a thin dime*, *a pin*, *a (living) soul*, *a stick (of furniture)*, *a stitch (of clothing)*, *an inkling*, and *a shred (of evidence)*, among many others. Usually such minimizing indefinites are limited to occurring as a direct object in just one or a few idiomatic VP constructions: e.g. *drink a drop*, *sleep a wink*, *lift a finger*, *give a damn*, *spend a red cent*, *budge an inch*, *bat an eyelash*, *hold a candle to*, *miss a beat*, *show a spark of decency*, and *hurt a fly*. In such constructions, the indefinite NP serves as an incremental theme of some sort, though often with a highly idiomatic sense: thus, for example, the fly in *hurt a fly* seems to denote a minimal unit of harm, while the candle in *hold a candle* to represents a minimal degree of comparative worth—the degree, that is, to which something shines."

Example (67a) would have the very odd implication that the more delicious a bun is, the more difficult it is to please someone with it, as if being delicious were not pleasing. Example (67b) does not have this implication; it sounds as if Eva is picky, but it does not sound as if she would prefer a less delicious bun over a more delicious one. Thus even when it does not impact the acceptability of the sentence, negation changes the underlying assumptions, just as the choice of positive or negative adjectives.

Note also that not all of the quasi-definites that happened to occur in NPI-licensing environments are restricted to such environments in principle. Consider (19a), repeated here as (68a).

(68) a. . . . sådant som inte kunde iakttas ens med *det starkaste teleskop*.
          '. . . things that couldn't be observed even with *the strongest telescope*.'
      b. #. . . sådant som kunde iakttas med *det starkaste teleskop*.
          '. . . things that could be observed with *the strongest telescope*.'

The example without negation, (68b), would be a very strange thing to say. But *det starkaste teleskop* is not an NPI. It can occur in straightforwardly positive environments; the following constructed example is acceptable:

(69) En vanlig kamera fungerar lika bra som *det starkaste teleskop*.
      'A regular camera works as well as *the strongest telescope*.'

If "polarity items are forms or expressions whose interpretation or acceptability depends on the polarity of the contexts in which they occur" (Israel 2011), then quasi-definites are not, as a rule, polarity items, and this quasi-definite in particular is not. So the reason that removing negation in this case makes the sentence unacceptable is not that the phrase is a polarity item. This raises the question: why, then, does removing negation render the example unacceptable?

4.2 Emphasis

The constraints governing the use of quasi-definites fit Krifka's (1995) characterization of the pragmatics of emphatic prosody, according to which emphasis requires that the assertion is stronger than all of its alternatives. Consider the following example, where capital letters indicate emphasis:

(70) John would distrust Albert SCHWEITzer!

Krifka's idea is that in order for this to be felicitous, "John would distrust Albert Schweitzer" must be stronger than all alternatives of the form "John would distrust X". Assume that an assertion is stronger than another if it is the more surprising of the two. Then the felicity conditions on (70) can be satisfied if Albert Schweitzer is more trustworthy than any relevant alternative individual. Krifka's principle can be spelled out as follows:

(71) **Emphatic assertion principle**
      It is felicitous to assert ϕ emphatically in context c only if it is stronger than all of its expression-alternatives in c.

By 'expression-alternatives', we mean alternative ways the speaker could have expressed him- or herself, like the other elements of a Horn scale, if the expression is part of a Horn scale, or Chierchia's (2006) 'scalar alternatives'. 'Strength' is characterized in terms of what is more or less surprising: *A* is stronger than *B* if *A* is more surprising than *B*.

Similar conditions have been advocated for the scalar particle *even*, at least in positive environments (Karttunen and Peters 1979; Rooth 1985; Kay 1990; Wilkinson 1986; Lahiri 1998; Giannakidou 2007; Crnič 2011, i.a.). For example, *Even JOHN arrived late* suggests that John is the least likely of the relevant individuals to have arrived late. In general, the clause that so-called 'weak *even*' attaches to ought to be the most surprising of its focus alternatives; in other words, that clause must meet the conditions for emphatic assertion à la Krifka.

The same kind of condition has been invoked in order to explain the distribution of minimizing NPIs as in *drink a drop*, *lift a finger* and *give a damn*, in combination with specific assumptions about their alternatives. In his groundbreaking article, Krifka (1995) shows for example that by assuming that *a drop* is subject to the principle of emphatic assertion, and that its alternatives are other, larger quantities of liquid, it is possible to derive its status as a negative polarity item. Chierchia (2013), building closely on work by Lahiri (1998), implements a similar insight in terms of a silent operator E (for 'even'), which introduces the presupposition that all of the expression-alternatives are less surprising than the semantic content of the clause to which it attaches. This operator serves to value a feature σ, introduced by inherently emphatic items such as minimizer NPIs. Following a less formal tradition, Israel (2011) proposes to give a unified treatment of all kinds of polarity sensitivity in terms of this kind of scalar reasoning (though see Chierchia 2013, p. 82f. for skepticism as to whether such a model can cover all cases).

The data we have just seen can be understood under the assumption that elative superlatives are *inherently emphatic* in the same sense: They must be in a clause that meets the conditions for emphatic assertion, *with expression-alternatives involving lower degrees*. More specifically, the alternatives are identified as follows: Assume that a sentence containing an elative superlative has a meaning of the form "... to the highest degree". The expression-alternatives are variants of the sentence where the highest degree is replaced by a lower degree. We may call these alternatives *degree alternatives* for short. For example, the degree alternatives for (66a) above ("Eva är nöjd med *den slätaste bulle*" ∼ 'Eva is satisfied with *the plainest bun*') are as follows:

(72)   Eva is satisfied with a d_1-plain bun
         Eva is satisfied with a d_2-plain bun
         Eva is satisfied with a d_3-plain bun
         ...
         Eva is satisfied with a d_n-plain bun

where $d_1, \ldots d_n$ are degrees of plainness. The maximum degree of plainness is the one picked out by the elative superlative expression. The alternative expressions all involve smaller degrees of plainness. What it means for elatives to be inherently emphatic is that the proposition corresponding to the maximum degree must be more

surprising than all of the degree alternatives. In other words, there must be an alignment between the degree scale and the scale of likelihood for the degree alternatives.

Note that this requirement very much echoes Fauconnier's (1975b) 'scale principle', according to which a 'quantifying superlative' corresponds to the most specific end of an entailment scale, where the scale elements correspond to propositions formed by abstracting over parts of the sentence in question. According to Fauconnier, for a case like (73), the alternative propositions are of the form 'x bothers y', for noises x of various strength.[22]

(73)   The faintest noise bothers my uncle.

Here we have a 'quantifying superlative', as diagnosed by the *any*-substitution test: The sentence can be paraphrased, *Any noise bothers my uncle*. It is reasonable to assume that if the faintest noise bothers y, then any fainter noise will bother y. Fauconnier's observation is that superlatives have a quantifying reading when their surrounding assertion lies at the most specific end of an entailment scale. What we are saying here builds on very similar ingredients, but is slightly different: The claim is that elative superlatives require their surrounding clause to be at the top of the scale of pragmatic strength, and are not licensed unless that is the case.

Note also that in the above formulation we specified that the surrounding *clause* must *meet the conditions for emphatic assertion* because the relevant unit for computing whether the condition is met is not always the root clause (and hence not always asserted). The relevant unit can for example be a relative clause, as we see in (13) ('...things that couldn't be seen even with *the strongest telescope*'). Similar observations have been made for negative polarity items, leading Baker (1970, 178) to characterize the situation as follows:

> We can think metaphorically of a presentational negative element as giving off paint, which spreads through any structure within the scope of that negative element. The flow of paint can, however, be stopped at any S, so that each S represents a sort of valve which, if shut, stops the flow of paint. However, if a valve is left open, the flow of paint cannot be stopped again except by some lower S.

While a detailed discussion of the locality conditions for licensing elative superlatives would take us beyond the scope of this paper, it is clear that local licensing is to some extent possible, and an implementation of Baker's (1970) characterization may capture the conditions accurately. Chierchia's (2013) detailed treatment of intervention and locality for alternative-sensitive pragmatic operators in the grammar is a good candidate for such an implementation.

Let us consider an example to see how this works. Recall the contrast in (66a), repeated here as (74a) and (74b). Uttering (74a) conveys that Eva is easy to please when it comes to baked goods.

---

[22]It is not clear why Fauconnier chooses to abstract over the bother-ee y as well as the botherer x but it is interesting to note that Malte Zimmermann recently carefully argued for a similar conclusion regarding the licensing conditions for *even* (Zimmermann 2015).

(74) a. Eva är nöjd med *den slätaste bulle*.
          'Eva is satisfied with *the plainest bun*.'
      b. #Eva är *inte* nöjd med den slätaste bulle.
          'Eva isn't satisfied with *the plainest bun*.'

What our analysis requires is that (74a) is stronger than all alternatives of the form
Eva is satisfied with a bun that is plain to degree d, where *d* is a degree below the
maximum degree. For example, it is required that "Eva is satisfied with the plainest
bun" is stronger than "Eva is satisfied with a medium-plain bun" and "Eva is satisfied
with a bun that is not at all plain". This is the case assuming that people are more
likely to want fancy cakes than plain buns. Then it is more surprising that Eva can be
satisfied with the plainest bun then that she can be satisfied with a less plain bun. We
can notate this visually as follows, where the sentence in question is in bold:

(most surprising)	**Eva is satisfied with the plainest bun**.
↕	Eva is satisfied with a medium-plain bun.
(least surprising)	Eva is satisfied with a non-plain bun.

In (74b), in contrast, the assertion is the least strong of the degree alternatives,
assuming again that plain buns are harder to satisfy people with than fancy buns (or,
in other words, that people are less likely to be satisfied with a plain bun than with a
non-plain bun).

(most surprising)	Eva isn't satisfied with a non-plain bun.
↕	Eva isn't satisfied with a medium-plain bun.
(least surprising)	**Eva isn't satisfied with the plainest bun**.

But of course if we change our assumptions about what kinds of buns are likely to
satisfy Eva, then we can make the sentence felicitous. In particular, if we assume
that Eva is a very picky eater and prefers plain buns to fancy buns, then it is more
surprising that she isn't satisfied with the plainest bun than that she isn't satisfied
with a less plain bun. This explains why the sentence is felicitous only under changed
assumptions about buns.[23]

This analysis also correctly predicts that by changing *slätaste* 'plainest' to *godaste*
'most delicious', we will reverse the pattern of acceptability. Consider the examples
below.

(75) a. #Eva är nöjd med *den godaste bulle*.
          'Eva is satisfied with *the most delicious bun*.'
      b. Eva är *inte* nöjd med *den godaste bulle*.
          'Eva isn't satisfied with *the most delicious bun*.'

Now it is the example without negation, namely (75a), that is unacceptable and the
one with it, namely (75b), that is acceptable. This is of course because it is easier
to satisfy people with delicious buns than less delicious buns, so not being satisfied
with a maximally delicious bun is quite surprising. We can represent this visually as
follows. In (75a), the assertion is the weakest of the degree alternatives:

---

[23]Note that an analysis that did not require alignment between the degree scale and the scale of pragmatic
strength would lack the resources for explaining how implications about relative likelihood of alternative
propositions come about.

(most surprising)	Eva is satisfied with a non-delicious bun.
↕	Eva is satisfied with a medium-delicious bun.
(least surprising)	**Eva is satisfied with the most delicious bun**.

In (75b), the assertion is the strongest of the degree alternatives:

(most surprising)	**Eva isn't satisfied with the most delicious bun**.
↕	Eva isn't satisfied with a medium-delicious bun.
(least surprising)	Eva isn't satisfied with a non-delicious bun.

Example (75a) is extremely hard to contextualize, harder than (74b), so in this case the presence or absence of negation affects acceptability more strongly.

For another example, consider the contrast between (19a), repeated here as (76a), and a version of it without negation, (76b).

(76)   a.   ... sådant som inte kunde iakttas ens med *det starkaste teleskop*.
           '... things that couldn't be observed even with *a telescope of maximum strength*.'
      b.   [#]... sådant som kunde iakttas med *det starkaste teleskop*.
           '... things that could be observed with *a telescope of maximum strength*.'

That something cannot be seen with a very strong telescope is more surprising than that something cannot be seen with a medium-strong telescope. So there is an alignment between the scale of strength and the scale of surprisal in (76a). In (76b), there is no such alignment. It is not particularly surprising that something *can* be seen with a very strong telescope. What would be more surprising is if it could be seen with a less strong telescope.

Summarizing an elative superlative requires alignment between a rhetorical scale and a scale over degrees.[24] An elative superlative always picks out the top-ranked degree, and requires furthermore that the statement formed with this top degree is also at the top of another scale: the scale of suprisal, for the associated propositions. This explains why adding and removing negation can drastically affect the underlying implications or render examples unacceptable.

Assuming that elative superlatives are inherently emphatic also helps to explain why some quasi-definites behave as negative polarity items. In general, when the

---

[24]A reviewer rightly asks in what sense this scale is 'rhetorical'. One possible answer is as follows: The scale can be seen as 'rhetorical' insofar as it situates an assertion in the context of alternative assertions and can thereby serve as a tool to orient the listener in the larger rhetorical environment. This answer takes inspiration from Israel (2011, 9), who also sees the scale underlying emphasis and attenuation as rhetorical, although he takes the strength relation to be entailment rather than relative surprise: "There are a variety of ways one might understand 'strength' as a property of propositions—as, for example, its likelihood of being true (Karttunen and Peters 1979), its noteworthiness (Herburger 2000), its relevance (Rooij 2003), or its force as an argument for some conclusion (Ducrot 1973, 1980; Anscombre and Ducrot 1983). I follow Kay (1990, 1997) in defining the strength of a proposition directly in terms of its entailments: a proposition p is stronger than a proposition n if and only if p unilaterally entails n. I take it that while emphasis and attenuation are fundamentally rhetorical aspects of meaning, they are in fact grounded in this simple propositional logic. Marking an expressed proposition as either emphatic or attenuating is basically just a way of calling attention to its logical status with respect to background assumptions. But the act of calling attention itself is always rhetorically loaded. An argumentative operator thus does not add to the logical content of what is said but expresses an attitude about that content and so situates it in a larger context."

quasi-definite describes something very small or weak, it is predicted that there will be an affinity for negative (or downward-entailing) environments. Take *Han har inte den minsta aning* 'He doesn't have the slightest idea', vs. **Han har den minsta aning* 'He has the slightest idea'. With the former variant, the assertion is stronger than all of the alternatives, and this does not hold for the latter. The reasoning involved can be made explicit using analogues of Krifka's (1995) 'principle of extremity' and 'involvement of parts', used to explain why NPIs often denote very small entities (*a drop of wine*, *a red cent*) or entities with very low values on a scale (*lift a finger*, *bat an eyelash*). For example, Krifka's 'involvement of parts' assumption regarding *a drop* is that if someone drinks something, he or she drinks every part of it. The corresponding assumption for *den minsta aning* would be that if someone has an idea, he or she has every part of that idea. Krifka's 'principle of extremity' for *a drop* is that it should always be less probable that someone drank a minimal quantity of liquid than that someone drank a more substantial quantity of liquid. The corresponding principle of extremity for *den minsta aning* is that it should always be more probable that someone has a tiny idea than that someone has a larger idea. So 'He has an extremely small idea' is less surprising than 'He has a medium-small idea'. And on the other side, 'He doesn't have an extremely small idea' is *more* surprising than 'He doesn't have a medium-small idea', as required by the requirement that the rhetorical and degree scales are aligned. Together with the assumption that elative superlatives are inherently emphatic, this pattern of assumptions predicts that quasi-definites involving *minsta* will typically behave as negative polarity items.

For other quasi-definites, the scale of surprisal will typically align with the degree scale so they are felicitous in a positive sentence but not its negation. Many quasi-definites do not show any consistent affinity for one polarity or another. From the perspective we have outlined, it is to be expected that there are many fine shades of gray between quasi-definites that prefer positive environments and those that prefer negative ones. What unites quasi-definites is that they are inherently emphatic. Inherent emphasis, then, is a category that transcends polarity.

In this connection, it is useful to consider Israel's (2011) simple typology of polarity items, which encompasses two cross-classifying features: emphatic vs. attenuating, and being inherently high on a scale or being inherently low on a scale. Minimizer-NPIs like *a whit* are emphatic and low on a scale. The NPI *much*, as in *He doesn't talk much* is inherently high on a scale and has an attenuating function. *A ton* is inherently high on a scale, and inherently emphatic (according to Israel), from which it follows that it is a positive polarity item. PPIs also include items that are inherently low on a scale and attenuating such as *somewhat*. Quasi-definites can fall into either of the two 'emphatic' cells: PPIs with inherently high-on-scale items, or NPIs with inherently low-on-scale items. But they can also lack an inherent placement on a scale, in which case they acquire a preference for positive or negative environments depending on the context in which they appear.

4.3 Entailment down the scale and scope

4.3.1 Mere surprisal suffices

Many of the examples we have discussed have the property that the assertion involving a greater degree entails (or practically implies) variants with strictly smaller

degrees. For example, if someone is satisfied with the plainest bun, then, normally, someone is also satisfied with a less plain bun.[25] This raises the question of whether 'strength' ought to be characterized in terms of this sort of entailment, rather than surprisal, as Israel (2011) proposes for polarity items, building on Fauconnier's (1975a) characterization of the conditions governing 'quantificational' readings of superlatives. Fauconnier (1975a) noticed that examples like (77) have a 'quantificational' reading (='Norm can solve any puzzle'), and that this correlates with a certain kind of entailment.

(77)   Norm can solve the hardest puzzle.

As Israel (2011) writes (p. 59), "Very clever people can be confused by things which should be obvious, and very simple problems can sometimes baffle a brilliant mind. Still, an assertion that one can solve the most difficult puzzle normally invites the inference that one can in fact solve any puzzle." Fauconnier (1975a) calls this kind of entailment 'pragmatic entailment', and Israel characterizes it as follows (p. 59): "Pragmatic entailments assume a sort of ceteris paribus condition: they are inferences which do not necessarily hold in all the possible worlds, but just in all the worlds one might reasonably consider on any given occasion. They are thus practically, if not logically, valid." This looser sort of entailment holds in many of the cases we have seen.

However, there are cases in which this entailment property does not hold, including (64) and (65) above, as well as:

(78)   Han har *de bästa vitsord*.
         'He has *the best grades*.'

Example (78) does not imply that the protagonist ('he') has grades that are less than the best. Parallel observations can be made for (64) and (65). So there is no entailment down the scale in these cases.

This entailment property correlates perfectly with whether the meaning of the sentence can be reinforced by 'even'-like elements.[26] In positive environments, *even* corresponds to either *även* or *till och med* (lit. 'to and with'). We see *även* in (63), and we can add *till och med* to for example (11) without a change in meaning:

(79)   De vackra färgerna lyser upp <u>till och med</u> *den gråaste dag*.
         'The beautiful colors light up <u>even</u> *the grayest day*.'

In negative polarity environments, 'even' surfaces as *ens* in Swedish.[27] So we can make a parallel observation for (62) by inserting *ens*:

---

[25]Here we are not appealing to a monotonicity assumption of the kind made by Heim (1999) where for example being tall to degree d' entails being tall to degree d' if $d' < d$. We mean that variants of the assertion involving *strictly* lower degrees, excluding higher degrees, are entailed in some cases.

[26]Fauconnier (1975b) made the same observation about 'quantifying superlatives', writing that they "can be modified by *even* with no change in meaning" (p. 364), as illustrated by examples including '*Even* the faintest noise bothers him.'

[27]Based on Giannakidou's (2007) description, it appears that to a first approximation, *till och med* and *även* correspond to Greek *akomi ke* (positive 'even'), and *ens* corresponds to Greek *oute* (NPI 'even').

(80)   Levern har inte <u>ens</u> visat *den minsta tecken* på avstötning.
        'The liver hasn't <u>even</u> shown *the smallest sign* of rejection.'

This reinforces the close connection between quasi-definites and the semantics of *even*-like items. Both require the relevant clause to be stronger than all of its alternatives.

But there is a difference: *even* is, in addition, *additive,* carrying a presupposition that one of the alternatives holds (see e.g. Crnič [2011], p. 22f., i.a.).[28] The additivity presupposition is satisfied in case there is entailment down the degree scale, so *even* can be used to reinforce the meaning. But when there is no entailment down the degree scale, reinforcement with *even* is not possible. In the following cases, for example, the entailment property is lacking, and adding *till och med* 'even' sounds odd.

(81)   a.   Han har *de bästa vitsord*.
              'He has *the best grades*.'
              ↛ He has medium-good grades.
        b.   #Han har <u>till och med</u> *de bästa vitsord*.
              'He has <u>even</u> *the best grades*.'

(82)   a.   Men allt är gjort i *det lättaste material*.
              'But everything is done in *the lightest material*.'
              ↛ Everything is done in medium-light material.
        b.   #Men allt är gjort i <u>till och med</u> *det lättaste material*.
              'But everything is done in <u>even</u> *the lightest material*.'

(83)   a.   Här gömde sig en rätt fylld med *det möraste lamm*…
              'Here was hidden a dish filled with the most tender lamb…'
              ↛ Here was hidden a dish filled with medium-tender lamb
        b.   #Här gömde sig en rätt fylld med <u>till och med</u> *det möraste lamm*…
              'Here was hidden a dish filled with <u>even</u> *the most tender lamb*.'

These examples are not at all exceptional. The examples in Korp-200 are divided roughly equally among these two classes: cases where there is entailment down the scale and where *even* can be inserted to reinforce the meaning, and cases which lack both of these properties. We conclude that elative superlatives do not require entailment of the degree alternatives; greater surprisal value suffices.

4.3.2 … but entailment drives scope preferences

The previous section established that entailment down the degree scale does not always hold (i.e. alternatives corresponding to higher degrees do not always entail alternatives corresponding to lower degrees). However, there does appear to be a preference for interpretations on which there is entailment down the degree scale, and this preference results in a preference for certain scopings over others. As mentioned above, quasi-definites tend to take narrow scope, and this tendency is greater than

---

[28]Another difference is that elatives associate with degree alternatives, while *even* associates with focus alternatives.

for ordinary indefinites. Recall (53), showing that there is no wide-scope reading for *det starkaste teleskop* in *Stjärnan kunde inte iakttas ens med det starkaste teleskop* 'The star couldn't be seen even with the strongest telescope'. (Evidence that there was no wide-scope reading came from the awkwardness of subsequent anaphora.) A wide-scope reading would amount to 'There is a maximally strong telescope that the star cannot be seen with'. The degree alternatives would be of the form 'There is a telescope of strength d that the star cannot be seen with', for strengths d below the maximum strength. Not all such alternatives are entailed under this scoping—it is not entailed that for every degree d, there is a (merely) d-strong telescope that the star cannot be seen with. So there is no entailment down the scale on a wide scope reading. On a narrow-scope reading, there is entailment down the scale. If something cannot be seen with a telescope of maximal strength, then it cannot be seen with a less-strong telescope.

If the scope facts are driven by a preference for entailment scales, then it should be possible for a quasi-definite to take wide scope over another scope-bearing element if neither scoping yields an entailment scale. This was seen in example (59) above, repeated here:

(84)   Alla rummen var målade i *den fulaste färg*—en illgrön nyans som påminde
       om Lisebergskaninerna.
       'All of the rooms were painted in *the ugliest color*—a sickly green shade that
       was reminiscent of the Liseberg rabbits.'

Again, this sentence has a wide-scope reading for the quasi-definite, which can be paraphrased, 'There is an extremely ugly color that all the rooms were painted in'. In this case, the choice of scoping does not bear on whether there is entailment down the degree scale. Even if we took a narrow scope reading ('For each room, there was an extremely ugly color that it was painted in'), then we would not have entailment down the degree scale (because it would not be implied for each degree d that for each room, there was a color of ugliness d that it was painted in). So the choice is open.

We conclude that the scope possibilities for quasi-definites are limited not by some inherent referential deficiency, but rather by their rhetorical function. With respect to their referential properties, quasi-definites can be seen as being on a par with ordinary indefinites; apparent differences are driven by the pragmatics of emphasis, triggered by the presence of an elative superlative.

5 Formal proposal

5.1 Semantics

So far, we have established the following facts about quasi-definites:

– They occur only with superlatives, and in particular only with superlatives on an elative interpretation.
– They behave like indefinites with respect to their distribution and anaphoric potential.
– However, they have limited scope options and are sensitive to polarity reversals.

In this section, we develop a formal analysis of the semantics of quasi-definites accounting for the first two observations. In Sect. 5.2 we offer a syntactic analysis from which the semantics can be derived compositionally, but in the current section (Sect. 5.1), we focus on the semantics. (While this analysis is motivated by the pragmatic considerations discussed in the previous section, we will not go any further in making the pragmatics precise.)

We begin with the suffix, and argue for an analysis on which it, like the definite article, marks uniqueness. However, the definite article indicates uniqueness with respect to a property of degrees rather than individuals, and forms a semantic constituent with the superlative. Under this view, the combination of the definite article with the elative superlative affix denotes a degree which is higher than all other (contextually relevant) degrees. An example like *det starkaste teleskop* will thus end up with the meaning 'a telescope that is strong to the greatest degree'. This description need not uniquely characterize an individual, and if such uniqueness is not taken for granted in the discourse context, then the suffix is to be left off.

5.1.1 Suffix

Let us begin with the analysis of the suffix. As mentioned above, it has been proposed that the suffix is a marker of 'specificity' (Julien 2005, adopted by Alexiadou 2014). One reason to suspect that the definite suffix does encode specificity, as Julien says, involves evidence from minimal pairs as in the following example from Norwegian (Julien 2005, ex. 2.14 p. 36):

(85) a. De uppfører seg som *dei verst-e bøll-ar.*
          'They behave themsleves like *the worst brutes*.'
      b. De uppfører seg som *dei verst-e bøll-a-ne.*
          'They behave themselves like *the worst brutes*-DEF [and we know who they are].'

According to Julien, when the suffix is absent, the noun phrase gets an 'intensional' reading, by which Julien means that no specific set of brutes is referred to. When the suffix is present, there is a specific set of brutes, as shown in the English paraphrase. Similar examples are found in Swedish.

A similar contrast emerges with relative clauses. The following two examples are from Dahl (1978) and Delsing (1993, 119) respectively:[29]

(86) a. *Student-en [som har kört på den här skrivning-en] är en idiot.*
          '*The (particular) student [who has failed this exam] is an idiot*'
      b. *Den student [som har kört på den här skrivning-en] är en idiot.*
          '*Any student [who has failed this exam] is an idiot.*'

(87) a. %*Den sju-år-ig-e pojke-n [som klarar detta]* finns inte.

---

[29]The definite article may be used in the presence of a restrictive relative clause even in the absence of an intervening adjective. With non-restrictive relative clauses, the prenominal article cannot appear without an intervening modifier. Platzack (2000) gives a theory of non-restrictive relative clauses that aims to explain this. See also Hankamer and Mikkelsen (2002) for a discussion of the same phenomenon in Danish.

    b.   *Den sju-år-ig-e pojke [som klarar detta]* finns inte.
       '*The seven-year-old boy [who can do this]* does not exist.'
       (i.e. There is no such boy.)

    c.   *Den sju-år-ig-e pojke-n [som klarar detta]* finns inte längre.
       '*The seven-year-old boy [who can do this]* does not exist anymore.'
       (i.e. He has passed on.)

The presence or absence of a suffix in a noun phrase containing a relative clause can thus affect the meaning and/or the acceptability of the sentence (for some speakers). With the suffix, as in (86a), it is felt that a particular student is being referred to, and without the suffix, as in (86b), it is felt that a general statement is being made. The variant of (87) with the suffix, (87a), is felt by some speakers to both presuppose and deny that there is a boy of the relevant kind. Removing the suffix as in (87b) renders the sentence acceptable as a way of denying the existence of such a boy.[30]

    While not purporting to have a complete explanation for these contrasts, we would nevertheless like to convince the reader that the suffix is not a specificity marker. Recall that (87a) was argued to be unacceptable because the predicate *finns inte* 'does not exist' denies the existence of something, and this clashes with the notion that the subject is specific and therefore refers to some individual that the speaker has in mind. It seems quite reasonable indeed to assume that *finns inte* 'does not exist' creates an environment that is hostile to specifics. But if that is so, and if the definite suffix encodes specificity, then why would the definite suffix be not only possible but *required* in (88)?

(88)   *Den perfekta kamera-n* finns inte.
      '*The perfect camera*-DEF does not exist.'

A speaker who asserts that the perfect camera does not exist surely does not have an existing camera in mind as the referent for the description. One might want to argue that in some sense *den perfekta kameran* still does refer to a specific camera. But in that case *finns inte* is not an environment that is hostile to specifics, and the contrast in (87) does not provide evidence that the suffix encodes specificity. Either *finns inte* is not hostile to specifics, or the definite suffix does not encode specificity.

    Intensional verbs provide evidence for the latter. Consider the following example, where again the definite suffix is not only possible but required.

(89)   Varje musiker söker *det perfekta instrument-et*.
      'Every musician is looking for *the perfect instrument*-DEF.'

For every musician, there is a different perfect instrument, and the perfect instrument that the musician seeks may or may not exist, so this noun phrase is not specific in any of Farkas's (2002) senses. It does not refer to any individual that the speaker has in mind, so it is not *epistemically* specific; it does not have scope over *varje musiker* 'every musician', so it is not *scopally* specific; and it is not linked via a partitive

---

[30]Note that (87c) is acceptable, so if *finns* 'exist' is taken to denote a contingent and time-dependent property (what Coppock and Beaver 2015 refer to as 'narrow existence', following terminology used by Kripke 2011) and the specificity in question involves existence in a weaker sense (what they refer to as 'broad existence'), then the two kinds of existence are not coextensive and a contradiction is not inevitable is a sentence of this kind.

relation to a given discourse entity, so it is not *partitively* specific. Unless there is any other sense in which this noun phrase could be argued to be 'specific', we can conclude that it is not specific. And yet it bears the suffix.

Another kind of example in which a suffix occurs on a non-specific noun phrase involves the adjective *enda* 'only/sole' as in 'the only X'. As Coppock and Beaver (2012) discuss with respect to English, examples like (90) give rise to what they call "anti-uniqueness effects": For example, in the following case, it is implied that there are multiple sources of calcium in the diet.

(90)   Mjölk är inte *den enda källa-n till kalcium i kosten*.
        'Milk is not *the only source*-DEF *of calcium in the diet*.'

If there are multiple sources of calcium, then there is nothing satisfying the description 'only source of calcium in the diet'. This means that the existence presupposition that is normally associated with the definite article is absent here. In other words, there is no object to which *den enda källan till kalcium* 'the only source of calcium' refers.

So we conclude that the definite suffix in Swedish is not a marker of specificity, nor does it carry an existence presupposition. According to Coppock and Beaver (2012, 2015), this is true of English *the* as well, and not unusual for a definiteness-marker. On their view, definiteness-marking encodes a uniqueness presupposition, and existential import for definite, indefinite, and possessive descriptions arises through independent type-shifting operations.

Following Coppock and Beaver (2012, 2015), we analyze the definite suffix as a modifier of properties which is defined only if the input property has no more than one satisfier. Typically, the properties are of type $\langle e, t \rangle$, but below it will become crucial that we allow a wider range of types, including at least $\langle d, t \rangle$. Let us use THE as a name for the function that the definite suffix denotes, and define it as follows.

(91)   THE $\equiv \lambda P_{\langle \tau, t \rangle} \lambda x_{\tau} [\partial(|P| \leq 1) \wedge P(x)]$

Here, τ is a placeholder for a type that can be instantiated either as e or as d, and the ∂-symbol represents Beaver and Krahmer's (2001) presupposition operator, understood so that $\partial(\phi)$ has the truth value 'undefined' if ϕ is not true. The notation $|P| \leq 1$ is shorthand for 'the number of satisfiers of P is no greater than one'. So the input is a predicate P, and the output is the same predicate P, defined so long as it uniquely characterizes some entity.

Suppose that the common noun *kamera* 'camera' denotes a type $\langle e, t \rangle$ function called CAMERA. Then the definite noun phrase *kamera-n* 'the camera' will denote the result of applying THE to CAMERA, which works out to be the property of being a camera, defined if there is presupposed to be at most one camera:

(92)   THE(CAMERA)
        $\equiv \lambda x [\partial(|\text{CAMERA}| \leq 1) \wedge \text{CAMERA}(x)]$

At this point, we still have an expression of type $\langle e, t \rangle$, and in order to be integrated into the sentence as an argument, it ought to be either type e (and hence denote an individual) or type $\langle \langle e, t \rangle, e \rangle$ (a quantifier). This can be achieved through one of the following type-shifting operations (Partee 1986; Coppock and Beaver 2015):

- IOTA: converts a predicate to the unique satisfier of that predicate
  $P \mapsto \iota x[P(x)]$
- EX: converts a predicate to an existential quantifier
  $P \mapsto \lambda Q . \exists x[P(x) \wedge Q(x)]$

Following Coppock and Beaver (2015), we assume the principle of Type Simplicity, which dictates that a hearer should apply a type-shift resulting in simpler types if it is consistent with his or her independent knowledge about the common ground. (The idea of a preference for simpler types originates in Partee and Rooth's (1983) classic paper on type-shifting; Coppock and Beaver's (2015) contribution is merely to specify more precisely the circumstances under which the simpler-type variant should be chosen.) So in particular, faced with a choice between IOTA and EX, a hearer should choose IOTA if possible, since it results in type e, rather than a quantifier. This will have the effect that definite descriptions typically receive an analysis of the sort advocated by Frege (1892), picking out the unique satisfier of the description. So *kamera-n* 'the camera' ends up as:

(93) *kamera-n* 'camera-DEF'
      IOTA(THE(CAMERA))
      $\equiv \iota x . \text{CAMERA}(x)$

(The uniqueness presupposition of THE is implied by the ι-expression so it doesn't need to be represented.)

An EX shift occurs only under special circumstances with definites, and is the only option for indefinites. The reasoning behind the latter relies indirectly on the principle of Maximize Presupposition (Heim 1991; Schlenker 2011; Percus 2006; Coppock and Beaver 2015), which requires that the presuppositionally stronger variant appears whenever its presuppositions are satisfied. Since an indefinite lacks definiteness-marking, and definiteness-marking presupposes uniqueness, uniqueness must not be satisfied in the common ground if the nominal is indefinite. In order for an IOTA shift to apply, both existence and uniqueness must be satisfied in the common ground. Since this is not the case for an indefinite, IOTA cannot apply, but EX can.

5.1.2 Article

Given that not only the suffix but also the definite article occurs in examples like (90) ('Milk is not the only source of calcium'), parallel considerations apply: the definite article signals a uniqueness presupposition, but not one of existence.

Notice that since the result of applying the suffix to a nominal description is itself a predicate, the article can apply straightforwardly to a nominal description containing a suffix (whereas this would not be possible if the suffix denoted IOTA, as under the standard Fregean view of definiteness-marking implemented in Heim and Kratzer's (1998) textbook).

Since the definite article only occurs when there is a modifier, let us consider an ordinary definite noun phrase containing a modifier like *den perfekta kameran* 'the perfect camera'. This will correspond to the following logical formula:[31]

---

[31]This in turn is an oversimplification, supressing complications related to the vagueness of *perfect*. Although *perfect* does not behave as an intersective adjective (e.g. a perfect camera may be an imperfect gift),

(94)   *den perfekta kamera-n* 'the perfect camera-DEF'
       IOTA(THE(PERFECT ∩ CAMERA))

(We use PERFECT ∩ CAMERA as an abbreviation for $\lambda x[\text{PERFECT}(x) \wedge \text{CAMERA}(x)]$.)

5.1.3 Superlatives

Now let us discuss the semantics of superlatives, both ordinary and elative. The idea behind our analysis is as follows. In general, a superlative morpheme takes two arguments, a comparison class and a comparison relation, and yields a predicate that holds of some entity if it is greatest in the given comparison class with respect to the given comparison relation. In the case of an ordinary superlative, say, *strongest*, the comparison relation is the 'stronger-than' relation. In the case of an elative superlative, the comparison class is a set of degrees, and the comparison relation is the greater-than relation.

In the elative case, the resulting predicate is one that holds of the highest degree (within the given comparison class of degrees). It is with this predicate of degrees that the definite article combines, and the result is reference to the highest relevant degree. This degree fills in the argument slot of the degree relation denoted by a gradable predicate like *strong*, so that *strongest*, for example, means 'strong to the greatest degree'. This analysis allows a unified treatment of the superlative morpheme, general enough to account for its interpretive flexibility.[32]
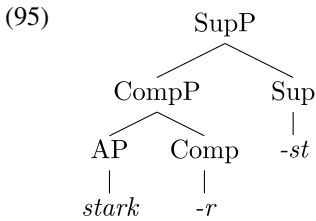
In order to make this work, we take advantage of Bobaljik's (2012) Containment Hypothesis, according to which superlatives can be broken up into a comparative part (which we write as *-r*), and a superlative part (which we take to be *-st*).[33] Bobaljik assumes that the basic structure of *starkast* 'strongest' is as follows, where SupP stands for 'Superlative Phrase' and CompP stands for 'Comparative Phrase':[34]

---

the fact that *perfect* can be used predicatively, and the fact that the modified noun does not always provide the dimension of perfection (Siegel 1976), suggest that vague adjectives like *perfect* are parameterized by context rather than taking the noun they modify as an argument directly; see Coppock 2009, ch. 5 for discussion. In that case, an intersectional analysis is viable. But these issues are orthogonal to our purposes here.

[32]A different approach to the Italian intensifier *-issimo* is taken by Beltrama (2014), and extended to Washo by Beltrama and Bochnak (2015). This approach involves quantification over contexts; for example, someone who is *bellissimo* 'beautiful-issimo' is beautiful in every context. See Bylinina and Sudo (2015) for critical commentary on the latter paper. We do not undertake a systematic comparison between these approaches here.

[33]The *-r(e)* part of the comparative does not surface in the superlative in English or Swedish, but in Cimbrian German, the *-r* of the comparative is also found in the superlative; a comparative of the form X-ar corresponds to a superlative of the form X-ar-ste (Bobaljik 2012, p. 72). Bobaljik (2012) provides extensive further cross-linguistic evidence for this hypothesis using morphological suppletion patterns, showing that arguably without exception, if the comparative form is suppletive, then the superlative form is as well. This is supported by Swedish triples like *bra-bättre-bäst* 'good-better-best', where the comparative and superlative forms have a different root than the positive form, and more indirectly, *stor-större-störst* 'big-bigger-biggest' and *tung-tyngre-tyngst* 'heavy-heavier-heaviest' (Teleman et al. 1999, Vol. 2, 198ff.), where umlaut in the stem is found both in the comparative and the superlative form.

[34]A structure like this forms the input to a linearization process that applies rules of exponence to produce the surface form; see Bobaljik (2012) for details.

(95)

```
                SupP
              /      \
          CompP      Sup
          /    \       |
        AP    Comp    -st
        |       |
      stark     -r
```

By separating the comparative part from the superlative part in a superlative, we have the possibility to obtain two different bracketings at the semantic level (one where Comp+AP forms a unit, and one where Sup+Comp forms a unit), and these will correspond respectively to the elative and ordinary interpretations of the superlative.

In order to give an analysis of the superlative morpheme *-st* that is consistent with both an elative and an ordinary interpretation, we assign *-st* a rather minimal semantics. Building on Bobaljik's (2012) idea that *-st* means 'than anyone else', and Szabolcsi's (2012) implementation of that idea, we assume that the semantic contribution of *-st* depends on just two things:

1. a comparison class **C**, given by context (normally a set of individuals, but it can be a set of degrees; the latter occurs in the case of elative superlatives)[35]
2. a comparison relation R, which provides a way of comparing the members of **C** (e.g. 'x is taller than y', or, crucially, 'd_1 is a greater degree than d_2')

The superlative morpheme characterizes a member x of **C** that is greater according to R than all other members of **C**. More formally, we assume that the superlative morpheme denotes a function called SUP, defined as follows:

(96) *-st* (superlative morpheme)
$$\text{SUP} \equiv \lambda R_{\langle \tau, \langle \tau, t \rangle \rangle} \lambda x [\partial(\mathbf{C}(x)) \land \forall y [[\mathbf{C}(y) \land x \neq y] \rightarrow R(x, y)]]$$

We use τ as a placeholder for a type, which can be instantiated as either e or d, and we use $R(x, y)$ as an abbreviation for $R(y)(x)$. (Let us assume that $R(x, y)$ means that x is greater than y on the relevant dimension.) Recall that the ∂-symbol represents Beaver and Krahmer's (2001) presupposition operator, understood so that $\partial(\phi)$ has the truth value 'undefined' if ϕ is not true. In this case, it is used to implement the presupposition that x is in **C**. So (96) says, "Given a comparison class **C** and a comparison relation R, the superlative morpheme characterizes an individual or degree x that is greatest among the elements in **C** according to R."

Following Heim (2006), we assume that the basic meaning of the comparative suffix *-r* is simply a greater-than relation between two degrees. We call this function COMP.

(97) Comparative *-r* (basic interpretation)
$$\text{COMP} \equiv \lambda d \lambda d' [d' > d]$$

This basic meaning will serve as input to the superlative in the case of the elative interpretation. In the case of an ordinary interpretation for the superlative, we assume that the comparative morpheme forms a unit with a gradable predicate such as *strong*,

---

[35]Bold signals that the comparison class is expected to be given by context.

and the complex (*strong+er*) denotes a relation that holds between two individuals. Such a meaning seems to be what is needed for so-called "phrasal comparatives" as in *John is stronger than Bill*, as opposed to "clausal comparatives" as in *John is stronger than I thought* (Schwarzschild 2008, i.a.). This meaning cannot be derived straightforwardly through functional application, since the comparative morpheme is of type $\langle d, dt \rangle$ and a gradable adjective like *strong* denotes a degree relation of type $\langle d, et \rangle$. It is therefore useful to assume that the basic comparative meaning in (97) may be mapped to a 'phrasal' meaning through the following type-shifting operation:

(98) Type-shifting operation: LINK
$$R_{\langle d,dt \rangle} \mapsto \lambda G_{\langle d,et \rangle} \lambda x \lambda y [R(\max d[G(x, d)], \max d[G(y, d)])]$$

The result of applying LINK to the basic meaning of the comparative morpheme is a 'phrasal' meaning, which expects as input a degree relation of type $\langle d, et \rangle$, and produces as output a relation between two entities that holds if one has the relevant quality to a greater degree than the other.[36] Let us refer to this function as COMP* for short.

(99) Comparative *-r* (phrasal interpretation)
LINK(COMP)
$$\equiv \text{COMP*} \equiv \lambda G_{\langle d,et \rangle} \lambda x \lambda y [\max d[G(x, d)] > \max d[G(y, d)]]$$

An ordinary superlative like *starkaste* 'strongest' is hypothesized to have the following interpretation, where the gradable predicate ('strong'), combined with the shifted comparative, is fed as an argument to the superlative.

(100) *starkaste* 'strongest' (ordinary interpretation)
SUP(COMP*(STRONG))
$$\equiv \lambda x [\partial(\mathbf{C}(x)) \wedge \forall y [[\mathbf{C}(y) \wedge x \neq y]$$
$$\rightarrow \max d[\text{STRONG}(x, d)] > \max d[\text{STRONG}(y, d)]]]$$

Now let us embed this in a larger expression. The ordinary superlative occurs with the definite suffix, as in e.g. *det starkaste teleskop-et* 'the strongest telescope-DEF'. For such a case, we will have the following analysis, assuming that *starkaste* 'strongest' combines intersectively with *teleskop* 'telescope':

(101) *det starkaste teleskop-et* 'the strongest telescope-DEF'
THE(SUP(COMP*(STRONG)) ∩ TELESCOPE)

Note that it is crucial in order to get the right meaning that the definiteness-marking applies to the combination of the superlative adjective with the noun, even though morphologically, the suffix forms a unit with the noun. In this respect, it looks like a phrasal affix (cf. Zwicky 1987; Miller 1992). Note further that the predicate that THE combines with, 'strongest telescope', uniquely characterizes some entity (that telescope which is stronger than all others in the context), and therefore the uniqueness presupposition of the definite suffix is met. Then, as long as the existence of some

---

[36]Another more complex meaning for the comparative is a "quantificational" meaning of type $\langle dt, \langle dt, t \rangle \rangle$, namely $\lambda S_{dt} \lambda T_{dt} . \max(T) > \max(S)$. This meaning has been used to explain scope ambiguities in comparatives, as well as some of the properties of modified numerals (Heim 2000; Kennedy 2014).

individual meeting the resulting description is also presupposed, the IOTA shift can apply at the top level.

With an elative superlative, we propose that the comparison relation that gets fed into the superlative is the basic comparison relation between degrees, the bare denotation of *-er*. The superlative morpheme combines directly with the comparative morpheme in this case.

(102) *-er+-est*
SUP(COMP)
$\equiv \lambda d[\partial(\mathbf{C}(d)) \wedge \forall d'[[\mathbf{C}(d') \wedge d \neq d'] \rightarrow d > d']]$

This is a description of type $\langle d, t \rangle$ that characterizes the unique maximal degree in $\mathbf{C}$.

In quasi-definites, we propose that the definite article combines with this property. More specifically, THE combines with SUP(COMP) to produce a unique property of degrees. This property of degrees may undergo the IOTA shift to yield a degree: *the* degree that is greater than all other (relevant) degrees. Let us use the abbreviation MAX($\mathbf{C}$) as a way of referring to the top degree in $\mathbf{C}$:

(103) MAX($\mathbf{C}$) $\equiv \iota d[\forall d'[[d \in \mathbf{C} \wedge d' \neq d] \rightarrow d > d']]$

Then we can represent the compositional semantics of an elative superlative as follows:

(104) $\lambda x \,.\, \text{STRONG}(x, \text{IOTA}(\text{THE}(\text{SUP}(\text{COMP}))))$
$\equiv \lambda x \,.\, \text{STRONG}(x, \text{MAX}(\mathbf{C}))$

This property combines intersectively with the property denoted by the modified noun. So *det starkaste teleskop* means 'a telescope that is strong to the greatest degree' under this analysis. This seems to capture the semantic content appropriately.[37]

Some words are in order regarding how the set of relevant degrees might be constrained by context. If it is assumed, in line with Cresswell (1977), that there are different sorts of degrees (degrees of length, volume, beauty, etc.), and only those which are of the same sort are commensurable, then the comparison class of degrees might constrain the sort of degree that is in question.[38] Another role that the comparison class may play is in constraining the *grain* at which comparison is implied. This would help in making sense of statements like the following:

(105) I förra veckan såg jag *den sötaste lilla valp* i ett skyltfönster i Kungsbacka och sen såg jag *en ännu sötare liten valp* i en affär på Backaplan.
'Last week I saw *the cutest little puppy* in a storefront window in Kungsbacka and then I saw *an even cuter puppy* in a store at Backaplan.'

---

[37]Note that the ι-expression characterizing the unique highest degree is what Rullmann's (1995) MAX operator would produce, given a set of degrees as input. In the case of elative superlatives, the maximization is effected by a combination of the superlative and the comparative morphemes rather than one single operation.

[38]For Cresswell, degrees are conceived of as ordered pairs whose first element is what might be called a 'point' and whose second element is a scale. Only degrees sharing a scale are commensurable. Under this view, the comparison class may be taken to constrain the set of relevant degrees according to their scale element.

What is meant by the first clause is not literally that there could never be any cuter puppy, but that we are discussing cuteness at a certain level of grain, and at a coarse-grained level, the puppy was at the topmost degree of cuteness. This idea could be captured formally with *granularity functions*, which induce partitions at various grains on a degree scale (Sauerland and Stateva 2007; Gyarmathy 2012) but we will not go further in formalizing it.

Now, the type of the whole expression is a predicate of individuals, type $\langle e, t \rangle$, and this is not a good type for an argument. In principle, this can be solved either with the IOTA shift or with the EX shift. The IOTA shift is available only if existence and uniqueness are presupposed. As we have argued, elative descriptions are not inherently unique, unlike ordinary superlative descriptions, so uniqueness need not be satisfied in the common ground. Whenever uniqueness is not satisfied in the common ground, the suffix is not licensed, and the IOTA shift cannot apply because it requires existence and uniqueness to be in the common ground. So in that case, the existential type-shift is the only one that is expected to be available. The existential type-shift EX will convert for example 'telescope that is strong to the greatest degree' to, effectively, 'some telescope that is strong to the greatest degree':

(106) *det starkaste teleskop*
       $\text{EX}(\lambda x \,.\, \text{STRONG}(x, \text{IOTA}(\text{THE}(\text{SUP}(\text{COMP})))))$
       $\equiv \lambda Q[\exists x[\text{STRONG}(x, \text{MAX}(\mathbf{C})) \wedge \text{TELESCOPE}(x) \wedge Q(x)]]$
       'a maximally strong telescope'

Assuming that this type-shifting operation applies, *det starkaste teleskop* does not pick out any particular telescope and has an indefinite interpretation.

Note that although elative descriptions are not *inherently* unique, they could in principle be so; it could be in the common ground, for example, there is exactly one maximally strong telescope. Under such a circumstance, where uniqueness of the elative description is in fact presupposed, our theory predicts that a suffix should be combinable with an elative reading of the superlative. This is consistent with the data that we have considered; we showed above that an ordinary interpretation of the superlative is incompatible with the bare form, but we did not show that an elative interpretation is incompatible with the suffix. However, in a situation where it is common ground that there is at most one satisfier of the description, it would be difficult to know that we are in fact dealing with an elative rather than an ordinary interpretation of the superlative, so we have not be able to resolve whether this prediction is borne out.

Let us consider how the existential type-shift would work out in a full sentence like *Stjärnan kan inte iakttas med det starkaste teleskop* 'The star can't be seen with the strongest telescope' (cf. (19a)). In addition to the existential quantifier for the telescope, we must consider the scope of the possibility modal and negation, as well as the implicit subject of the passive verb *iakttas* 'be seen'. For reasons discussed in Sect. 4, there is no interpretation with the existential quantifier for the telescope taking wider scope over negation (e.g. 'There is a telescope of maximum strength such that the star cannot be seen with it'), but the following scoping is available (treating *kan* 'can' with $\Diamond$):

(107) $\neg \Diamond [\exists x \exists y [\text{STRONG}(x, \text{MAX}(\mathbf{C})) \wedge \text{TELESCOPE}(x) \wedge \text{SEE}(y, \text{S}, x)]]$

where $\text{SEE}(y, \text{S}, x)$ stands for 'y sees S with x'. Crucially, the sentence is correctly predicted to imply that the star cannot be seen with *any* telescope of maximum strength, not that there is a particular most salient telescope of maximum strength with which the star cannot be seen. In this way, this analysis correctly captures the truth conditions and the semantic indefiniteness of quasi-definites, and yet a unified analysis of the definite article has been maintained.

5.2 Syntax

Now let us turn to the syntax of quasi-definites. Much has been written about the syntax of noun phrases in double-definiteness varieties of Scandinavian.[39] One respect in which analyses differ is with respect to whether the determiner and the suffix are taken to occupy different projections. Julien (2005), for example, argues that the suffix heads an nP projection, above NP and below DP, while the determiner occupies D. This assumption turns out to be convenient for the purposes of doing compositional semantics in a Montagovian framework where we map from natural language syntactic structures to logical representations, because then the suffix naturally takes scope over the noun as well as its modifiers. We adopt it for this reason. An ordinary definite noun phrase then looks as follows.[40]

(108)

---
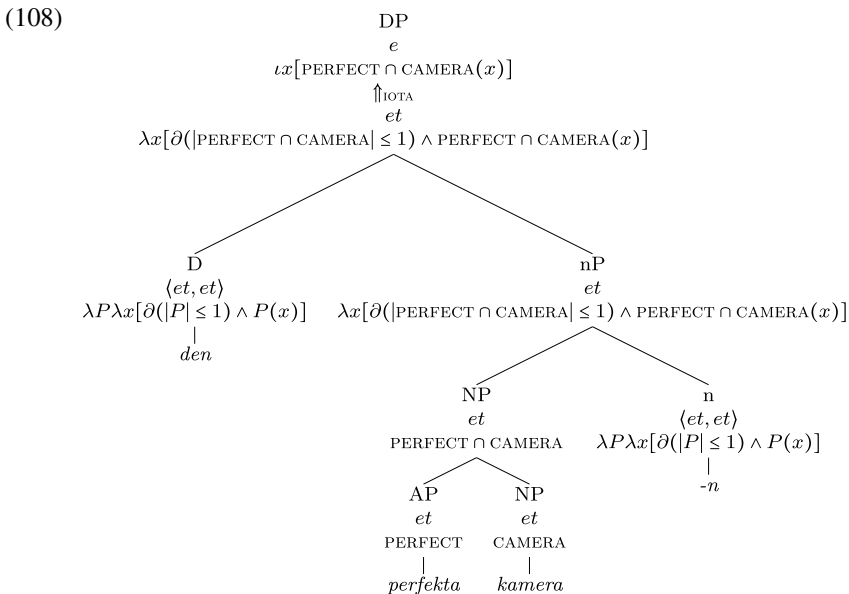
[39]Here is a selection: Hoeksema 1985, Cooper 1986, Hellan 1986, Holmberg 1987, Delsing 1988, Sadock 1991, Taraldsen 1991, Kester 1993, Delsing 1993, Santelmann 1993, Svenonius 1993, 1994, Payne and Börjars 1994, Börjars 1995, 1998, Vangsnes 1999, Börjars and Donohue 2000, Neville 2000, Embick and Noyer 2001, Hankamer and Mikkelsen 2002, 2005, Julien 2005, Heck et al. 2008, Gelderen and Lohndal 2008, Leu 2008, Roehrs 2009, Schoorlemmer 2009, Katzir 2011, Stroh-Wollin 2011, Alexiadou 2014.

[40]For simplicity, we assume that the AP adjoins to NP rather than being located in the specifier of an αP projection. α-heads according to Julien (2005) are functional projections which host adjectival phrases in their specifiers, in the style of Cinque (2010). Also, we do not include an AgrP projection above AP; rather we assume that agreement features are added to already existing heads, as Julien (2002) argues.

Notice that, because of the position of nP, the uniqueness requirement contributed by the suffix pertains to the adjective+noun description 'perfect camera', not just 'camera', and this is a welcome result.[41]

The definite suffix is required, according to Julien, because it has features that have to be spelled out, including definiteness. But there are definite noun phrases that lack the suffix, including ones with prenominal possessors (e.g. *min ny-a bok* 'my new-W book') and ones with certain demonstrative determiners (e.g. *denna ny-a bok* 'this new-W book'). These cases not only behave semantically like definites, but also exhibit definiteness concord; any adjectival modifier that occurs in such phrases is in the weak form (e.g. *ny-a* 'new-W'). For the possessive case, Julien (2005, pp. 201–202) says the following: "My proposal is that in those varieties of Scandinavian where possessive pronouns obligatorily move to prenominal position, the POSS feature in n is strong, so that it attracts the pronominal possessor to Spec-nP. With a possessor in Spec-nP, there is no need to spell out the n head, since all the features that could be spelled out in n are shared by the possessor, which will eventually become visible. Consequently, there is no suffixed article on the noun when the possessive pronoun moves to Spec-nP." So in other words, a [DEF+] feature in n must be spelled out, either by the suffix or by something in Spec-nP. Quasi-definites pose a puzzle for this view: If n is [DEF+] in a quasi-definite, then a suffix should emerge, because there is no other element available to realize its features. But if n is not [DEF+], then what licenses the determiner, and why do prenominal adjectives appear in the weak form?

Julien (2005, p. 41) writes that this construction involves definiteness that is "confined to the adjective phrase". One way of making this precise is to suppose that the definite article is not really in D, but somewhere inside the adjectival projection, as Krasikova (2012) argues for relative readings of ordinary superlatives. Indeed, our semantic analysis implies an unusual bracketing, where the definite article does not form a unit with the noun. If the definite article were not really in D, then it should be possible for some other element to occupy D, and there is in fact some evidence for this. There is a slightly archaic construction that Teleman et al. (1999, Volume III, p. 59f.) call a *complex indefinite noun phrase*, in which an indefinite article co-occurs with a quasi-definite.[42] Here are some attested examples; (109) and (110) are from 19th century novels whereas (111) is from *Göteborgs-Posten* 2001.

(109) Är icke detta skuldebrev   *ett det vackraste   bevis   på ärlighet*?
       is not this promissory note a the beautiful-est display of honesty
       'Isn't this promissory note *a most beautiful display of honesty*?'

(110) Hennes tänder lyste mellan läpparna i *ett det ljuvaste leende*.
       'Her teeth shone beneath her lips in *a most lovely smile*.'

(111) Hela rummet flyter i *en den ljusaste värme*.
       'The whole room moves in a most bright warmth.'

---

[41]Here, again, we have glossed over the context-sensitivity of *perfect*; see fn. 31.

[42]Complex indefinite noun phrases are also mentioned in Volume II, p. 206f. as part of modern Swedish, with the example *(en) den (allra) vackraste utsikt* 'an incredibly beautiful view', and in Volume III, p. 80, in connection with absolute superlatives.

According to Teleman et al. (1999), the only case in which an indefinite article co-occurs with a definite article is of this form, involving an elative superlative.[43] This can be taken as evidence in support of the idea that the definite article in a quasi-definite is located somewhere within the adjectival projection.

However, the complex indefinite noun phrase construction is quite unusual and not accepted by younger speakers, who nevertheless use quasi-definites productively. Furthermore, it is not possible to combine a quasi-definite with any other indefinite article. In English, an elative superlative can be combined with *several*, as we saw above with example (17). That example cannot be translated into Swedish with a quasi-definite:

(112)   a.   Mrs. Wheatley has several *most delightful specimens* of her improved ability.
        b.   *Mrs. Wheatley har flera *de härligaste exempel* på sin förbättrade förmåga.

A further complication comes from coordination. If the determiner in a quasi-definite were located within the adjectival projection, forming a syntactic unit with the superlative adjective, then it should be possible to coordinate the adjectival modifier containing the determiner and the superlative with another adjective, as in (113), but this is not possible.[44]

(113)   *med ett [enormt   och det starkaste] teleskop
         with an enormous and the strongest telescope

So the weight of the evidence thus supports the conclusion that the determiner really is in D in modern Swedish.[45] The question then becomes what allows the definiteness-marking to function at the level of degrees, if it is in D. The strategy we explore here builds on the assumption that the determiner is a realization of a definiteness concord feature, one which also triggers the weak form of adjectives. As concord features are present on the adjectival projection, they are in a position to have "access" as it were to the semantic ingredients of the superlative adjective.

We propose that the suffix represents *phrase-level definiteness* (thus, definiteness of the DP as a whole, interpreted at nP), while the determiner and the weak inflection on the adjective represent *definiteness concord*. Phrase-level definiteness corresponds to semantic/pragmatic uniqueness of the description contributed by the whole

---

[43]Teleman et al. (1999, Volume III, p. 59) also mention cases where the indefinite article is followed by a possessive phrase, as in *en de djupa skogarnas djärve son* 'a bold son of the deep forests'.

[44]With English *a most*, it sounds a bit better; compare ... *with an enormous and most powerful telescope*. Here, *most powerful* has the same meaning as *det starkaste* under the assumption that the latter is a syntactic unit. So if (113) is ungrammatical, it is not likely to be for reasons of semantic or pragmatic anomaly.

[45]The same reasoning applies to Krasikova's (2012) analysis of superlatives on relative readings, with the following structure: [np [ap [degp the max C] highest] mountain] where "the definite article restricted by a maximalised contextual degree property C fills the degree argument slot of *highest*, whose morphology is ... not interpreted but rather indicates the presence of the maximality operator" and "The entire DP is realised as definite due to the definiteness of the DegP". The predicted kind of coordination is not possible: *John climbed the highest and famous mountain*.
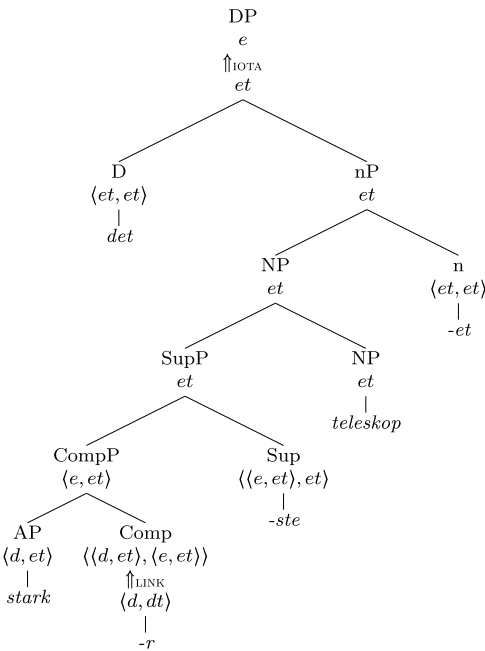
DP: A DP is definite at the phrase level if and only if the description contributed by the DP is uniquely characterizing (relative to context). It is a fact about Swedish that if a DP is definite at the phrase level, then this must be marked by a suffix, a possessive pronoun, or a suitable demonstrative pronoun—and one of these suffices. In this respect, phrase-level definiteness is like a "phrasal feature" under Hankamer and Mikkelsen's (2002) analysis, i.e., a feature that only needs a single exponent. Definiteness concord behaves like an "agreement feature", a feature which is typically realized multiple times.[46] The determiner and weak forms of adjectives, on the other hand, reflect definiteness concord, and this sort of definiteness must be repeated on all elements of the DP that display concord. We assume further that *a definiteness concord feature must be interpreted once per DP*. This normally happens at the DP-level, so that a DP that exhibits definiteness concord also has phrase-level definiteness. But if the definiteness concord feature can be interpreted somewhere else, then it is possible to have definiteness concord without phrase-level definiteness. An elative superlative phrase provides an opportunity for the definiteness concord feature to be interpreted below the DP level.

To show how this works, let us first consider ordinary superlatives. If we combine Bobaljik's Containment Hypothesis with the assumptions we made above, we have the analysis in (114) for a definite noun phrase containing an ordinary superlative. The comparative morpheme undergoes the shift we have called LINK to yield a 'phrasal' meaning, and this combines with the gradable predicate *stark* 'strong' to yield a relation between two individuals (the 'stronger than' relation). This is the input to the superlative morpheme, which is expecting a comparison relation, and the output is a predicate of individuals. (Here we have omitted reference to the comparison class argument of the superlative, which comes from context.) This meaning ('stronger than all relevant others') combines intersectively with the common noun *teleskop* 'telescope'.[47] Then, since the description is unique, the presupposition of the definite suffix is satisfied, so it can apply. The definite suffix denotes an identity function, so the output is the same as the input. The definite determiner is applied to the output, checking again for uniqueness, and the result is the same predicate. This predicate undergoes the IOTA shift, assuming that existence is satisfied in the context, and the result is that the expression refers to the telescope that is stronger than all other telescopes.

---

[46]This distinction can be thought of in terms of Wechsler and Zlatić's (2003) distinction between INDEX features and CONCORD features. The former are thought to be borne by pronouns and govern verbal agreement, while the latter determine agreement between determiners, adjectives and nouns within a noun phrase. Phrase-level definiteness would be an INDEX feature while definiteness concord would be a CONCORD feature.
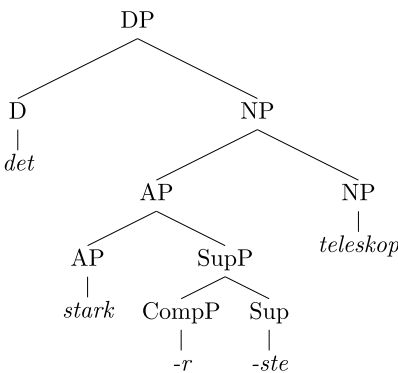
[47]Using a theory on which *-est* does not decompose into a comparative part and a superlative part, Heim (1999) argues that *-est* in *tallest man* combines with *tall man* rather than just *tall*. This has the welcome consequence that predicating *tallest man* of someone does not imply anything about the heights of non-men. Under the set-up we have given, where *-est* is not a unit and therefore cannot move, we must assume, in order to get the same result, that the modified noun restricts the comparison class, as Siegel (1976) argues for e.g. *good violinist*. An alternative strategy is to let *-st* take the modified noun as an argument which conventionally constrains the comparison class. This issue should be explored further but as it is somewhat orthogonal to our concerns here, we will use a simpler lexical entry.

(114)

```
                          DP
                          e
                         ⇑IOTA
                          et
                   ┌──────┴──────┐
                   D             nP
                ⟨et, et⟩          et
                   │          ┌───┴───┐
                  det         NP       n
                              et    ⟨et, et⟩
                         ┌────┴────┐    │
                       SupP       NP   -et
                        et        et
                   ┌────┴────┐     │
                 CompP      Sup  teleskop
                ⟨e, et⟩  ⟨⟨e, et⟩, et⟩
              ┌───┴───┐      │
             AP      Comp   -ste
           ⟨d, et⟩  ⟨⟨d, et⟩, ⟨e, et⟩⟩
             │        ⇑LINK
           stark     ⟨d, dt⟩
                        │
                       -r
```

Now let us turn to quasi-definites. In our semantic analysis of elative superlatives, we have assumed that the superlative meaning takes as an argument the comparative meaning. Let us assume that this is reflected in the syntax, so in the case of an elative superlative, Comp is intransitive, not taking AP as an argument, yielding the structure [Sup[Comp]]. We assume that this structure adjoins to AP. We will also suppress the nP projection when there is no suffix, for ease of readability. This gives the following syntax for a quasi-definite:

(115)

```
               DP
          ┌─────┴─────┐
          D           NP
          │      ┌─────┴─────┐
         det     AP          NP
             ┌────┴────┐      │
            AP       SupP  teleskop
            │      ┌───┴───┐
          stark  CompP    Sup
                   │       │
                  -r     -ste
```

This tree does not display the agreement features, however, which are crucial. They determine not only the choice of determiner (*det* vs. *den*), but also play a role in the interpretation. Scandinavian noun phrases show concord for number, gender, and definiteness, so the following feature bundle is shared by all nodes that participate in nominal concord, including the determiner, the adjective phrase, and the noun
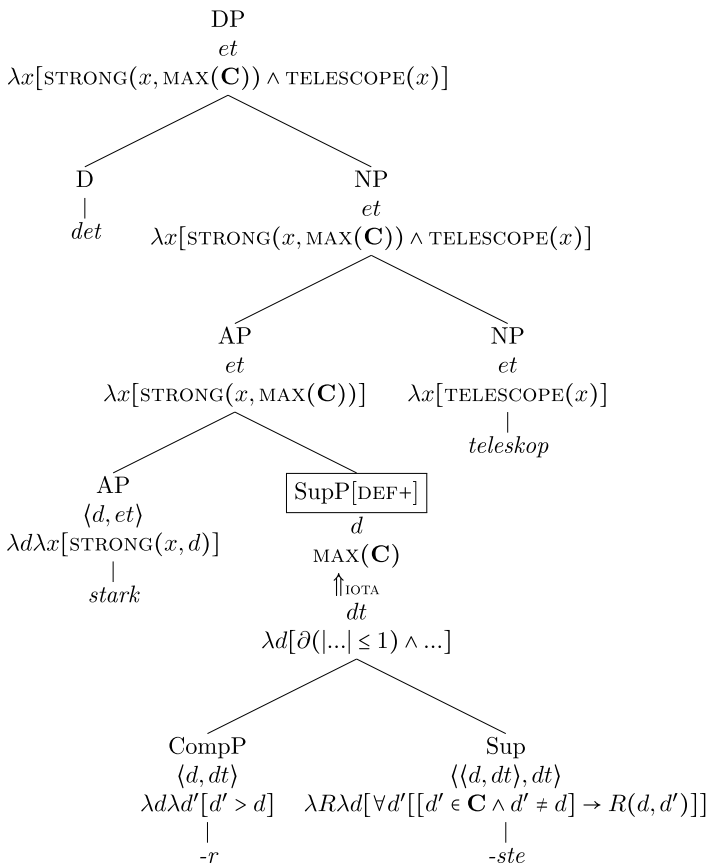
phrase:[48]

$$\begin{bmatrix} \text{GEND} & \text{NEU} \\ \text{NUM} & \text{SG} \\ \text{DEF} & + \end{bmatrix}$$

It may worry the reader that the bare noun should bear [DEF+], but there are other definite noun phrases in which this occurs involving possessives and certain demonstratives, as mentioned above.

Now, suppose that the determiner *det* does not really have any semantics of its own, and it is the [DEF+] feature that carries the semantics. The [DEF+] feature can be interpreted anywhere it appears, as long as the result is semantically sensible, but only once. Then one option is to interpret the [DEF+] feature at the SupP level. This gives us the following compositional analysis.

(116)

On this analysis, the definiteness is "confined to the adjectival phrase" (Julien 2005) in the sense that it is interpreted within the adjectival phrase.

---

[48] We assume following Wechsler and Zlatić (2003) that the features participating in nominal concord are gender, number, and definiteness (so they do not include person, unlike 'index' agreement).

What about other loci of interpretation? The only nodes where the [DEF+] feature can be interpreted are ones of type *et* or *dt*, because THE requires an input of one of those types. The head noun is of type *et*, but if the definiteness feature were interpreted there, then the speaker would be presupposing that there is no more than one telescope. This would imply that the whole nominal description is unique. In such a case, the suffix would have to be inserted. Unlike the determiner, the suffix is not a content-less reflection of the definiteness concord feature; it signals uniqueness at the level of the whole phrase. This means that, given a case like the one we have been considering where there is no suffix but there is a superlative, the SupP node of an elative interpretation is the only place where the definiteness feature can be interpreted. If the noun phrase had an ordinary non-superlative intersective modifier, then interpreting the definiteness feature there would again imply that the description as a whole was unique, so a suffix would have to be present. A non-intersective modifier would not be of the right type. So elative superlatives are special: Because they introduce a predicate (of type *dt*) that does not combine intersectively with the noun, they allow the definiteness feature to be interpreted without implying uniqueness at the nP level, hence in the absence of a definite suffix.

This is of course only one of many syntactic analyses that would be compatible with the evidence we have laid out. What is crucial for us is that quasi-definites indicate definiteness at the level of degrees. In the next section, we address alternative hypotheses.

6 Alternative analyses

As we have indicated, the analysis that we advocate is one on which the article signals definiteness at the level of degrees. Let us now consider the alternative analyses mentioned in the introduction.

6.1 The expletive analysis

Given that quasi-definites are semantically indefinite, one might reasonably wonder whether the definite article in quasi-definites is just an automatic reflex of the presence of the superlative. A version of this idea is that the article represents "a special kind of definiteness triggered by the superlative", which "may be due to the inclusiveness that the superlative itself suggests", as Julien (2005, p. 41) writes with reference to Roberts (2003) for the claim that superlatives are inherently unique (hence *Last weekend we climbed the/*a biggest mountain in West Virgina*). What Teleman et al. (1999, Volume II, p. 204f., Volume III, p. 81) call 'classifying' uses of superlatives in Swedish make it difficult to maintain this kind of view. As discussed by both Teleman et al. (1999) and Julien (2005), superlative adjectives can be preceded by *ingen/-et* 'no' and, in certain cases, the indefinite article *en/ett*:

(117) Det finns *inget bästa svar*.
       'There is *no best answer*.'

(118) *en minsta avgift* på 200 kr
       '*a minimum fee* of 200 kr'

The pattern in (118) is also attested in Swedish newspaper text with *högsta* 'highest', *lägsta* 'lowest', *översta* 'topmost', *yttersta* 'outermost', *innersta* 'innermost', and *bästa* 'best'.[49] The possibility of such examples shows that we cannot assume that there is a purely formal morphosyntactic requirement for a definite article preceding a superlative adjective in Swedish.

Admittedly, these cases raise questions for the analysis we have given here, according to which ordinary superlatives are always unique, and therefore should be marked as definite. A similar problem arises with the kinds of superlatives discussed by Herdan and Sharvit (2006) such as *Every class has a best student*, as well as indefinite descriptions containing exclusive *only* as in *the only child*. See Coppock and Beaver (2015) for extensive discussion of the latter case; we believe that a similar solution should work for these kinds of 'classifying' uses. The important point in the present context is that these kinds of examples clearly falsify a theory on which the determiner is a blind syntactic reflex of the superlative morphology, whereas they can in principle be accommodated under a semantic approach.

6.2 Aspects-of-definiteness analysis

Recall that Julien (2005) says that there are two 'aspects of definiteness', namely specificity and 'inclusiveness'. The term 'inclusiveness' comes from Lyons (1999, 11), and is meant to describe a property that is more general than uniqueness that applies appropriately to plurals and mass terms as well as singulars (cf. 'maximality'); it boils down to uniqueness in singular cases. She writes, "the two aspects of definiteness reside in different heads, such that *n* [hosting the suffix] encodes specificity while D [hosting the article] encodes inclusiveness [≈ uniqueness]" (p. 38). Alexiadou (2014) adopts this idea as well.

In foregoing sections, we have given evidence against both of these claims. In Sect. 3 we argued that quasi-definites are not unique, so the definite article does not encode uniqueness. And we argued in Sect. 5.1.1, the suffix does not encode specificity. So, while the two definiteness markers indeed seem to function at different *levels* (degree vs. individual), there is no evidence that they encode different *aspects* of definiteness.

6.3 The kind analysis

In Sect. 3 we established that quasi-definites behave semantically more like indefinites than like definites, but are not entirely like ordinary indefinites. The same is

---

[49]It is interesting that the superlative adjective in (118) is in the 'weak' form (*minsta*) rather than the strong form (*minst*). As mentioned in fn. 1, the weak form of an adjective is normally used for definites and plurals, while the strong form is normally used for singular indefinites. Superlatives occur in the strong form in predicate position (e.g. *Hon är minst* 'She is smallest') but we do not know of any examples of attributive superlatives in the weak form. (This has not always been the case, however; see Stroh-Wollin and Simke (2014) for a recent discussion of how the weak/strong distinction evolved historically in Swedish.)

true of so-called *weak definites*, as in 'Lola is reading the newspaper', on the interpretation where no particular newspaper is involved (Carlson and Sussman 2005; Aguilar-Guevara and Zwarts 2010; Schwarz 2012). Like quasi-definites, weak definites behave in some ways like indefinites despite their morphological make-up. Weak definites also lack a uniqueness implication, as evidenced by sloppy identity with VP-ellipsis. For example, the following sentence implies that Mary and Bob heard about the same riot, but not necessarily that they heard about it on the same radio (Carlson and Sussman 2005, ex. (3)).

(119) Mary heard about *the riot* on *the radio* and Bob did too.

Weak definites also take narrow scope with respect to quantifiers (Carlson and Sussman 2005).

(120) Four students were busy reading the newspaper.

This sentence could be true in a situation where there was a different newspaper for each student. Weak definites also have a limited capacity to establish discourse referents (Aguilar-Guevara and Zwarts 2010; Scholten and Aguilar-Guevara 2010; Schwarz 2012). Schwarz (2012) gives the following example:

(121) Bill is in *the hospital*, and John is, too. It has an excellent heart surgery department.

Here, *the hospital* does not have a weak definite interpretation. So one might wonder whether quasi-definites are a species of weak definite.

More broadly, one might wonder whether quasi-definites should be analyzed as existential quantifiers (implying, on a dynamic perspective such as that of Heim 1982 or Kamp and Reyle 1993, that they introduce new discourse referents corresponding to tokens of the relevant type) or whether they are not associated with tokens at all, denoting for example kinds or properties, in the way that has been proposed for weak definites in English, as well as for bare nominals in article-less languages like Russian and Hindi (Chierchia 1998; Dayal 2004, 2011), bare singulars in languages with articles such as Norwegian (Borthen 2003) and Swedish (Teleman et al. 1999, Volume III, p. 175ff.),[50] and (pseudo-)incorporation phenomena in for example West Greenlandic (Geenhoven 1996).[51] Although these phenomena differ from each other, they have certain properties in common, as Carlson (2006) discusses; for example, they always effectively take narrowest scope. Such phenomena are typically treated using a special mode of composition. Putting it colorfully, Borthen (2003, 225) characterizes bare singulars in Norwegian as giving a "cry for help"—the nominal needs support in order to be integrated into the sentence, and this can take the form of a special mode of composition. Proposals for such a mechanism include Geenhoven's (1996) Semantic Incorporation, Dayal's (2003, 2011) pseudo-incorporation, Chierchia's (1998) Derived Kind Predication, Chung and Ladusaw's (2004) Restrict, Farkas and de Swart's

---

[50]On bare singulars see also: Kallulli (1999) on Albanian, Asudeh and Mikkelsen (2000) on Danish, Kiefer (1994), Farkas and de Swart (2003) on Hungarian, Schmitt and Munn (1999) on Brazilian Portuguese, and Espinal and McNally (2011) on Spanish and Catalan, among others.

[51]See Borik and Gehrke (2015) for a recent collection of works on pseudo-incorporation.

(2003) Unification of Thematic Arguments, Espinal and McNally's (2011) detransitivizing lexical rule, and Aguilar-Guevara and Zwarts's (2010) Kind Lifting Rule.

The question we now address is: Should quasi-definites be treated in this way, like weak definites, or should they be treated as quantificational indefinites, able to contribute their own existential force? We argue that the data speaks in favor of the latter, so quasi-definites and weak definites exhibit different kinds of intermediacy between definite and indefinite.

6.3.1 Article as marker of kind-level uniqueness?

As mentioned above, one type of analysis that has been proposed for bare nominals is that they denote kinds. Dayal (2004), for example, building on Chierchia's (1998) work, argues that bare nominals in Hindi denote kinds, and relies on Chierchia's (1998) Derived Kind Predication rule which allows these kind-referring entities to be compositionally integrated into the sentence through a sort of semantic incorporation, yielding narrowest scope for the bare nominal. If quasi-definites in Swedish denote kinds, then one might imagine that the function of the definite article is to indicate uniqueness at the kind level (and that the lack of a suffix signals a lack of uniqueness at the ordinary level, the individual level). We will address the question of whether quasi-definites indeed refer to kinds separately; let us first argue that this is not likely to be the function of the definite article (or the lack of a suffix).

As we have shown, the article occurs without the suffix only in the presence of elative superlatives. If the quasi-definite pattern served to indicate uniqueness merely at the kind level, then we would expect a wider range of cases with a definite article and no suffix. If *den vackraste prinsessa* refers to the kind of extremely beautiful princesses, then why can't *den vackra prinsessa* refer to the kind of beautiful princesses? Suppose that the pivot of an existential construction denotes a kind, as proposed by McNally (1997). Then we would expect the following to be acceptable, in the absence of additional explanatory factors:

(122) *Det   sitter den vackra   prinsessa i tornet.
      EXPL sits   the beautiful princess in tower.DEF
      'There sits a beautiful princess in the tower.'

While we do not know of any dialects of Swedish that allow this, there are in fact Scandinavian varieties spoken in Sweden where definiteness-marking is found on intuitively indefinite expressions in the pivot of an existential construction. An example is the following, from Älvdalian (Dahl 2004):

(123) Eð liep   nið   smelt-wattneð i uälũ.
      it run.PAST down melt-water.DEF in hole.DEF.ACC
      'Melting water was running down into the hole.'

This phenomenon is discussed extensively by Dahl (2004), who identifies a class of uses of definite articles in vernacular Scandinavian varieties that he calls 'non-delimited'. Delsing (1993) calls these uses 'partitive', drawing a connection to the French partitive article *de*; indeed, these uses have a similar distribution to French

de, which has been argued to be subject to incorporation (Heyd 2003). A kind analysis does seem quite promising for these uses of definiteness-marking in Scandinavian. But example (123) would not be appropriate with any sort of definiteness-marking in standard Swedish. So kind reference is not systematically accompanied by definiteness-marking in standard Swedish, and the quasi-definite pattern is not characteristic of it.

In general, we do not see how an analysis of the quasi-definite pattern as a signal of definiteness on a kind level could, on its own, shed light on the fact that quasi-definites are restricted in their distribution to noun phrases modified by elative superlatives; there does not seem to be any intrinsic connection between kind reference and elativity. An analysis based on uniqueness at the degree level, on the other hand, has the potential to explain this connection.

6.3.2 Are quasi-definites semantically incorporated?

Having set aside the idea that kind-reference is *marked* by the morphological pattern of quasi-definites, let us now consider the possibility that quasi-definites are nevertheless radically referentially deficient and hence subject to semantic incorporation, like bare singulars and weak definites. We argue that quasi-definites are quite different from both weak definites and bare singulars, and therefore should not be analyzed in the same way.

Morphology In Swedish, weak definites take a definite suffix, unlike quasi-definites. For example, *tidning-en* 'newspaper-DEF' in a phrase like *läsa tidningen* 'read the newspaper', has a weak definite interpretation. This can be seen using the sloppy identity test.

(124) Anna läser *tidning-en* och det gör Robert också.
'Anna is reading the *newspaper*-DEF and Robert is doing that too.'

This example does not imply that Anna and Robert are reading the same newspaper. So the suffix appears in weak definites in Swedish.

Weak definites are typically not modifiable (Carlson and Sussman 2005; Aguilar-Guevara and Zwarts 2010), so it is not straightforward to construct a weak definite in which a definite article would appear, but they can be modified by affective expressions (Carlson et al. 2006, p. 6), and there we see the usual double-definiteness pattern:

(125) Måste du sitta och läsa *den jävla tidning-en* hela dagen?
'Do you have to sit and read the blasted newspaper-DEF all day?'

Den jävla tidningen 'the blasted [lit. devilish] newspaper' has a weak definite reading here. So whether an article is present or not, weak definites in Swedish may be marked with a definite suffix, in contrast to quasi-definites.

Subject position As Carlson et al. (2006) point out, weak definites are not comfortable in subject position; for example:

(126) *The newspaper* looked old. [No weak definite reading]

Similar restrictions have been observed for bare singulars in Norwegian (Borthen 2003).[52] This is to be expected under the assumption that weak definites and bare singulars depend on compositional strategies such as semantic incorporation in order to be integrated into the sentence, because for incorporation to happen, there must be a predicate for the nominal to incorporate into and thereby create a new predicate. Incorporated nominals are thus in some sense modifiers of a predicate (indeed, quite a literal sense under Espinal and McNally's (2011) analysis). Subjects cannot be construed as modifiers of any predicate, since they are the target of predication.

Quasi-definites occur quite freely in subject position, contrary to what would be predicted under an incorporation analysis. Example (15) above contained a quasi-definite in subject position, and others in this category include:

(127) Men som bekant har även *de vildaste fester* ett slut.
'But as is known even *the wildest parties* have an end.'

(128) Även *de sjukaste YouTube-klipp* blir ointressanta till slut.
'Even *the sickest YouTube clips* become uninteresting in the end.'

(129) Inte ens *den blåvitaste galning* tordes andas nå't åt det hållet.
'Not even the *blue-whitest lunatic*[53] dared breathe something in that direction.'

In Korp-200 there are 25 quasi-definite subjects—a reasonably high proportion. This is hard to accommodate under the view that quasi-definites need to be semantically incorporated.

Institutionalized activities and lexical restriction Weak definites and bare singulars are restricted to sentences describing 'institutionalized' or 'habitual' or 'nameworthy' activities (Carlson 2006, i.a.). For example *read the newspaper* has a weak definite interpretation but *see the newspaper* does not. Related, there is a restricted set of nouns that participate in weak definites; *read the newspaper* has a weak definite reading but *read the book* does not.

Such restrictions do not hold for quasi-definites. Recall (38a), for example, repeated here:

(130) Ett litet skämt kan skingra *det tätaste allvar*.
'A little joke can disperse *the tightest seriousness*.'

To 'disperse seriousness' is not a habitual or institutionalized activity (unfortunately, perhaps). And we find a wide range of head nouns in quasi-definites, as we have seen (e.g. *skivbolagsdirektör* 'record company director').

Modification Weak definites and bare singulars resist modification; hence *the new hospital on a weak definite interpretation, vs. *the medical hospital*, where *medical* is a 'taxonomic' modifier (Aguilar-Guevara and Zwarts 2010). Quasi-definites not only require modification, but also accept further modification easily (e.g. *den tystaste lilla mus* 'the quietest little mouse').

---

[52]Borthen (2003, p. 199) points out that bare singular nouns in Norwegian can be subjects, as long as they are type-denoting and the type is topical.

[53]Blue and white are the colors of an important soccer team in Gothenburg.

Anaphora Furthermore, quasi-definites establish discourse referents more readily than weak definites. As we have seen, quasi-definites establish discourse referents, in for example conditionals as in (44), repeated here in (131).

(131) Har du *den minsta fråga$_i$*, ställ *den$_i$* här eller SMS:a till ...
'If you have *the slightest question$_i$*, pose *it$_i$* here or text to ...'

The same is not true for weak definites:

(132) If John is in *the hospital$_i$*, and Bill is, too, then *it$_i$* must have an excellent heart surgery department.

This sentence does not have a weak definite interpretation; Bill must be in the same hospital as John.

Bare singulars also have difficulty licensing anaphora. Borthen (2003, p. 37, ex. (28)) gives this example:

(133) Kari ankom flyplassen i *drosje$_i$*. ?*Den$_i$* var grønn.
'Kari arrived at the airport by *taxi$_i$*. *It$_i$* was green.'

The anaphor in (133) is marked, according to Borthen. But we can construct a parallel example with a quasi-definite in Swedish, and it is perfectly fine.

(134) Brudparet anlände till kyrkan i *den läckraste limousin$_i$*. *Den$_i$* var gräddfärgad med guldbeslag.
'The bride and groom arrived at the church in *the most luxurious limousine*. It was cream-colored with gold trim.'

Aguilar-Guevara and Zwarts (2010) adopt Espinal and McNally's (2011) treatment of bare singular nouns in Spanish to "account for the intuition that weak definites do not introduce discourse referents at the individual level, even though they refer to kinds" (p. 187). Quasi-definites can, as we have shown, establish discourse referents at the individual level, so such a treatment would not capture the properties of quasi-definites.

Number neutrality Weak definites and bare singulars are "number neutral". One reflection of this is that they occur only in the singular form. And semantically, they are compatible with both singular and plural interpretations. Espinal and McNally (2011) illustrate this for Catalan bare singulars, contrasting them with singular and plural indefinites, with the following examples.

(135) a. Busco   un pis.
     look_for.1SG a apartment.
     'I'm looking for an apartment.'
   b. Busco   pisos.
     look_for.1SG apartments.
     'I'm looking for apartments.'
   c. Busco   pis.
     look_for.1SG apartment.
     'I'm apartment-hunting.'

These examples differ with respect to the continuations they license.

(136) a.   ... Un a Barcelona.
               '... One in Barcelona.'
       b.   ... Un a Barcelona i un a Girona.
               '... One in Barcelona and one in Girona.'

The singular example (135a) can be followed by the simple continuation (136a) but not the conjoined one (136b), and the plural example (135b) can be followed by the conjoined continuation (136b) but not the simple one (136a), in accordance with their number morphology. The bare singular example (135c), however, can be followed by either continuation. So the bare singular does not restrict the number of apartments being looked for.

Quasi-definites, in contrast, are not number neutral. There are both singular and plural quasi-definites, as we have seen, and the distribution in our sample of 200 is almost exactly half and half: 102/200 are plural. The fact that some are singular and some are plural already suggests that number-marking is playing some role.

Indeed, we can see that this is so using Espinal and McNally's (2011) strategy. Compare the following two variants of a naturally-occurring example, one singular and one plural.[54]

(137) Nyfikenhet är en synd som straffas med ...
       a.   *det hemskaste straff* [singular]
       b.   *de hemskaste straff* [plural]
       ... i vår mytbildning.
       'Curiosity is a sin that is punished with *the most horrible punishment(s)* in our mythology.'

The singular variant (137a) can be followed only by the simple continuation below, and the plural variant (137b) can be followed only by the conjoined continuation:

(138) a.   ... Tvångsisolering.
               '... Forced isolation.'
       b.   ... Offentlig degradering och tvångsisolering.
               '... Public humiliation and forced isolation.'

We can see that quasi-definites are not number-neutral using anaphora as well; singular quasi-definites license singular anaphora, and plural quasi-definites license plural anaphora.

(139) Nu ska vi skaffa ståtliga dräkter av *de finaste kläden$_i$* [plural].
       'Now we will buy stately suits of *the finest clothing$_i$*.'
       a.   ... *De$_i$* tillverkas i Italien och importeras i hemlighet.
            '... *They$_i$* are produced in Italy and imported in secret.'
       b.   ... **Det$_i$* tillverkas i Italien och importeras i hemlighet.
            '... *It$_i$* is produced in Italy and imported in secret.'

---

[54]The plural of *straff* 'punishment' is also *straff*; it is the plural article *de* which shows in this case that the noun phrase is plural.

(140) Hon kommer självfallet att kläs i *den vackraste skrud$_i$* [singular].
'She will of course be clad in *the most beautiful garb$_i$*.'
    a. *Den$_i$* sys upp hos drottningens hovleverantör.
        '*It$_i$* are sewn by the queen's main supplier.'
    b. **De$_i$* sys upp hos drottningens hovleverantör.
        '*They$_i$* are sewn by the queen's main supplier.'

Scope Finally, and importantly, let us observe that quasi-definites do not always take narrowest scope. According to Carlson (2006, p. 4), one of the stable properties of incorporation phenomena is that the incorporated nominal "is interpreted as a narrow-scope indefinite only, showing no scoping interactions with other logical operators in the same sentence that is typical of syntactically-expressed indefinites." Weak definites and bare singulars always take narrow scope, in other words. Borthen (2003, ex. (4)) illustrates this for bare singulars in Norwegian with the following contrast:

(141) a. Alle barna   prøvde en jakke.
           all   children.DEF.PL tried   a jacket
           'All the children tried on a jacket.'
       b. Alle barna   prøvde jakke.
           all   children.DEF.PL tried   jacket
           'All the children tried on some jacket or other.'

According to Borthen, (141a) has a reading where there was one jacket that everyone tried, and (141b) does not have such a reading.

Quasi-definites take narrow scope under a wider range of circumstances than ordinary indefinites, as we have seen, but it is possible for quasi-definites to take wide scope. An example of this is (59) above, repeated here:

(142) Alla rummen var målade i *den fulaste färg*—en illgrön nyans som påminde om Lisebergskaninerna.
'All of the rooms were painted in *the ugliest color*—a sickly green shade that was reminiscent of the Liseberg rabbits.'

Again, this sentence has a wide-scope reading for the quasi-definite, which can be paraphrased, 'There is an extremely ugly color that all the rooms were painted in' and the existence of this reading is shown by the continuation, which identifies the exact color in question. So quasi-definites do not always take narrowest scope, contrary to what a kind or property-based analysis of quasi-definites would predict.

7 Closing remarks

Quasi-definites in Swedish present an interesting case of mismatch in definiteness marking; they are marked with an initial definite article but lack the definite suffix otherwise found in definite noun phrases. Our investigation has revealed that quasi-definites always contain a superlative adjective which is interpreted as an *elative*, meaning 'to a very high degree'. A quasi-definite like *det starkaste teleskop* 'the

strongest telescope' is interpreted as 'a telescope that is strong to the highest degree of strength', not as 'the strongest of a set of telescopes'.

Quasi-definites behave like ordinary indefinites in many important respects, but not all: they exhibit certain scope restrictions that ordinary indefinites do not, and they are sensitive to polarity reversals. We have argued that elative superlatives are inherently emphatic, and clauses containing them must be stronger than alternatives formed by replacing higher degrees with lower degrees. The relevant strength ranking need not be an entailment ranking; however, this is preferred, and this preference drives the choice between alternative scope interpretations.

The pragmatics of emphasis also explains the special behavior of quasi-definites with respect to polarity. Some quasi-definites behave as NPIs, for example those containing *minsta* 'smallest'. For other quasi-definites, the scale of strength typically aligns with the degree scale so they are felicitous in a positive sentence but not its negation. Thus quasi-definites occupy two of the cells in Israel's (2011) typology: high-on-scale emphatic positive polarity items, and low-on-scale emphatic negative polarity items. But some quasi-definites may not show any affinity for one polarity or another; there are fine shades of gray between quasi-definites that prefer positive environments and those that prefer negative ones. What unites them is that they are inherently emphatic. So quasi-definites illustrate the fact that emphasis is a category that transcends polarity.

In our formal analysis, definiteness-markers are assumed to denote identity functions on predicates, presupposing uniqueness but not existence, as in Coppock and Beaver's (2015) analysis of English *the*. However, the definite article *det/den* does not have any semantics of its own; it merely reflects the presence of a definiteness concord feature. The feature can be interpreted anywhere it appears throughout the DP (though only once), in particular within the adjectival projection. There it may signal uniqueness with respect to a property of degrees. Elative superlatives involve a comparison class of degrees, and select the highest degree in the context. Since a description including a nominal modified by an elative superlative need not uniquely characterize any salient individual, the suffix need not appear with them. We thereby explicate Julien's (2005) intuition that quasi-definites exhibit "a special kind of definiteness" which is "confined to the adjectival phrase" (p. 41). This analysis is capable of explaining the fact that quasi-definites are restricted to elative uses of superlatives, rather than being sensitive to referential status, and it correctly predicts that quasi-definites behave essentially like indefinites.

This analysis provides evidence for a kind of definiteness that is interpreted at a degree level, within the adjectival projection. Double-definiteness marking makes this phenomenon particularly conspicuous in Swedish, but we expect that this phenomenon may have more subtle instantiations in other languages as well.

In the course of giving our analysis, we have offered a treatment of elative superlatives, which we have done in a way that unifies elative and ordinary meanings of superlatives: For an ordinary superlative interpretation, AP+Comp forms a unit, and for an elative superlative, Comp+Sup forms a unit. It would be interesting to see to what extent this analysis of elatives can fruitfully be applied to English. While there are some basic similarities, a first glance reveals a few differences as well. One difference is that the elatives in English involving periphrastic *most* and an indefinite article, as in *We had a most delightful dinner* is restricted to a certain high genre

(and associated lexical restrictions). Furthermore, indefinite elatives seem to be limited to periphrastic *most*; consider **My friend has a cutest kitten*. We also don't seem to find indefinite elatives in English functioning as NPIs (^{??}*She doesn't have a most microscopic idea what it's like to be in prison*), although definite elatives do seem to function that way (*She doesn't have the faintest idea...*). We conjecture that perhaps indefinite elatives in English are not appropriate in case of entailment down the degree scale. This would predict that *even* would not be compatible with *a most*, and there are certainly cases in which it is not compatible: *Everything was lovingly decorated in (*even) a most extraordinary fashion.* We must leave these speculations to be investigated more fully in future work.

Appendix: Details of the judgment study

In Sect. 2.1, we mentioned a corpus study in which we searched for *den* or *det*, followed by an adjective, followed by a noun without a definite suffix, and filtered out cases that do not meet the definition of a quasi-definite. Categories that were excluded included:

– cases involving relative clauses (e.g. *den stora insjö den i verkligheten är* 'the big lake it in reality is')
– cases involving pronoun *det* instead of the article *det* (e.g. *en stund var det nära slagsmål*) 'for a while it was near a fight'; other cases where the string was not an NP constituent for one reason or another (e.g. ... *vilket inte var [det lättaste] [mitt i semestertider]* 'which wasn't the easiest in the middle of vacation times')
– cases involving genitive (e.g. *[det förflutnas] fängelse* 'the past's prison')
– examples in foreign languages (e.g. ... *via ett mycket aktivt deltagande i "den nationale kompromis"*, 'via a very active participation in "the national compromise"' where the words in quotes are in Danish), examples involving mention rather than use (e.g. *Back är ett lån av det engelska back* '*Back* is a loan from the English *back*')
– cases of syncretism between definite and indefinite on the head noun (e.g. *den regionala samverkan*, where the noun *samverkan* can be either definite or indefinite)
– and dates (e.g. *den sista augusti*).

After filtering out cases that do not meet the definition of a quasi-definite, we were left with 138 examples. Of these 138, 90 contained a superlative adjective. Of those that did not, 19 were the fixed expression *den milda grad* 'the small degree' and two were archaic (*den ljusnande framtid* 'the brightening future', from an old song).

   To determine whether the remaining 27 were editing mistakes, we carried out a small grammaticality survey involving 10 native speakers of Swedish, who were

Tack och välkommen!

Följande meningar kommer från Göteborgs Posten. Vilken variant tycker du låter bäst på svenska?

[486] Då, eller om det var efter den nya [fjärdeplatsen ‡] vid Los Angeles-OS 1984, pekade mästaren Ed Moses ut svensken som den som skulle ta över efter honom.

[47] Kineserna visar varje dag under besöket att de inte har den ringaste ✓ att bry sig om eventuella förmaningar när det gäller mänskliga rättigheter.
  avsikten
  avsikt
  (båda går bra)

[12] Trycket på Fulke resulterade i att han efter en briljant inledning, där neter ifrån hole-in-one på det första hålet (par-4, 230 meter), placerade de två följande utslagen i skoge. På femte hålet toppade han inspelet, som den nervösaste [‡] - och sedan följde bogey på bogey (sju totalt).

Fig. 1 Web interface for collecting grammaticality judgements

asked to choose between definite and bare forms of nouns in their original sentence context. Along with the 27 potential editing errors, participants were presented with 18 cases involving superlatives, two cases involving the fixed expression *den milda grad*, two cases involving the fixed expression *den ljusnande framtid*, and 18 control cases where the original sentence contained a definite suffix, for example:

(143) Med hjälp av data från de bägge mätpunkterna kan man i efterhand exakt räkna ut *den nya position-en*.
'With the help av data from the two measurement points, one can afterwards exactly calculate *the new position*-DEF.'

The comlete set of stimuli can be accessed at Språkbanken.[55]

The sentences were presented with a drop-down menu at the target noun, where the participants could choose the definite form, choose the bare form, say that both are acceptable or leave the question blank. A screenshot of the web interface is given in Fig. 1. Note that there is no indication as to what the original version was. The sentences were presented in a unique random order for each participant, and it was randomly chosen whether the definite or the indefinite (i.e. suffixless) form would come first in the list for each item and participant.

The results are shown in Fig. 2. For each example, the graph illustrates the number of participants who selected the indefinite version ('indef), the definite version ('def), said that both options were acceptable ('both'), and left the question blank ('none'). As the reader can see, the superlatives look very much like the fixed expressions, and the non-superlatives look very much like the control cases.

Statistical tests confirm these impressions. We carried out six Pearson's χ-square tests (using simulated p-values with 2000 replicates as some cells had fewer than five observations), yielding pairwise comparisons between the four groups of examples. Because we are doing multiple comparisons, we must adjust our α-level. Whether we do a Bonferroni correction (where α is divided by the number of tests, a relatively extreme correction), or one of the two less extreme corrections Holm or Benjamini–Hochberg, the same set of pairwise comparisons turn out to be significant: The superlatives cluster with the fixed expressions (no significant difference between these
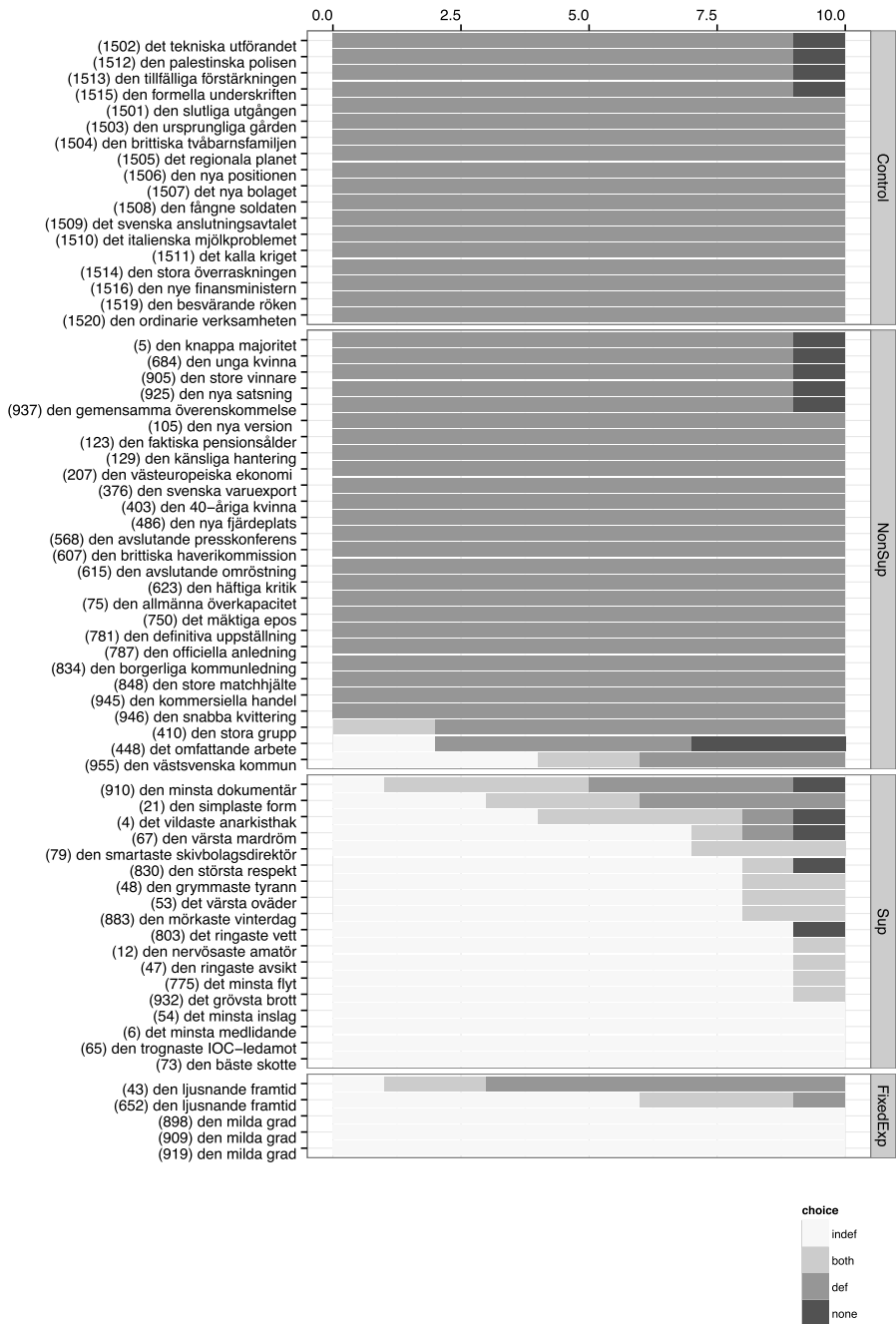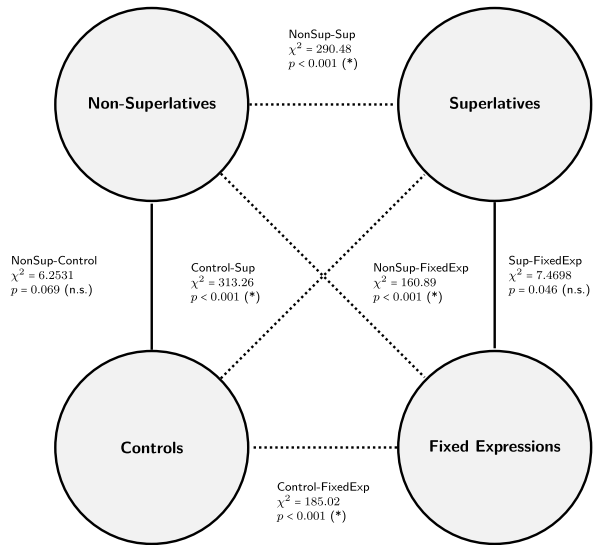
---

[55] https://svn.spraakbanken.gu.se/sb-arkiv/pub/coppock/superlatives.

Fig. 2 Results of the judgment study

Fig. 3 Results of χ^2-tests testing pairwise comparisons between groups of examples. Dotted lines separate groups that are significantly different from each other; thick lines connect groups that are not significantly different

two), and, crucially, the non-superlatives cluster with the controls (no significant difference between these two). All other pairwise comparisons are significant. These results, along with the specific χ^2 and p values, are summarized in Fig. 3.

It is worth emphasizing that there was no significant difference between the control group, where the original example contained a suffix, and the non-superlative group, where it was hypothesized that the absence of a suffix was due to a typo. This supports the hypothesis that all quasi-definites contain a superlative, with the exception of fixed expressions including *den milda grad* and *den ljusnande framtid*.

So, overall, the results of the study accorded with our expectations. For the cases with superlatives, it was expected that participants should generally prefer the original version without the definite suffix, although a definite suffix should also be acceptable on a non-elative reading of the superlative. This prediction was supported. In 16/18 of the cases with superlatives, the original variant without the suffix was preferred by a majority. In two of the cases the original variant without the suffix was still preferred by some, but not a majority. We speculate that the context may not have clearly favored an elative interpretation of the superlative in these cases.

For the controls, it was expected that participants would choose the original (definite) version, and this occurred in all cases except the very few where a participant left the question blank.

For the non-superlative examples (excluding the fixed expressions), we reason as follows. If all quasi-definites contain a superlative adjective, then participants should not allow the head noun to be bare unless there is a superlative adjective present. This predicts that all of the 27 non-idiomatic cases without a superlative adjective should be considered ungrammatical without the definite suffix. Participants should *always* prefer the version with the definite suffix, and not even say that both variants are acceptable (as with the controls). This strong prediction was met for 24/27 cases, where 100% of the participants who did not leave the question blank said that they

preferred the version with the definite article. (In five of these cases, one person left the question blank.) Here are three examples in this category:

(144) Tidigare hade Microsoft, som är världens största programvarutillverkar, utlovat en lansering av *den nya version*(-en)* av Windows under första halvåret 1995.
'Earlier, Microsoft, as the world's biggest software producer, had promised a release of *the new version*(-DEF)* of Windows during the first half of 1995.'

(145) Den ekonomiska integrationen av det fd kommunistiska Östeuropa med *den västeuropeiska ekonomi*(-n)* har således gått snabbt.
'The economic integration of the previously communist Eastern Europe with *the western European economy*(-DEF)* has thus gone quickly.'

(146) Heja *den unga kvinna*(-n)* på linje 1 mot Östra sjukhuset den 3 december kl 12.40. Och skäms övriga passagerare.
'Yay for *the young girl*(-DEF)* on line 1 towards Östra hospital on the third of December at 12:40. And shame on other passengers.'

Indeed, we have already seen that the non-superlative group is not significantly different from the control group.

However, there were three cases for which at least one participant allowed the bare form, and these data points deviate from our expectations. The least interesting of these is the following, where it is the definite article which seems to have been the typo:

(147) Får vi ett stopp i en fabriksanläggning av detta slag är det *det omfattande arbete* [alt: *arbetet*] att få igång den igen i den rådande kylan.
'If we get a stop in the manufacturing plant of this kind, it is *the enormous job* to get it going again i the current cold.'

In this case, 5/10 participants preferred the definite form, 2/10 preferred the bare form, and 3/10 left the question blank (more than with any other question). In fact, neither version is fully acceptable; it seems that the intention was to have an indefinite article rather than a definite article (thus *ett omfattande arbete* 'an enormous job'); this makes the sentence acceptable (as in English).

The most interesting of the exceptions is the following, for which 4/10 participants preferred the head noun in the bare form, and 2/10 said that both were acceptable. (4/10 said preferred the version with the definite suffix as expected.)

(148) Folkpartiombudsmannen Göran Lidgren i Skaraborg säger till GP apropå folkpartistyrda Tibros läge som *den västsvenska kommun* [alt: *kommunen*] med minst kvinnor i politiken att det kan ha att göra med svårigheterna att rekrytera politiker: . . .
'The Folk Party ombudsman Göran Lidgren in Skaraborg says to [Göteborgs Posten] apropos the Folk Party-controlled Tibro's status as *the west-Swedish municipality* [alt: *municipality*-DEF] with the fewest women in politics that it can have to do with weaknesses in recruiting politicians: . . .'

Here we have a prepositional phrase following the head noun ('with the fewest women in politics'). Normally a prepositional phrase is not sufficient to license drop

of the suffix, even when it plays the role that a relative clause would. But this may nevertheless be a case where a prepositional phrase can, like a relative clause, license drop of the suffix. In any case, the prepositional phrase in this example is crucial; dropping it would make the sentence clearly ungrammatical.[56]

Another case for which the indefinite variant was not unanimously rejected also contained a prepositional phrase:

(149)   Mest drastisk blir effekten för *den stora grupp* [alt: *gruppen*] med inkomster mellan 14600 och 22000 kronor.
'Most dramatic is the effect for *the large group* [alt: *group*-DEF] with incomes between 14600 and 22000.'

For this case, 8/10 preferred the definite form as expected, but 2/10 participants said that both the definite and the indefinite variants were acceptable. The prepositional phrase following the head noun ('with incomes between 14600 and 22000') may be why.

These two interesting exceptions and the fixed expressions aside, the generalization that quasi-definites always contain a superlative adjective was strongly supported. The corpus examples that matched the quasi-definite pattern (DET-ADJ-NOUN, with bare NOUN) in which the modifying adjective was not a superlative were consistently corrected to a version containing a definite article by native speakers, and there was no statistically significant difference between this group and the controls that originally contained a definite suffix.

References

Abbott, Barbara. 1997. Definiteness and existentials. *Language* 73: 103–108.
Aguilar-Guevara, Ana, and Joost Zwarts. 2010. Weak definites and reference to kinds. In *Semantics and Linguistic Theory (SALT) 20*, 179–196. eLanguage.
Alexiadou, Artemis. 2014. *Multiple determiners and the structure of DPs*. Amsterdam: John Benjamins.
Aloni, Maria, and Floris Roelofsen. 2014. Indefinites in comparatives. *Natural Language Semantics* 22: 145–167.
Anscombre, Jean-Claude, and Oswald Ducrot. 1983. *L'argumentation dans la langue*. Brussels: Mardaga.
Asudeh, Ash, and Line Mikkelsen. 2000. Incorporation in Danish: Implications for interfaces. In *Grammatical interfaces in HPSG*, eds. Ronnie Cann, Claire Grover, and Philip Miller, 1–15. Stanford: CSLI Publications.
Baker, Carl Leroy. 1970. Double negatives. *Linguistic Inquiry* 1: 167–186.
Barker, Chris, and Chung-Chieh Shan. 2008. Donkey anaphora is in-scope binding. *Semantics and Pragmatics* 1(1): 1–40.
Barwise, Jon, and Robin Cooper. 1981. Generalized quantifiers and natural language. *Linguistics and Philosophy* 4: 159–219.
Beaver, David, and Emiel Krahmer. 2001. A partial account of presupposition projection. *Journal of Logic, Language and Information* 10: 147–182.
Beltrama, Andrea. 2014. Scalar meaning in diachrony: The suffix *-issimo* from Latin to Italian. In *North East Linguistic Society (NELS) 44*, eds. Jyoti Iyer and Leland Kusmer, 29–40. Amherst: GLSA.
Beltrama, Andrea, and Ryan Bochnak. 2015. Intensification without degrees cross-linguistically. *Natural Language and Linguistic Theory* 33: 843–879.

---

[56]Quasi-definites followed by prepositional phrases seem to be quite common in Norwegian, as pointed out by a reviewer.

Berlanda, Sara. 2013. Constructional intensifying adjectives in Italian. In *Multiword Expressions (MWE) 9*. Association for Computational Linguistics.

Bobaljik, Jonathan David. 2012. *Universals in comparative morphology: Suppletion, superlatives, and the structure of words*. Cambridge: MIT Press.

Bolinger, Dwight. 1972. *Degree words*. The Hague: Mouton.

Borik, Olga, and Berit Gehrke. 2015. *The syntax and semantics of pseudo-incorporation*. Leiden: Brill.

Börjars, Kersti. 1995. Swedish double determination in a European typological perspective. *Nordic Journal of Linguistics* 17: 219–252.

Börjars, Kersti. 1998. *Feature distribution in Swedish noun phrases*. Oxford: Blackwell.

Börjars, Kersti, and Mark Donohue. 2000. Much ado about nothing: Features and zeros in Germanic noun phrases. *Studia Linguistica* 54: 309–353.

Borthen, Kaja. 2003. Norwegian bare singulars. PhD diss., Norwegian University of Science and Technology.

Borthen, Kaja. 2007. The distribution and interpretation of Norwegian bare superlatives. Department of language and communication studies, Norwegian University of Science and Technology.

Borthen, Kaja. 2008. Beste foredrag i manns minne? Om nakne superlativer [Best presentation in the memory of humankind? On bare superlatives]. Presentation (with hand-out) at Språkdagen, Dragvoll, NTNU.

Bylinina, Lisa, and Yasutada Sudo. 2015. Varieties of intensification: Remarks on Beltrama and Bochnak 'Intensification without degrees cross-linguistically'. *Natural Language and Linguistic Theory* 33: 881–895.

Carlson, Gregory. 2006. The meaningful bounds of incorporation. In *Non-definiteness and plurality*, eds. Svetlana Vogeleer and Liliane Tasmowski, 35–50. Amsterdam: John Benjamins.

Carlson, Gregory, and Rachel Sussman. 2005. Seemingly indefinite definites. In *Linguistic evidence: Empirical, theoretical, and computational perspectives*, eds. Stephan Kesper and Marga Reis, 26–30. Berlin: Mouton de Gruyter.

Carlson, Gregory N., Rachel Sussman, Natalie Klein, and Michael Tannenhaus. 2006. Weak definite noun phrases. In *North East Linguistic Society (NELS) 36*, eds. Christopher Davis, Amy Rose Deal, and Youri Zabal, 179–196. GSLA, University of Massachusetts.

Chierchia, Gennaro. 1995. *Dynamics of meaning: Anaphora, presupposition, and the theory of grammar*. Chicago: University of Chicago Press.

Chierchia, Gennaro. 1998. Reference to kinds across languages. *Natural Language Semantics* 6: 339–405.

Chierchia, Gennaro. 2006. Broaden your views: Implicatures of domain widening and the "logicality" of language. *Linguistic Inquiry* 37(4): 535–590.

Chierchia, Gennaro. 2013. *Logic in grammar: Polarity, free choice, and intervention*. Oxford: Oxford University Press.

Chung, Sandra, and William Ladusaw. 2004. *Restriction and saturation*. Cambridge: MIT Press.

Cinque, Gugliemo. 2010. *The syntax of adjectives*. Linguistic inquiry monographs. Cambridge: MIT Press.

Claridge, Claudia. 2007. The superlative in spoken English. In *Corpus linguistics: 25 years on*, ed. Roberta Facchinetti, 121–148. Amsterdam: Rodopi.

Cooper, Robin. 1986. Swedish and the head-feature convention. In *Topics in Scandinavian syntax*, eds. Lars Hellan and Kirsti Koch Christensen. *Studies in natural language and linguistic theory*, 31–52. Dordrecht: Reidel.

Coppock, Elizabeth. 2009. The logical and empirical foundations of Baker's Paradox. PhD diss., Stanford University.

Coppock, Elizabeth, and David Beaver. 2012. Weak uniqueness: The only difference between definites and indefinites. In *Semantics and Linguistic Theory (SALT) 22*, ed. Anca Chereches, 527–544. Ithaca: CLC Publications.

Coppock, Elizabeth, and David Beaver. 2015. Definiteness and determinacy. *Linguistics and Philosophy* 38(5), 377–435.

Cresswell, Max J. 1977. The semantics of degree. In *Montague grammar*, ed. Barbara Partee, 261–292. New York: Academic Press.

Crnič, Luka. 2011. Getting *even*. PhD diss., MIT.

Dahl, Östen. 1978. How do noun phrases refer? In *The Nordic languages and modern linguistics*, ed. John Weinstock. Austin: University of Texas Press.

Dahl, Östen. 2004. Definite articles in Scandinavian: Competing grammaticalization processes in standard and non-standard varieties. In *Dialectology meets typology: Dialect grammar from a cross-linguistic perspective*, ed. Bernd Kortmann. Berlin: Walter de Gruyter.

Dahl, Östen. 2015. *Grammaticalization in the North: Noun phrase morphosyntax in Scandinavian vernaculars*. Berlin: Language Science Press.

Dayal, Veneeta. 2003. A semantics for pseudo-incorporation. Ms., Rutgers University.

Dayal, Veneeta. 2004. Number marking and (in)definiteness in kind terms. *Linguistics and Philosophy* 27: 393–450.

Dayal, Veneeta. 2011. Hindi pseudo-incorporation. *Natural Language and Linguistic Theory* 29(1): 1–45.

Delsing, Lars-Olof. 1988. The Scandinavian noun phrase. In *Working papers in Scandinavian syntax*, Vol. 42, 57–79. Lund: Lund University.

Delsing, Lars-Olof. 1993. *The internal structure of noun phrases in the Scandinavian languages*. Malmö: Team Offset.

Ducrot, Oswald. 1973. *La preuve et le dire*. Paris: Maison Mame.

Ducrot, Oswald. 1980. *Les échelles argumentatives*. Paris: Minuit.

Embick, David, and Rolf Noyer. 2001. Movement operations after syntax. *Linguistic Inquiry* 32: 555–595.

Espinal, Maria T., and Louise McNally. 2011. Bare nominals and incorporating verbs in Catalan and Spanish. *Journal of Linguistics* 47(2): 87–128.

Farkas, Donka. 2002. Specificity distinctions. *Journal of Semantics* 19(3): 213–243.

Farkas, Donka, and Henriëtte de Swart. 2003. *The semantics of incorporation*. Stanford: CSLI Publications.

Fauconnier, Gilles. 1975a. Polarity and the scale principle. In *Chicago Linguistic Society (CLS) 11*, eds. Robin E. Grossman, L. James San, and Timothy J. Vance, 188–199. Chicago: Chicago Linguistic Society.

Fauconnier, Gilles. 1975b. Pragmatic scales and logical structure. *Linguistic Inquiry* 6(3): 353–375.

Fitzgibbons, Natalia, Yael Sharvit, and Jon Gajewski. 2009. Plural superlatives and distributivity. In *Semantics and Linguistic Theory (SALT) 18*, eds. Tova Friedman and Satoshi Ito, 302–318. eLanguage.

Francez, Itamar. 2009. Existentials, predication, and modification. *Linguistics and Philosophy* 32(1): 1–50.

Frege, Gottlob. 1892 [reprinted 1948]. Sense and reference. *Philosophical Review* 57(3): 209–230.

Geach, Peter. 1962. *Reference and generality*. Ithaca: Cornell University Press.

Geenhoven, Veerle van. 1996. Semantic incorporation and indefinite descriptions: Semantic and syntactic aspects of West Greenlandic noun incorporation. PhD diss., University of Tübingen.

Gelderen, Elly van, and Terje Lohndal. 2008. The position of adjectives and double definiteness. In *Working papers in Scandinavian syntax*, Vol. 82, 1–22. Lund: Lund University.

Giannakidou, Anastasia. 2007. The landscape of EVEN. *Natural Language and Linguistic Theory* 25: 39–81.

Giannakidou, Anastasia. 2011. Negative and positive polarity items. In *Handbook of semantics*, eds. Claudia Maienborn, Klaus von Heusinger, and Paul Portner, 1660–1712. Berlin: Mouton de Gruyter.

Gyarmathy, Zsófia. 2012. The role of granularity in event semantics. In *Twenty years of theoretical linguistics in Budapest*, eds. Ferenc Kiefer and Zolán Bánréti, 93–108. Budapest: Tinta Publishing House.

Hackl, Martin. 2009. On the grammar and processing of proportional quantifiers: *most* vs. *more than half*. *Natural Language Semantics* 17: 63–98.

Hankamer, Jorge, and Line Mikkelsen. 2002. A morphological analysis of definite nouns in Danish. *Journal of Germanic Linguistics* 14: 127–175.

Hankamer, Jorge, and Line Mikkelsen. 2005. When movement must be blocked: A reply to Embick and Noyer. *Linguistic Inquiry* 36: 85–125.

Heck, Fabian, Gereon Müller, and Jochen Trommer. 2008. A phase-based approach to Scandinavian definiteness marking. In *West Coast Conference on Formal Linguistics (WCCFL) 26*, eds. Charles B. Chang and Hannah J. Haynie, 226–233. Somerville: Cascadilla Press.

Heim, Irene. 1982. The semantics of definite and indefinite noun phrases. PhD diss., U. Mass Amherst.

Heim, Irene. 1991. Artikel und Definitheit. In *Semantik: Ein internationales handbuch der zeitgenössischen forschung*, eds. Arnim von Stechow and Dieter Wunderlich, 487–535. Berlin: Mouton de Gruyter.

Heim, Irene. 1999. Notes on superlatives. Ms., MIT.

Heim, Irene. 2000. Degree operators and scope. In *Semantics and Linguistic Theory (SALT) 10*, eds. Brendan Jackson and Tanya Matthews, 40–64. Ithaca: CLC Publications.

Heim, Irene. 2006. Remarks on comparative clauses as generalized quantifiers. Available on Semantics Archive.

Heim, Irene, and Angelika Kratzer. 1998. *Semantics in generative grammar*. Oxford: Blackwell.

Hellan, Lars. 1986. The headedness of NPs in Norwegian. In *Features and projections*, eds. Pieter Muysken and Henk van Riesdijk, 89–122. Dordrecht: Foris.

Herburger, Elena. 2000. *What counts: Focus and quantification*. Cambridge: MIT Press.

Herdan, Simona, and Yael Sharvit. 2006. Definite and nondefinite superlatives and NPI licensing. *Syntax* 9(1): 1–31.

Heyd, Sophie. 2003. L'interpretation des syntagmes nominaux en 'des' et 'de' en position sujet et objet. PhD diss., University of Strasbourg 2.

Hoeksema, Jack. 1985. *Categorial morphology*. New York: Garland.

Holmberg, Anders. 1987. The structure of NP in Swedish. In *Working papers in Scandinavian Syntax*, Vol. 33, 1–23. Lund: Lund University.

Israel, Michael. 2011. *The grammar of polarity*. Cambridge: Cambridge University Press.

Julien, Marit. 2002. *Syntactic heads and word formation*. New York: Oxford University Press.

Julien, Marit. 2005. *Nominal phrases from a Scandinavian perspective*. Amsterdam: John Benjamins.

Kallulli, Dalina. 1999. The comparative syntax of Albanian: On the contribution of syntactic types to propositional interpretation. PhD diss., University of Durham.

Kamp, Hans. 1981. Some remarks on the logic of change, Part I. In *Time, tense, and quantifiers*, 135–179. Tübingen: Max Niemeyer.

Kamp, Hans, and Uwe Reyle. 1993. *From discourse to logic*. Dordrecht: Kluwer Academic Publishers.

Karttunen, Lauri. 1976. Discourse referents. In *Notes from the linguistic underground*, ed. James D. McCawley. *Syntax and semantics*, 363–385. New York: Academic Press.

Karttunen, Lauri, and Stanley Peters. 1979. Conventional implicatures. In *Presuppositions*, eds. Choon-Kyu Oh and David A. Dinneen. *Syntax and semantics*. New York: Academic Press.

Katzir, Roni. 2011. Morphosyntactic mismatches, structural economy, and licensing. *Linguistic Inquiry* 42: 45–82.

Kay, Paul. 1990. Even. *Linguistics and Philosophy* 13: 59–111.

Kay, Paul. 1997. *Words and the grammar of context*. Stanford: CSLI Publications.

Kennedy, Christopher. 2014. A de-Fregean semantics (and neo-Gricean pragmatics) for modified and unmodified numerals. *Semantics and Pragmatics*.

Kester, Ellen-Petra. 1993. The inflectional properties of Scandinavian adjectives. *Studia Linguistica* 47: 139–153.

Kiefer, Ferenc. 1994. Noun incorporation in Hungarian. *Acta Linguistica Hungarica* 40(1–2): 149–177.

Krasikova, Sveta. 2012. Definiteness in superlatives. In *Logic, language and meaning*, eds. Maria Aloni, Vadim Kimmelman, Floris Roelofsen, Galit W. Sassoon, Katrin Schulz, and Matthijs Westera, 411–420. Dordrecht: Springer.

Krifka, Manfred. 1995. The semantics and pragmatics of polarity items. *Linguistic Analysis* 25: 209–257.

Kripke, Saul A. 2011. *Philosophical troubles: Collected papers*. Oxford: Oxford University Press.

Lahiri, Uptal. 1998. Focus and negative polarity in Hindi. *Natural Language Semantics* 6: 57–123.

Leu, Thomas. 2008. The internal syntax of determiners. PhD diss., New York University.

Lyons, Christopher. 1999. *Definiteness*. Cambridge: Cambridge University Press.

Matushansky, Ora. 2008. On the attributive nature of superlatives. *Syntax* 11: 26–90.

McNally, Louise. 1992. An interpretation for the English existential construction. PhD diss., UC Santa Cruz.

McNally, Louise. 1997. *A semantics for the English existential construction*. London: Taylor & Francis.

Miller, Philip H. 1992. *Clitics and constituents in phrase structure grammar*. New York: Garland.

Milsark, Gary. 1977. Toward an explanation of certain peculiarities of the existential construction in English. *Linguistic Analysis* 3: 1–29.

Neville, Anne. 2000. An HPSG account of Danish pre-nominals. PhD diss., University of Copenhagen.

Oebel, Guido, ed. 2012. *Crosslinguistic comparison of intensified adjectives and adverbs*. Hamburg: Verlag dr. Kovač.

Partee, Barbara H. 1986. Noun phrase interpretation and type-shifting principles. In *Studies in Discourse Representation Theory and the theory of generalized quantifiers*, eds. Jeroen Groenendijk, Dick de Jongh, and Martin Stokhof, 115–143. Dordrecht: Foris.

Partee, Barbara H., and Mats Rooth. 1983. Generalized conjunction and type ambiguity. In *Meaning, use and the interpretation of language*, eds. Rainer Bäuerle, Christoph Schwartze, and Arnim von Stechow, 361–393. Berlin: Walter de Gruyter.

Payne, John, and Kersti Börjars. 1994. Swedish noun phrases meet Categorial Grammar. In *XIVth Scandinavian Conference of Linguistics and the VIIIth Conference of Nordic and General Linguistics,*

August 16–21, 1993. Special session on Scandinavian Syntax. Gothenburg Papers in Theoretical Linguistics, 111–126.

Percus, Orin. 2006. Antipresuppositions. In *Theoretical and empirical studies of reference and anaphora: Toward the establishment of generative grammar as an empirical science*, ed. Ayumi Ueyama, 52–73. Japan Society for the Promotion of Science.

Platzack, Christer. 2000. A complement-of-N^0 account of restrictive and non-restrictive relatives: The case of Swedish. In *The syntax of relative clauses*, eds. Artemis Alexiadou, Paul Law, André Meinunger, and Chris Wilder, 265–308. Amsterdam/Philadelphia: John Benjamins.

Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech, and Jan Svartvik. 1985. *A comprehensive grammar of the English language*. London: Longman.

Roberts, Craige. 2003. Uniqueness in definite noun phrases. *Linguistics and Philosophy* 26: 287–350.

Roehrs, Dorian. 2009. *Demonstratives and definite articles as nominal auxiliaries. Linguistik aktuell/linguistics today*. Amsterdam: John Benjamins.

Rooij, Robert van. 2003. Negative polarity items in questions: Strength as relevance. *Journal of Semantics* 20: 239–273.

Rooth, Mats. 1985. Association with focus. PhD diss., University of Massachusetts at Amherst.

Rullmann, Hotze. 1995. Maximality in the semantics of wh-constructions. PhD diss., University of Massachusetts at Amherst.

Sadock, Jerrold M. 1991. *Autolexical syntax*. Chicago: University of Chicago Press.

Santelmann, Lynn. 1993. The distribution of double determiners in Swedish: *Den* support in D. *Studia Linguistica* 47 (154–176).

Sauerland, Uli, and Penka Stateva. 2007. Scalar vs. epistemic vagueness: Evidence from approximators. In *Semantics and Linguistic Theory (SALT) 17*, eds. Masayuki Gibson and Tova Friedman. eLanguage.

Scheible, Silke. 2009. A computational treatment of superlatives. PhD diss., University of Edinburgh.

Schlenker, Philippe. 2011. Maximize Presupposition and Gricean reasoning. Ms., UCLA and Institut Jean-Nicod.

Schmitt, Cristina, and Alan Munn. 1999. Against the Nominal Mapping Parameter: Bare nouns in Brazilian Portuguese. In *North East Linguistic Society (NELS)*, eds. Nancy Hall, Masako Hirotani, and Pius Tamanji, Vol. 29, 339–353. Amherst: GLSA.

Scholten, Jolien, and Ana Aguilar-Guevara. 2010. Accessing the discourse referential properties of weak definite NPs. In *Linguistics in the Netherlands*, eds. Jacqueline van Kampen and Rick Nouwen, Vol. 27, 115–128. Amsterdam: John Benjamins.

Schoorlemmer, Eric. 2009. Agreement, dominance and doubling. PhD diss., University of Utrecht.

Schwarz, Florian. 2012. How weak and how definite are weak definites? University of Pennsylvania.

Schwarzschild, Roger. 2008. The semantics of comparatives and other degree constructions. *Language and Linguistics Compass* 2(2): 308–331.

Siegel, Muffy E. 1976. Capturing the adjective. PhD diss., University of Massachusetts, Amherst.

Simonenko, Alexandra P. 2007. Grammatical ingredients of definiteness. PhD diss., McGill University.

Stateva, Penka. 2005. Presuppositions in superlatives. Ms., ZAS Berlin.

Stroh-Wollin, Ulla. 2011. A semantic approach to noun phrase structure and the definite-indefinite distinction in Germanic and Romance. In *The noun phrase in Romance and Germanic: Structure, variation and change*, eds. Petra Sleeman and Harry Perridon, 127–140. Amsterdam: John Benjamins.

Stroh-Wollin, Ulla, and Rico Simke. 2014. Strong and weak adjectives in Old Swedish. In *Adjectives in Germanic and Romance*, eds. Freek Van de Velde, Petra Sleeman, and Harry Perridon, 95–112. Amsterdam: John Benjamins.

Svenonius, Peter. 1993. Selection, adjunction, and concord in the DP. *Studia Linguistica* 47: 198–220.

Svenonius, Peter. 1994. The structural location of the attributive adjective. In *West Coast Conference on Formal Linguistics (WCCFL) 12*, eds. Erin Duncan, Donka Farkas, and Philip Spaelti, 438–454. Somerville: Cascadilla Press.

Szabolcsi, Anna. 1986. Comparative superlatives. In *Papers in theoretical linguistics*, eds. Naoki Fukui, Tova Rapoport, and Elizabeth Sagey, 245–265. Cambridge: MITWPL.

Szabolcsi, Anna. 2012. Compositionality without word boundaries: *(the) more* and *(the) most*. In *Semantics and Linguistic Theory (SALT) 22*, eds. Anca Chereches, Neil Ashton, and David Lutz, 1–25. Ithaca: CLC Publications.

Taraldsen, Knut Tarald. 1991. Two arguments for functional heads. *Lingua* 84: 85–108.

Teleman, Ulf, Staffan Hellberg, and Erik Andersson. 1999. *Svenska Akademiens grammatik [The Swedish Academy Grammar]*, Vol. 1–4. Stockholm: Svenska Akademien/Norstedts.

Vangsnes, Øystein Alexander. 1999. The identification of functional architecture. PhD diss., University of Bergen.

Wagner, Michael. 2005. NPI licensing and focus movement. In *Semantics and Linguistics Theory (SALT) 15*, eds. Effi Georgala and Jonathan Howell. Ithaca: CLC Publications.

Ward, Gregory, and Betty Birner. 1995. Definiteness and the English existential. *Language* 71: 722–742.

Wechsler, Stephen, and Larisa Zlatić. 2003. *The many faces of agreement: Morphology, syntax, semantics, and discourse factors in Serbo-Croatian agreement*. Stanford: CSLI Publications.

Wilkinson, Karina. 1986. The scope of *even*. *Natural Language Semantics* 4: 193–215.

Yee, Charles Woie-Jye. 2011. A lexical approach to presupposition and meaning. PhD diss., Universität Stuttgart.

Zimmermann, Malte. 2015. Scalar particles, presuppositions, and implications for the analysis of contrastive topics: A cross-linguistic investigation of English and Vietnamese. Talk presented at ZAS, Berlin, July 2015.

Zucchi, Alessandro. 1995. The ingredients of definiteness and the definiteness effect. *Natural Language Semantics* 3: 33–78.

Zwicky, Arnold. 1987. Suppressing the Zs. *Journal of Linguistics* 23: 133–148.