

Specificity, Singleton Indefinites, and Intonation

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1. Schwarzschild (2001) proposes a view of specific indefinites as "singleton indefinites". He starts from the assumptions (i) that indefinites express existential quantification, and (ii) that quantifiers have implicit domain restrictions. The idea is to attribute the exceptional scope behaviour of indefinites to properties of the domain: In particular, if the domain of an existential is a singleton, then the scope of the indefinite relative to a higher quantifier is neutralized, giving the (false) impression of wide scope. Suppose, for example, that there was a party at which various movies were discussed.

- (1) (a) Everyone at the party voted to watch a movie that Phil liked.
- (b) A movie that Phil liked was such that everyone at the party voted to watch it.

If Phil likes exactly one movie, then the restrictor of the indefinite has a singleton extension and (1)(a) is (relative to this situation) truth conditionally equivalent to (b). Even if Phil is known to like more than one movie, the indefinite in (1)(a) can still be read as a singleton indefinite, if the quantificational domain is implicitly restricted, e.g., to those movies that were relevant in this situation. So, according to Schwarzschild, any indefinite could be a singleton indefinite. Comparing indefinites to other quantifiers Schwarzschild argues that only indefinites appear to take exceptional scope, because only they can be singletons. Since implicit domain restriction is a general feature of quantification, the singleton account of specificity appears to be more general and therefore superior to scopal approaches.

Though the idea of deriving specificity effects from singleton domains is attractive, there is a problem: The singleton domain approach does not account for the speaker-hearer asymmetry attributed to specific indefinites. Since implicit domain restrictions are commonly held to be given by the context, or common ground, both speaker and hearer should be familiar with the singleton domain restriction, which contradicts the intuition that the speaker, but not the hearer, is able to identify the referent of a specific indefinite (Schwarzschild acknowledges this problem and proposes an ad hoc privacy principle to handle it). Furthermore, it may be questioned whether the restriction to a singleton domain in the case of specific indefinites is solely due to pragmatics or may, at least in some cases, be marked by linguistic cues. In this talk, I will discuss an approach on (a subclass) of specific indefinites which also employs the idea of a singleton but makes crucial use of intonation and can explain the speaker-hearer asymmetry.

2. It is well-known that the interpretation of noun phrases is influenced by intonation. Jäger (1998), for example, investigates accents in weak quantifiers, pointing out that the position and the form of the accent separates the existential reading from the partitive reading. In Umbach (2002) the interpretation of definite noun phrases is shown to be sensitive to accenting distinguishing between a "given" and a "non-given" use (roughly corresponding to the referential/

attributive distinction). Common to these approaches is the observation that the speaker uses intonation to indicate which interpretation of the quantifier or definite she has in mind.

These results suggest that it would be profitable to investigate accenting in indefinites with regard to finding specific indefinites distinguished by a specific intonation pattern. Consider the German example in (2):

- (2) (a) Paulsen, who is the local plumber, has been asked to provide internships for a group of local students:

Paulsen: /EINEN Schüler würde ich \NEHMEN, [aber zwei sind mir zuviel.]
(I would take one student, but two are too many for me.)

- (b) Grün, the owner of the drugstore, has been asked, too. At first, he is reluctant. But then he says:

Grün: /EINEN Schüler würde ich \NEHMEN [nämlich den kleinen Otto Pitzke. Weil doch der Vater mit mir im Verein ist.]
(I would take one (of the) student(s), namely Otto Pitzke...)

The indefinite NPs in both (a) and (b) carry an accent on the indefinite article, which is in German homophonous with the numeral *one*. The indefinite NP in the (a) version is clearly non-specific, the indefinite in the (b)-version, however, is specific. This raises the question of whether there are two readings, each with a topic accent on the determiner.

3. Eckardt (2002) investigates quantifiers in topic position which carry an accent on the determiner, cf. (3) and (4). She argues that the quantifiers in (3) and (4) differ in interpretation: On the "referential reading", in (3), the NPs are partitive relating to subgroups of the previously given plural referent *seven dwarfs*. The subgroups may have the same cardinality, but they must be disjoint, i.e. no dwarf both peels potatoes and roasts sausages. Furthermore, the NP *the others* can be felicitously used in a continuing sentence (*THREE dwarfs were peeling potatoes. The OTHERS were roasting sausages*). Finally, assuming that (3)(a)-(c) are answers to the question *What did the dwarfs do?*, they must be exhaustive, i.e., each of the disjoint subgroups has to be mentioned. Thus, we learn from (a)-(c) that the overall number of dwarfs is seven.

- (3) The [seven] dwarfs were busy cooking dinner.

- (a) /THREE dwarfs were \PEELING POTATOES.
(b) /TWO dwarfs were \FETCHING BEER, and
(c) /TWO dwarfs were \ROASTING SAUSAGES.

On the "denotational reading", as shown in (4), the NPs denote quantifiers of different cardinality. They may, but need not, refer to subgroups of a given group of objects. So this reading need not be partitive. Although the quantifiers have to be of different cardinality, the denotations may overlap, and the NP *the others* will not be felicitous in a continuation (... *I had increasing numbers of red spots: FOUR spots appeared on MONDAY. #The others were visible on Tuesday.*) As answers to the question *How many spots were visible on what day?* (4)(a)-(c) need not be exhaustive and the cardinalities in the answers cannot be added up, i.e., from (a)-(c) we cannot infer the overall number of red spots.

- (4) At different days of my measles, I had increasing numbers of red spots:
- (a) /FOUR spots appeared on \MONDAY,
 - (b) /FIVE spots were visible in \TUESDAY, and
 - (c) /EIGHT spots shone on my face on \WEDNESDAY.

In addition to the characteristics given in Eckardt (2002), the referential and the denotational reading of topicalized quantifiers also differ with respect the scope of negation: Referential topics induce narrow scope, cf. (5)(a), whereas denotational topics induce wide scope, cf. (5)(b).

- (5) (a) The seven dwarf were playing in the garden.
 /MOST dwarfs were \NOT wearing a cap [but two of them did.] "most-not"
- (b) When I had my measles, I had large numbers of red spots.
 /MOST spots were \NOT gone by Friday [but (at least) some of them ...] "not-most"

The facts in (3)-(5) provide evidence that the referential/denotational difference is not just vagueness in the sense that there are simply different context sets used and the referential reading corresponds to one type of context set while the denotational reading corresponds to another. Instead, it seems to be an genuine ambiguity to be accounted for terms of different information structures (one option being that in the case of the denotational reading the NP is not a genuine topic but part of the comment).

4. Applying the referential/denotational distinction to our example in (2), we see that the (non-specific) indefinite in (a) is denotational, while the (specific) indefinite in (b) is referential. In (2)(a) the alternatives considered are overlapping subgroups of the students which are of different cardinality, {one student, two students, three students, ...}, while in (2)(b) there is a subgroup comprising one student, which is contrasted with a disjoint subgroup comprising the others. Here, the alternatives considered are disjoint subgroups of the students: {one student, the other students}, or {one student, another student, the rest} etc. Obviously, indefinites with an accent on the determiner¹, if they are referential topics, qualify as specifics. Let us call them "referential singleton indefinites".

Enc (1991) and Portner & Yabushita (2001) attribute to specific indefinites the properties of partitivity and topicality. (2)(b) has these properties, but since the (a)- version, although clearly non-specific, does too, these criteria cannot be sufficient. Instead, the property which distinguishes (2)(b) from (2)(a) is the disjointness condition on alternatives, i.e., the alternatives evoked by the NP are required to be disjoint subgroups of the plural-antecedent. Disjointness also provides an explanation for the speaker-hearer asymmetry that comes with specific indefinites: To carve up the group antecedent into disjoint subgroups the speaker has to have a partition in mind. That is, she has to be able to separate the singleton cell inhabited by the one she wants to talk about from to the cell comprising the others. By cutting a group into a singleton subgroup and the rest the speaker is able to pick out a referent without using a proper name or a definite description. Thus the speaker can refer to a distinct referent she has in mind, even if she is not able, or not willing, to use a definite description or a proper name. From the perspective of the hearer, however, the information conveyed by the use of a referential singleton indefinite is

¹e.g. German *ein* or English *one, some*. However, English *a*, if accented, contrasts with *the*.

reduced to the existence of a singleton subgroup selected by the speaker, giving the (false) impression of an existential statement.

The claim that referential singleton indefinites qualify as specifics is not meant to be a claim that all specific indefinites are referential singleton indefinites. Consider the standard example in (6):

- (6) (a) Paul adores Greece. This extends to his concept of an ideal wife:
A to B: *[Stell dir vor:] Paul will eine \GRIECHIN heiraten. [Also, ich finde, da geht er mit seinem Griechenland-Tick ein bisschen zu weit.]*
(Imagine that: Paul wants to marry a Greek woman ...)
- (b) During his holidays in Greece, Paul has fallen in love:
A to B: *[Und weisst du schon das Neueste?] Paul will eine \GRIECHIN heiraten. [Er hat sie im Urlaub kennengelernt.]*
(Have you heard the news: Paul wants to marry a Greek woman ...)
- (c) During his holidays in Greece, Paul met a Greek girl group and is full of enthusiasm.
A to B: *[Und du wirst es nicht glauben:] Paul will /EINE Griechin sogar \HEIRATEN.*
(Believe it or not: Paul even wants to marry one (of the) Greek girl(s))

The indefinite *eine Griechin* in (6)(b) is commonly held to be specific/*de re*, as compared to the non-specific/*de dicto* indefinite in (6)(a). There is no difference in intonation, both carrying an accent on the descriptive part. Obviously, the specific/*de re* indefinite in (b) cannot be captured by the notion of referential singleton indefinite. (But note, that it has been questioned whether indefinites understood *de re* can, in general, be identified with indefinites understood as being specific, cf. Ludlow & Neale 1991). Now compare (6)(b) and (c): The indefinite in (c) is a topic (indicated by the raising accent) and has to be referential because the denotational reading would require alternatives of the form one-greek-girl, two-greek-girls etc. which contradict world knowledge (monogamy). At the same time the indefinite in (c) is clearly specific, the speaker indicating that she could identify the girl Paul wants to marry (and, maybe, just forgot her name).

Let us consider another standard example demonstrating scope ambiguity:

- (7) Workshop, final discussion:
- (a) Jeder Teilnehmer fand /EINEN Vortrag \BESONDERS wichtig [... nämlich seinen eigenen].
(Every participant found one talk especially important, [... his own one])
- (b) Jeder Teilnehmer fand /EINEN Vortrag \BESONDERS wichtig [... nämlich den von Barbara Partee].
(Every participant found one talk especially important, [... the talk by Barbara Partee])

Clearly, the scope of the indefinite in the (a)-version has to be narrow and the scope in the (b)-version has to be wide. The difference in scope need not be reflected by accent: In both cases there is a raising accent on the determiner, indicating that the indefinite is either a referential or a denotational topic. In (b) the topic is clearly referential, the speaker contrasting a specific talk with the other talks. In (a) there is also one talk which is contrasted with the other talks, although in this case the partition of the talks - one as against the others - varies with respect to the participants. Apparently, referential topic singletons may also have narrow scope with respect to higher quantifiers. This finding nicely combines with Heusinger's (2001) characterization of

specificity as the "guarantee" of reference by either the speaker or some individual introduced in the discourse. Employing the notion of referential topic singletons we can elaborate on this idea: It is not the existence of the referent that is guaranteed (note, that existence is already given by the fact that the referent is a (singleton) subgroup of a given antecedent). Instead, it is the partition of the antecedent group into a singleton cell and the rest, that is guaranteed: Either the speaker or some other individual guarantees that she is able to pick the referent out of a given group.

To conclude, referential topic singletons seem to constitute an interesting subclass of the phenomena subsumed under the notion of specificity. To explore the range of referential topic singletons within the area of specificity phenomena, data on intonation are required. For this reason we set up an experiment for German indefinites to check accenting in the case of wide/intermediate/narrow scope readings, in particular in cases where the wide scope reading does not entail the narrow scope reading (cf. Abusch 1994). Unfortunately, preliminary tests showed that subjects are reluctant to interpret such sentences and argue that the intended reading could easily be expressed by changing the word order. The experiment is still under construction.

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