

EXCEPTIONAL-SCOPE INDEFINITES AND DOMAIN RESTRICTION*

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Abstract

This paper argues that the apparent exceptional scope behaviour of indefinites can be accounted for just by supposing a unitary analysis of indefinites as existential quantified noun phrases. It is argued that it is consistent with the meaning and use of quantificational indefinite noun phrases that, on occasion, their domain is implicitly contextually restricted by an identifying condition which the speaker has in mind. In order to explicate what the idea of having such things ‘in mind’ might amount to, some proposals in Perry (2001) are drawn on. The account is extended to deal with intermediate scope effects.

1 Introduction

This paper argues that the apparent exceptional scope behaviour of indefinites can be accounted for just by supposing a unitary analysis of indefinites as existential quantified noun phrases. It is argued that it is consistent with the meaning and use of quantificational indefinite noun phrases that, on occasion, their domain is implicitly contextually restricted by an identifying condition which the speaker has in mind. In order to explicate what the idea of having such things ‘in mind’ might amount to, some proposals in Perry (2001) are drawn on. The account is extended to deal with intermediate scope effects. Also it is argued that the problems raised by Chierchia (2000) for similar accounts with negative contexts can readily be overcome as a matter of further contextual restriction of the interpretation of these indefinites. In as far as the use of the more ad hoc free \exists -closure mechanism is motivated by ‘non-specific’, intermediate scope readings in negative contexts, it is argued that our quantificational account is better motivated. We also suggest that some apparent conceptual problems with our main idea can be overcome by some standard (optimality-style) pragmatic considerations.

2 The Referential-Attributive Distinction with Indefinites

Following Donnellan’s work with definite descriptions, Fodor & Sag (1982) offer an account of the scope properties of indefinites in terms of a referential/attribution ambiguity. Some motivation comes from examples like (1):

- (1) a. Every teacher heard a rumour that a student of mine had been called before the Dean.
b. When an uncle of John’s dies, John will become an earl.

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F&S observed that indefinites seem to take scope in defiance of usual syntactic constraints on scope movement - such as the NP-island constraint and the subordinate clause constraint which would apply in (1). They also claimed that indefinites could not take intermediate scope. They proposed that indefinites are ambiguous between a referential (and hence ‘scopeless’) and an in situ quantificational interpretation.

The problem was that indefinites do seem to take intermediate scope - even where scope should be blocked by syntactic constraints. This is illustrated by (2)a which can be construed according to the gloss in (2)b. (Note, henceforth, the activity of studying every proposed analysis for a problem x , will be referred to as ‘giving x the once-over’.):

- (2) a. Every linguist has studied every analysis that has been proposed for some problem.
 b. $\forall x[\text{linguist}(x) \rightarrow \exists z[\text{problem}(z) \wedge \forall y[\text{analysis_of}(z)(y) \rightarrow \text{studied}(y)(x)]]]$

3 Kratzer’s Modified Referential Account of Specific Indefinites.

In the spirit of Fodor & Sag, Kratzer (1998) proposes that the intermediate scope in examples like (2) is an artefact of indefinites being interpreted as referential, and that indefinite noun phrases are ambiguous between these ‘referential’ expressions and existential generalised quantifiers.

In particular, the proposal is that the relevant construal of (2) be analysed as in (3)

- (3) Every linguist has studied [every analysis that has been proposed for [some _{f,x} problem]]

Here *some _{f,x}* is a complex expression consisting of a variable, f , over skolemised choice functions (functions from individuals to partial choice functions) and its argument - also a variable, x . The function variable has its value fixed by context. The individual variable is bound in this case, although it’s value can also be fixed by context - as with (1)b above.

The result is that (2) is understood as (4) where f is some contextually specified function:

- (4) $\forall xy[\text{linguist}(x) \wedge \text{analysis_of}(f(x)(\text{problem}))(y) \rightarrow \text{studied}(y)(x)]$

The perspectival nature of ‘some’ is motivated by considering an alternative less complex analysis according to which ‘some’ is just a variable over partial choice functions and just supposing that the dependency on the subject quantifier arises through whatever means would account for the dependencies in (5). Each example can be construed so that the indirect object noun phrase is dependent on the subject quantifier - as suggested by the glosses below:

- (5) a. Every hostess received a gift from every guest
 $\forall xy[\text{hostess}(x) \wedge \text{guest_of}(x)(y) \rightarrow \exists z[\text{gift}(z) \text{ received_from}(y)(z)(x)]]$
 b. The hostesses received gifts from the guests.
 (stronger than cumulative reading)
 c. No hostess received a gift from a guest
 (there is a construal which is weaker than unrestricted reading which would be

true even if hostess **a** received a gift from a guest of hostess **b** and could be glossed as, “No hostess received a gift from one of her guests”)

But, even though we can motivate an (optional) implicit variable as part of the contextual restriction of descriptions (as in (5)b,c) and marry this to a simple choice function account of specific indefinites, Kratzer argues that this won't do the job required. To see this, note that the logical form for (2) on this simpler analysis would be as in (6):

- (6) $\forall xy[\text{linguist}(x) \wedge \text{analysis_of}(f(\text{problem}(x)))(y) \rightarrow \text{studied}(y)(x)]$
 (where *problem* expresses some contextually specified relation - eg ‘problem considered by’)

Unless *problem* in (6) necessarily pairs just one problem with each linguist in the domain, the truth-conditions of (6) will differ from (2) - because it is always possible that two linguists are paired with the same non-singleton set of problems (and hence the value of $f(\text{problem}(x))$ would be the same) and these linguists give the once-over to different problems making (6) false while (2) would still be true.

Of course, if *problem* in (6) necessarily paired linguists with a singleton set then this particular problem may not arise. Kratzer doesn't pursue an analysis along these lines, instead she adopts the skolemised choice function analysis mentioned above. Her motivation for this choice seems to come from some observations about ‘a certain’ inspired by Hintikka (1986).

4 ‘A certain’

The English expression, ‘a certain’ has certain interesting properties. In order to discuss these properties, it will be necessary to make use of the idea that a speaker has an individual (or property or relation) in mind when using an indefinite. While this notion makes intuitive sense and while discourse on specifics often coherently proceeds whilst employing this notion, there are some who would question its respectability when it comes to semantic analysis. For those of such a sceptical bent, the discussion which follows may not seem at all illuminating to begin with. However, the analysis of ‘a certain’ in terms of ‘having in mind’ which will be proposed later does give some semantic respectability to this folk notion and ground the following intuitive discussion.

Let us first consider (7):

- (7) A certain man was walking in the park.

(7) normally implies either that the speaker has in mind an individual which she thinks the audience wouldn't have antecedently been able to identify or that she is not in a position to divulge any more of the identity of the person she has in mind. However, sometimes a speaker may use ‘a certain’ and mean to implicate that her audience knows who she has in mind. This often happens in jokey situations:

- (8) {*John and Mary are having an affair which they believe is secret. But, two of their office-mates, Bill and Sue, have together found out about this ‘secret’ affair.*}

Bill (to Sue): I hear that John left the staff party with a certain female colleague last night.

What is also interesting about ‘a certain’ is that the truth of (7) depends on how things are with this speaker’s referent. In particular, (7) would be false if the speaker’s referent were not a man or walking in the park even if other men were walking in the park at the time. This contrasts with other so-called specific uses of indefinites as in (9).

(9) A man was walking in the park. He was whistling.

Following Stalnaker (1998), we know that the truth-conditions of the first sentence in (9) do not involve the speaker’s referent even though this individual has to be made salient by the utterance in order that the pronoun in the second sentence can make reference to it. Given the difference in truth conditions between (7) and the first sentence in (9), ‘a certain’-noun phrases could be referential in the sense of Fodor & Sag or of Kratzer.

Kratzer proposes that ‘a certain’ be analysed in the manner of the specific interpretation of ‘some’ in (2). That is, as a complex of a variable over skolemised choice functions and a variable argument of that function. So, the proposal for both is that the function variable is assigned a value by context while the other variable can be similarly assigned a value or bound. There are however some problems with this proposal.

The first problem has to do with presuppositions. Normally expressions which are context-dependent or perspectival and which have been given analyses in terms of variables requiring contextual assignment (‘he’, ‘local’ etc) come with a pragmatic presupposition that the audience can identify the contextually specified value of the variable. If this presupposition fails, infelicity ensues. ‘A certain’, by contrast normally functions to make reference to an individual which it is presupposed the audience could not antecedently identify.

Secondly, Kratzer’s proposal underspecifies the meaning of ‘a certain’. When we consider cases like (7) on Kratzer’s analysis, we can legitimately wonder what value context assigns to the individual variable as it is not intuitively obvious. Kratzer proposes that when this variable is not bound, the context assigns the speaker as its value. The assumption seems to be that in such cases the value assigned by context to the SCF variable, f , is such that it will yield the speaker’s referent as its value when applied to the restrictor set. But there is no reason given, nor does there seem to be any good one, why this any of this should be. According to Kratzer’s proposal, context could assign the individual a value other than the speaker and, independently, it could assign to f a function which does not choose the speaker’s referent in the non-bound case. But context never makes such assignments. This seems to be part of the meaning of ‘a certain’.¹

¹ Hintikka (1986) proposal differs to Kratzer’s and is not so problematic regarding some of the issues just discussed. Hintikka’s paper will not be discussed here other than to observe that the main idea is also problematic. According to Hintikka, ‘a certain’-noun phrases are existential but they always take scope (‘have priority’) over epistemic operators. There seem to be cases where this will not work. Consider that (i) seems perfectly coherent and sensible with an intermediate scope reading:

The third problem derives from Kratzer's (and Hintikka's) suggestion that where 'a certain' could be dependent on a c-commanding quantifier, this reading won't be obtained unless there is a 'natural function' (such as the one in (10) which pairs men with their mothers) which the audience can recover. Note that the proposed requirement would then contrast with the non-quantificationally dependent case where there is a presupposition that the audience cannot recover a natural description.

(10) According to Freud, every man secretly loves a certain woman - his mother.

This constraint is motivated by considering (11) which, it is argued, lacks the bound-into construal:

(11) Every one of these young men hopes to marry a certain woman.

This claim seems to be too strong. Although perhaps the non-bound-into construal is favoured for (11), the bound into construal does seem to be available. Consider anyway (12)

- (12) a. In the Zambian army, every soldier keeps certain items in his footlocker.
 b. {*Said by an anti-theoretical psychiatrist like RD Laing*} I don't think much of Freud and his type but I do admit that most problems my patients have stem from a certain childhood experience.

In both of these examples, there can be a bound construal and in each case we can understand the speaker to presuppose only that the individuals in the binding domain are paired with an individual (or collection) which the speaker has in mind and no more.

Of course, there can be a richer quantificationally dependent construal of the noun phrase containing 'a certain' according to which the speaker has some particular relation in mind. For example, in the right kind of context we may understand a speaker of (12)a (perhaps in contrast to (12)b) to have in mind a natural function which pairs Zambian soldiers with lockerable items. (Perhaps the speaker has just read the Zambian army rule book which states what must be kept in footlockers). As such, there may be an implication (a pragmatic presupposition) that the speaker has some such natural relation in mind.

Note that presupposing that the speaker has some natural relation in mind is different to there being a presupposition that the audience knows what that relation is. Even if the speaker has some 'natural' relation in mind we often only recover what this is exactly if it were somehow implicated in a jokey way (as with (8) above and some uses of (13)a below) or if the speaker adds some more information as an afterthought:

- (13) a. According to Freud, every man secretly loves a certain woman.
 b. Every one of these young men hopes to marry a certain woman - his childhood sweetheart.

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- (i) I doubt that John thinks his boss prefers a certain type of hors d'oeuvres. Otherwise he wouldn't have prepared twenty different varieties.

One point about (13)a is that, if said to someone who only knows that Freud wrote about human behaviour, it might imply that there is a particular ‘natural’ function which the speaker has in mind and which pairs each man with a secret love.

By contrast, the atheoretical, RD Laing-style psychiatrist in (12)b would most likely be basing his statement on the bare facts of his encounters and it would most likely be assumed that he has in mind no particular ‘natural’ relation which pairs types of experience with types of patient. As such, we are less inclined to make any such presuppositions in this case.

So, contrary to Kratzer, the generalisation about quantificationally dependent noun phrases containing ‘a certain’ seems to be that, as with the non-dependent cases, the basic meaning suggests that the interpretation is to be determined in relation to an individual the speaker has in mind, but here it is relative to each individual in the binding quantifier’s domain. That is, without any further presuppositions, (11), would be understood according to the gloss in (14):

- (14) $\forall x[\text{young man}(x) \rightarrow \exists y[\text{R}(x)(y) \wedge \text{woman}(y) \wedge \text{hopes_to_mary}(y)(x)]]$
 $\{R(x)(y) \text{ is approximately } \textit{is_the_individual_the_speaker_has_in_mind_for}(x)(y)\}$

The functional pairing of the individuals in the domain and those the speaker has in mind does not have to be ‘natural’ in any sense.

Sometimes it is implied that speaker does have some natural function in mind according to which the individuals they have in mind are paired with individuals in the domain of quantification:

- (15) According to this new psychological theory, every man secretly loves a certain woman - but it is not his mother.

Other times it is implicated in addition what that function is - cf (8).

5 Proposal About ‘a certain’

I propose that noun phrases containing ‘a certain’ are just existential, quantificational noun phrases and that ‘certain’ is just a predicate restricting the quantification. The semantic rule for ‘certain’ makes reference to a feature of the context - the utterance of the noun phrase it figures in:

- (16) The semantic rule for *certain_u* makes reference to the utterance, *u*, of the noun phrase in which it is contained and says that *certain_u* expresses the property represented by the *identifying idea*, *i_u*, involved in the representation of the speaker’s ground for this utterance.

The idea of *identifying ideas* comes from Perry (2001) which posits mental particulars representing individuals and their associated properties. The mental particulars representing individuals are called *notions*. *Ideas* are mental particulars which represent properties these individuals have. *Identifying ideas* are ideas which represent identifying properties (i.e. properties which necessarily are uniquely instantiated if at all). Ideas are associated with notions in files. Files result from what Perry calls the ‘detach and recognise game’ whereby buffers containing

notions of, and associated ideas about, individuals are retained beyond perceptions of that individual.

Notions are canonically born of perceptions - either of individuals or references (acts of referring). Intersubjective notion networks build up through communication. Although Plato's notion of Socrates is borne of his perceptions of Socrates, Perry's notion of Socrates is born of perceptions of texts Plato wrote containing references to Socrates. There are a variety of ways in which notion networks can end not with an individual but what Perry calls a 'block'. This can be through misperceptions (of individuals or utterances) and a variety of other means (including the free creation of notions).

One condition on a functioning file is that it contain at least one identifying idea. Sometimes the only identifying ideas for a file are obtained through a speaker saying something like, "I met an interesting woman last night". In that case one identifying idea will be that of whoever stands at the end of the notion network in which the speaker's notion of the individual introduced is embedded. This latter point illustrates a feature of Perry's proposal, as it is being adopted here. The point is that something like notions, (identifying) ideas and notion networks figure in our folk semantics. Here it is being assumed that folk ideas about notions and ideas are underpinned by the fact that there really are such mental particulars which carry information (or, at least, content) about objects and properties. However, independently of that issue, we can find motivation for the proposal that notions, ideas and such do play a role in folk semantics (other than in the semantics for 'a certain') by considering some problems with current accounts of Hob-Nob examples.

It is well known that Hob-Nob examples (as in (17)) carry implications about how Hob and Nob think about the witch in question without the speaker or audience believing in witches, without Hob and Nob having ever met each other and without them thinking of the witch in the ways described in the other attribution (as the killer of Mary's pig or John's cow).

(17) Hob thinks a witch killed John's cow and Nob thinks she killed Mary's pig.

That is, even with sceptical conversants, an utterance of (17) implies that there is an identifying property such that in Hob's epistemic alternatives the non-existent witch has it and in Nob's epistemic alternatives his non-existent witch has it. Neale (1990) assuming a kind of pragmatic E-type account suggests that the identifying property in question could be something like, *being the local witch*. Van Rooy's (1997) analysis suggests just that there is such a property (known to the speaker). But neither of these suggestions are quite right. To see this, consider the scenario where Hob comes upon John's cow mysteriously dead and he has certain beliefs about mysterious bovine deaths which lead him to conclude that only a witch could have caused the death. Hob also believes that at any one time, there can be at most one witch operating in an area. Thus he forms the belief that there is a unique witch in the area and this witch killed John's cow. At the same time, Nob goes through the same kind of process upon his discovery of Mary's pig dead. That is, Nob comes to believe that there is a unique witch in the area which caused the death of this pig. Hob knows nothing of Nob and Mary's pig while Nob knows nothing of Hob or John's cow. Moreover, there has been no public discussion of any sort of mysterious deaths or of witches. We could describe this scenario using (18):

- (18) Hob believes that there is one and only one witch in region X who is such that she killed John's cow. Nob believes that there is one and only one witch in region X who is such that she killed Mary's pig.

However, we could not describe this scenario using the Hob-Nob sentence, (17). What is missing from our scenario, it seems, is some kind of link between Hob's imaginary witch and Nob's imaginary witch which is more than a shared identifying property. For instance, if we add to the above scenario a tv news report seen and believed by both Hob and Nob about an active witch, then we could acceptably report on the scenario using the Hob-Nob sentence. It seems that what is being imputed by Hob-Nob sentences with sceptical conversants is that there is a notion network through which Hob and Nob could identify their respective imaginary witches. That is, there is a notion network, NN, which is such that, (under some mode of presentation) Hob believes that the individual standing at the end of NN is the witch that killed John's cow and (under some mode of presentation) Nob believes the individual standing at the end of NN is the witch that killed Mary's pig.

We shall not be pursuing a full analysis of intentional identity statements in this paper. The above example, if it's analysis is on the right track, is just meant to independently motivate the idea that notions, ideas and so on do play a role in our ordinary intuitions about meaning.

Returning now to the proposal in (16), we should note that it is only appropriate for uses of 'a certain' in examples like (7) where there is no implicit bound dependency. Something more needs to be said about cases like (15). In contrast to Kratzer's proposal, I will not posit a covert variable in the form of 'a certain' to be bound or assigned away by context. Rather, I would advocate a general lexicalist treatment of this kind of binding dependency. This treatment is set out in Breheny(1999, 2003) and is based on ideas of Jacobson's (1995) variable-free semantics. The details of that treatment are not all that relevant here, suffice to say that the possibility that 'certain' is interpreted as dependent on a C-commanding quantifier stems from lexical operations (as in a something like a generative lexicon framework). As far as sentence-level logical semantics is concerned, we can think of 'certain' as simply being ambiguous between the meaning characterised in (16) above and that characterised for *certain*² in (19) below. (19) presumes that the two-place reading is only involved where the second argument is bound by a C-commanding quantifier:

- (19) The semantic rule for *certain*²_u makes reference to the utterance, u, of the noun phrase in which it is contained and expresses the relation which holds between members of the binding domain, y and individuals x such that x is the individual which instantiates the identifying property represented by the identifying idea *i*_{u,y} which the speaker associates with y in her grounds for the utterance.

6 Implicitly Specific Indefinites

Like Kratzer, I propose that indefinites which do not contain 'certain' can be understood as if they implicitly do. But here, it will be supposed not that 'some' is ambiguous, but that, as with any quantified noun phrase, there is implicit contextual restriction of the appropriate type. So the example in (1)b would be treated by supposing that the quantificational indefinite noun phrase is implicitly restricted with *certain*_u, as suggested by (20):

(20) $\exists x[\text{certain}_u(x) \wedge \text{uncle_of_john}(x) \wedge \text{die}(x)] \rightarrow \text{become_earl}(\text{john})$

It is worth noting again that such implicit restriction of noun phrases can include material dependent on other quantifiers - as where, in (21), the object noun phrase is understood as ‘every bottle he was given’:

(21) Every bad boy broke every bottle

Although nothing in the analysis of (2) discussed below turns crucially on how this phenomenon is treated, I would not advocate a approach whereby noun phrases contain covert variables², but a lexicalist, variable-free approach as discussed in the above references. What is important here however is simply that we can motivate an analysis of the noun phrase [*some problem*] in general such that it is understood as $\lambda y \lambda P. \exists x[\text{problem}(x) \wedge R(y)(x) \wedge P(x)]$ where R is fixed through some contextual process.

The example in (2) would then have certain_u^2 implicitly restricting the indefinite with the second argument dependent on the subject noun phrase. That is, where the intermediate scope construal of (2) arises, [*some problem*] is understood as $\lambda y \lambda P. \exists x[\text{problem}(x) \wedge \text{certain}_u^2(y)(x) \wedge P(x)]$. This would result in (2) being understood as in (22):

(22) $\forall x[\text{linguist}(x) \rightarrow \forall y[\text{analysis}(y) \wedge \exists z[\text{certain}_u^2(x)(z) \wedge \text{problem}(z) \wedge \text{proposed_for}(z)(y)] \rightarrow \text{studied}(y)(x)]]$

This says that every linguist has given the once-over to the problem which the speaker associates with that linguist. This is the intermediate scope reading.

So if indefinites are simply always existential quantified noun phrases, we could still get the required extra-ordinary scope understanding of (1) and the intermediate scope construal of (2) without any movement.³

7 Problems with Negative Contexts

Although different in many ways from Kratzer’s referentialist proposal, there is agreement here with Kratzer that these exceptional scope properties of indefinites are due to a construal according to which speakers’ referents figure in the evaluation of what is expressed.

Chierchia (2001) argues that there is a problem with this type of account when it comes to negative contexts. Consider (23):

(23) Not every linguist has studied every analysis that has been proposed for some problem

² See Stanley & Szabo (2000) for an example of this kind of treatment.

³ Of course, it is being assumed here that as QNPs, indefinites can undergo movement, but only where movement licensed.

This has an interesting ‘non-specific’ intermediate-scope reading which we might gloss as in (24):

$$(24) \quad \neg\forall x[\text{linguist}(x) \rightarrow \exists z[\text{problem}(z) \wedge \forall y[\text{analysis}(y) \wedge \text{proposed_for}(z)(y) \rightarrow \text{studied}(y)(x)]]]]$$

That is, (23) has a reading which would be false in a situation where every linguist has given some problem or other the once-over.

Addressing Kratzer’s referentialist proposal, Chierchia argues that it could not account for the facts in this case since the truth-conditions of the reading in question do not seem to depend in any way on how things are with some particular problem which the contextual function would pick out relative to a linguist. Let us first remind ourselves of Kratzer’s analysis of this:

$$(25) \quad \neg\forall xy[\text{linguist}(x) \wedge \text{analysis_of}(f(x)(\text{problem}))(y) \rightarrow \text{studied}(y)(x)]$$

To illustrate imagine **circumstance 1** (the systematic linguist case):

Linguist A gives cross-over the once-over
 Linguist B gives long distance anaphora the once-over
 Linguist C gives donkey anaphora the once-over.

If these are our linguists then (23), on the construal in question, is false - regardless of any other features of any context which would give rise to this construal.

Chierchia notes that there is no presupposition with (23) (on the construal in question) according to which linguists give just one problem the once-over, if any. He then suggests that there is no ‘natural’ restriction on a function which context provides which would deliver this result. He considers the following types of restrictions:

- (26) a. for any linguist x , $f_1(x)(\text{problem})$ chooses a problem x has considered
 b. for any linguist x , $f_2(x)(\text{problem})$ chooses a problem that intrigued x

None of these are strong enough since f could choose a problem linguist A does not give the once-over to, but he may have given other problems (from those that he has considered, or that have intrigued him etc) the once-over. So (25) comes out true but (23) is false.

The proposal in this paper has to face this challenge as well since it is being suggested that these intermediate readings are obtained by making the indefinite specific and hence the truth-conditions depend on a particular problem:

$$(27) \quad \neg\forall x[\text{linguist}(x) \rightarrow \forall y[\text{analysis}(y) \wedge \exists z[\text{certain}_u(x)(z) \wedge \text{problem}(z) \wedge \text{proposed_for}(z)(y)] \rightarrow \text{studied}(y)(x)]]]$$

Contrary to Chierchia’s claim, however, there are in fact many natural restrictions which would

do the job required. Each of these restrictions which would do the job have something in common. We can represent this by specifying a necessary condition on *certain*_u² in these cases:

$$(28) \quad \forall x,y \square \text{certain}_u^2(x)(y) \rightarrow ((\exists z[\text{problem}(z) \wedge \forall w[\text{analysis}(w) \wedge \text{proposed_for}(z)(w) \rightarrow \text{studied}(w)(x)]]]) \rightarrow (\forall v[\text{analysis}(v) \wedge \text{proposed_for}(y)(v) \rightarrow \text{studied}(v)(x)]))$$

This says: If *y* is what is associated in the speaker's mind with *x*, then if *x* has given any problems the once-over, *x* will have given *y* the once-over.

I propose that where the construal of (23) in question (glossed in (24)) is obtained, this information about the kind of problem the speaker has in mind for each linguist is pragmatically presupposed. This makes the contextually enriched truth-conditions of (27) the same as (24). To see this, consider again circumstance 1 which makes (24) false. Looking at (27) and assuming (28), we see that if we are in a world where all linguists have been systematic, then *certain*_u² will pair all linguists with problems they have given the once-over to - so (27) must be false in this kind of circumstance.

Let's look at a circumstance where Linguist A has been unsystematic. Then we know from (28) that *certain*_u² will not pair Linguist A with a problem she has given the once-over to. So (29) is false and this makes (27) true.

$$(29) \quad \forall y[\text{analysis}(y) \wedge \exists z[\text{certain}_u^2(A)(z) \wedge \text{problem}(z) \wedge \text{proposed_for}(z)(y)] \rightarrow \text{studied}(y)(A)]$$

Things go the same way in other downward entailing contexts:

- (30) a. Every linguist who has studied every analysis which has been proposed for some problem has no social life.
 b. No linguist has studied every analysis which has been proposed for some problem.
- (31) a. $\forall x[\text{linguist}(x) \wedge \forall y[\text{analysis}(y) \wedge \exists z[\text{certain}_u^2(x)(z) \wedge \text{problem}(z) \wedge \text{proposed_for}(z)(y)] \rightarrow \text{studied}(y)(x)] \rightarrow \text{has_no_social_life}(x)]$
 b. $\forall x[\text{linguist}(x) \rightarrow \neg \forall y[\text{analysis}(y) \wedge \exists z[\text{certain}_u^2(x)(z) \wedge \text{problem}(z) \wedge \text{proposed_for}(z)(y)] \rightarrow \text{studied}(y)(x)]]$

In the 'no linguist' case, it is false if any linguist has given any problem the once-over, as required. In the restrictor of 'every', 'no' etc, we are quantifying over linguists who have given at least one problem the once-over because we are quantifying over linguists who have given their 'certain problem' the once over.

There are other cases where there is apparent intermediate scope. Consider that both (32)a and b can be construed as per the gloss in (32)c⁴:

⁴ That both (32)a and (32)b give rise to a construal glossed in (32)c is problematic for Schwarz's (2001) ambiguity proposal according to which the non-specific reading of (23)

- (32) a. It's not the case that if an uncle of John dies, John will be rich
 b. It's not the case that if a certain uncle of John dies, John will be rich
 c. $\neg(\exists x \text{uncle_of_john}(x) \wedge [\text{die}(x) \rightarrow \text{rich}(j)])$

In both cases, the relevant analysis would be:

- (33) $\neg(\exists x[\text{certain}_u(x) \wedge \text{uncle_of_john}(x) \wedge \text{die}(x)] \rightarrow \text{rich}(j))$

The relevant presupposition would be:

- (34) $\forall x \square \text{certain}_u(x) \rightarrow (\exists y[\text{uncle_of_john}(y) \wedge (\text{die}(y) \rightarrow \text{rich}(j))] \rightarrow (\text{die}(x) \rightarrow \text{rich}(j)))$

In general, if we have the specific indefinite inside some operator *O...a certain F* and this whole construction is in some downward entailing environment *neg O...a certain F* then we can always construct such an MP for 'certain' so that we can have the intermediate scope effect without movement. Suppose $\phi(x)$ is the result of extracting *a certain F* from inside the operator, *O*, then the MP in general looks like (in the one place case):

- (35) $\forall x \square \text{certain}_u(x) \rightarrow (\exists y[Fy \wedge \phi(y)] \rightarrow \phi(x))$

To sum up, by presupposing what this kind of MP says about what the speaker has in mind, we can always obtain the apparently non-specific or 'general' construal of specific indefinites in negative contexts without movement - or any free \exists -closure mechanisms. When these presuppositions are not made, we expect a specific reading which is unlike that represented in (24). Although I believe that (23) is open to such a construal, this is perhaps clearer with (36) - adapted from Schwarz (2001). We imagine this sentence uttered where the teacher recommends a number of text-book chapters to all the class-members but hands out personal assignments to each student based on just one text-book chapter:

- (36) Not every student read every section of a text-book chapter I recommended. Those who didn't will not be able to answer all the questions on their assignment.

So in the absence of the extra presupposition about the speaker's grounds, we get a specific reading. In the presence of such a presupposition, we get the general reading in negative contexts.

Given that the specific reading is available in negative contexts - in addition to the general reading - it seems that proposals such as those of Chierchia which would account for (23) by employing fairly ad hoc \exists -closure mechanisms still need to build in the ability to contextually restrict this quantification down to the singleton set containing the speaker's referent - relative to a linguist - at least in cases like (36). But, in as far as that kind of implicit contextual restriction

glossed in (24) is obtained by free \exists -closure mechanisms while specific readings such as are available for (36) are obtained by a Kratzer-like referential treatment. But Schwarz's account assumes that indefinites containing 'a certain' never get the non-specific reading, contrary to the quite robust intuition that (32)b does have such a reading. Thanks to Gerhard Jaeger for drawing my attention to these examples.

has to be allowed in some cases, then we can do the job just with a unitary treatment of indefinites as quantificational and allowing for extra contextual presuppositions.

8 Pragmatic Issues

In this section, we will take up some issues which our treatment of specifics raises.

It is being proposed that the exceptional scope of (37)a is accounted for according to (37)b where the contextually supplied restriction is an identifying property.

- (37) a. When an uncle of John's dies, John will become an earl.
 b. $\exists x[\text{certain}_u(x) \wedge \text{uncle_of_john}(x)] \rightarrow \text{become_earl}(\text{john})$

In as far as such 'token-reflexive' contextually supplied restrictions are possible for noun phrases in general, our first issue concerns the question: Why are definite descriptions not also allowed to be restricted by the same kind of property?

For instance, in a situation where there are two tables covered with books and the speaker utters (38)a (infelicitously), why can we not obtain a contextual restriction as in (38)b?

- (38) a. The table is covered with books
 b. $\exists x[\text{certain}_u(x) \wedge \text{table}(x) \wedge \text{covered_with_books}(x)]$

We could suppose that the answer to this lies in the conventional presuppositional properties of definites - say, definites conventionally presuppose that the audience could identify a suitable restriction *independently* of the utterance of the definite. But this is not right as a consideration of bridging illustrates:

- (39) When John checked the picnic supplies he found that the cake was squashed.

A better explanation might come from considering the practices of English speakers with regards *indefinites*. Let us assume it is pragmatically presupposed that indefinites are normally used in assertive contexts to introduce individuals where the audience could recover no identifying property other than *being the speaker's referent*. Then this presupposition is enough to give rise to infelicity of (38) in as far as the use of a definite to do that job would not be optimal.

The second issue is as follows: If identifying properties are allowed to restrict indefinites, then why are indefinites not used to talk about identifiable entities?

To answer this question, we need to look at the presuppositions for definites. Suppose there is a *conventional* presupposition associated with definites which just says that the audience can recover an identifying property. Then in languages which have the option available to mark descriptions in this way, this option would always be used as it more optimally realises the relevant intention. (viz to make reference to an individual under a recoverable description).

The third issue concerns the fact that sometimes indefinites are used to introduce a speaker's referent for future anaphoric reference, as in (9):

- (9) A man was walking in the park. He was whistling.

However, it is widely agreed that the first sentence in (9) does not express a proposition which depends in any way for its truth on the speaker's referent. Rather, pragmatic accounts of such discourses have to suppose that some assumption (as in (40)) about the speaker's grounds is introduced *implicitly* into the context (see Stalnaker 1998, Breheny 2001, 2002)

- (40) $\exists x[sg_u(x) \wedge \text{believe}(\text{speaker}, \text{man}(x) \wedge \text{walk_in_park}(x))]$
 { sg_u expresses the property of being the individual on whose file the speaker would justify her utterance of the indefinite u }

Why is this so? Why do we not just have the relevant restriction as part of the proposition expressed (as in (41))?

- (41) $\exists x[sg_u(x) \wedge \text{man}(x) \wedge \text{walk_in_park}(x)]$

This can be explained with reference to a generalisation about choosing stronger interpretations:

- (42) Where an expression α contains contextual parameters or whose interpretation is otherwise underspecified by its meaning, and where it would be equally plausible and coherent in the context for α to be interpreted as a_1, a_2, \dots, a_n , then the interpretation which gives rise to the strongest *justifiable* proposition expressed should be chosen. (Where justification is on the grounds of relevance).

This generalisation is importantly different to the often evoked 'strongest meaning hypothesis' which makes no reference to justification (see Winter 2001). To see that it is the strongest *justifiable* meaning which is selected, consider (43)a,b below. In these examples, the predication is understood as only partial (not maximal) even though there is no reason to do with plausibility, coherence or typicality why the maximal reading should not be attributed to the speaker. There is however, no reason in the context why the maximal should be attributed to the speaker either, since in each case, it is sufficient to know that the predicate applies to only some to satisfy local expectations of relevance:

- (43) a. Mary cannot come to work today. Her children are off school.
 b. Johnny was naughty at the zoo today. He fed the monkeys chocolate.

In the case of (9), note that whether or not the first sentence is understood as in (41), we have to presuppose that the speaker has specific grounds. That is, we have to presuppose (40). So, the speaker's referent would be made salient/available either way. Given that this is the case, there is no justification in assuming that it is intended that the indefinite has the stronger interpretation since the only purpose of presupposing the speaker has an individual in mind is to provide a referent for the pronoun in the second sentence.

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