LICENSING BY MODIFICATION: THE CASE OF POSITIVE POLARITY PRONOUNS*

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1 Introduction

1.1 Generic readings and unselective binding

Carlson (1981) observed that English indefinite pronouns (e.g. *someone*) can only get generic readings when modified by a relative clause.

(1) a. Someone should be punctual. # generic
b. Someone who respects others should be punctual. ✓generic

As Carlson points out, this pattern is reminiscent of the licensing constraints on free-choice *any*. In the absence of an appropriate modal environment, free-choice *any* is only licensed if modified by a relative clause, in which case it is said to be subtrigged (LeGrand, 1975).

(2) (Last night, at a party,)
a. *John talked to anyone.
b. John talked to anyone who would listen.

The behavior of indefinite pronouns in (1) contrasts with that of *a NP* indefinites, which can typically have generic readings, and *some NP* indefinites, which never can. For both *a NP* indefinites and *some NP* indefinites, relative-clause modification has no effect on the availability of generic readings.

(3) a. A person should be punctual. ✓gen
b. A person who respects others should be punctual. ✓gen

(4) a. Some person should be punctual. # gen
b. Some person who respects others should be punctual. # gen

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Genericity is not a crucial aspect of the contrast. Under (overt) adverbial quantifiers, the same indefinites that can participate in generic readings can be unselectively bound and acquire (something akin to) universal force (5)–(7). Table 1 summarizes these facts. To the best of my knowledge, the extant literature offers no account of the subtrigging effect observed with indefinite pronouns, or of the distribution of the three patterns in Table 1.[1]

(5) a. Someone is always / usually on time. # ∀
'Everyone is always / usually on time'

b. Someone who respects others is always / usually on time. ✓∀
✓'Everyone who respects others is always / usually on time'

(6) a. A man is always / usually on time. ✓∀

b. A man who respects others is always / usually on time. ✓∀

(7) a. Some man is always / usually on time. # ∀

b. Some man who respects others is always / usually on time. # ∀

	generic readings / unselective binding	
	subtrigged	not subtrigged
indefinite pronouns	✓	×
a NP	✓	✓
some NP	×	×

Table 1: Primary data to be explained

English indefinite pronouns are well known positive polarity items (PPIs), as illustrated in (9). For the purposes of the discussion in this paper, only the property of PPIs stated in (8) need concern us.

(8) In monoclausal structures, a positive polarity item cannot scope immediately under an anti-additive operator, such as negation.[2]

(9) John didn't notify someone. # ¬∃
(can only mean: 'there is someone John didn't notify')

Surprisingly, indefinite pronouns appear perfectly capable of scoping under negation, in the configuration described in (8), just in case they are modified by a relative clause.[3] Sentences (10a) and (10b) demonstrate this contrast.

[1] Becker (1999) is a notable exception, as she gives an account of the data in (4) and (7). Our accounts of these two pieces of data share some analytical intuitions.

[2] Meta-linguistic negation constitutes a confound, as sentences like (9) are acceptable, with stress on *didn't*, when they immediately follow an assertion of "John notified someone."

[3] Szabolcsi (2004:footnote 9) observes that "the presence of a postnominal modifier (as in *something interesting*) often enables the PPI to scope directly below negation." Szabolcsi's datum can be incorporated into the proposal in this paper, if we assume that postnominal modifiers in English are in fact reduced relative clauses (see among others Cinque, 2010).

(10) a. John doesn't attack someone. # $\neg\exists$
b. John doesn't attack someone he respects. ✓ $\neg\exists$

The account in this paper takes the behavior of *a NP* indefinites to be the paradigmatic behavior of indefinites. The task is therefore to explain

1. how unmodified indefinite pronouns differ from *a NP* indefinites,
2. and how *some NP* indefinites differ from *a NP* indefinites and from indefinite pronouns.

Interestingly, the accounts of points 1. and 2. will turn out to be independent from each other. I will justify this characteristic of my proposal by giving independent evidence in favor of the important distinctions between classes of indefinites it suggests.

The contrast in (10) will come out as a corollary of my account of the facts summarized in Table 1, while allowing us to keep the generalization about PPIs in (8) as is.

1.2 The account, informally

What semantic mechanism gives rise to the generic and unselectively bound readings examined above? I propose that under well-defined conditions an indefinite can restrict an operator that quantifies over situational variables. This includes the covert generic operator and overt adverbial quantifiers. The discussion in this paper will concentrate fully on the special case of the generic operator, but it should be clear that it extends to adverbial quantifiers in general.

This manner of restriction is only possible if the indefinite has a situational parameter, otherwise the indefinite is unsuitable to restrict a quantifier over situational entities due to vacuous quantification over a situational variable.

I argue that pronominal bases, and thus unmodified indefinite pronouns, lack a situational parameter. In the spirit of Dayal (1998, 2005), I propose that relative-clause modification introduces a situational variable.

This accounts for the contrast in (11). Only the modified indefinite pronoun in (11b) is a suitable restrictor for the covert generic operator.

(11) a. Someone should be punctual. # gen
b. Someone who respects others should be punctual. ✓ gen
'Typical / generic situations containing an individual who respects others are such that that individual should be punctual'

As the paraphrase under (11) suggests, I will assume that the indefinite effecting the restriction of the adverbial quantifier dynamically binds an individual variable in the scope of the adverbial quantifier. However, nothing in this account hinges crucially on this particular point.

Because NPs have their own situational parameter (Enç, 1986), *a NP* indefinites are suitable restrictors irrespective of relative-clause modification. *Some NP* indefinites seem suitable restrictors as far as parametrization to a situational variable, but they obligatorily trigger an epistemic inference which prevents them doing so.

(12) Mary is dating some guy.
inference: 'The identity of the guy Mary is dating is unknown to the speaker / irrelevant for this conversation / uninteresting'

As (12) illustrates, this inference contains definite descriptive material from the minimal clause containing the *some NP* indefinite. The obligatory presence of this inference about a *particular individual* is incompatible with generic quantification. Intuitively (for the time being), the sentences in (13) lack generic readings for roughly the same reason (14) is nonsensical.

(13) a. Some student should be punctual. # gen
b. Some student who respects others should be punctual. # gen

(14) ?? Every student should be punctual. The identity of the student who should be punctual doesn't matter.

How do suitable indefinites get to restrict adverbial quantifiers in the paradigm above? I propose that adverbial quantifiers, including the covert generic operator, are alternative sensitive and that indefinites contribute alternatives, rather than generalized quantifiers, to the computation. Adverbial quantifiers must have access to the alternatives contributed by indefinites. Because standard alternative semantics (such as Kratzer and Shimoyama, 2002) do not provide a way for higher operators to access directly the alternatives generated by an indefinite, I propose a move from simple alternative semantics to structured alternative semantics.

Finally, this proposal explains the apparent $\neg > \exists$ reading of (15b) as a scope illusion. Rather than scoping under negation, thereby violating the characteristic restriction on positive polarity items, the indefinite in (15b) is in fact restricting the covert generic quantifier, acquiring universal force. Effectively, (15b) is an instance of $\forall\neg$, rather than $\neg\exists$.

(15) a. John doesn't attack someone. # $\neg\exists$
b. John doesn't attack someone he respects. ✓ $\neg\exists$

2 Structured alternative semantics

Following the insight of the alternative semantics (or Hamblin semantics) of Kratzer and Shimoyama (2002) (henceforth K&S), I take it that indefinites contribute something like sets of individuals (alternative sets) to the semantic computation, rather than generalized quantifiers. However, I propose to add a minimal amount of structure to the interpretation of alternative-carrying sentences. Instead of interpreting a sentence like (16) as a (possibly existentially quantified)[4] set of propositions, a structured alternative semantics interprets them as pairs

$$\langle \text{background, alternatives} \rangle.$$

The background is an open proposition, the alternatives list the individuals that can saturate the background open proposition, and correspond to K&S's proposed interpretation for indefinites. Compare the two kinds of interpretation in (16a) and (16b).

(16) Mary saw someone.

[4]For K&S, sets of propositions are always eventually quantified over, bringing them to the level of truth conditions. The framework of Inquisitive Semantics however (Groenendijk, 2008, Mascarenhas, 2009) argues that there is much to be gained from exploring the proposition-set interpretation of sentences, without quantification of any kind over these sets. The proposal in this paper is silent about this particular issue.

a. K&S-style alternative semantics: $\{\lambda s.saw'(s)(x)(m) : x \text{ a person}\}$
b. This proposal: $\langle \lambda sx.saw'(s)(x)(m), \lambda x.person'(x)\rangle$

An intuitive way to look at these meanings is as instructions to build a (K&S style) proposition-set meaning. The background gives us a function from (situations to functions from) individuals to truth-values, and the alternatives provide the domain restriction of this function. Applying each individual in the alternatives to the background and collecting all the results gives us the K&S style proposition set in (16a).

Crucially, in the structured meaning (16b), but not in the proposition-set meaning (16a), the alternatives contributed by the indefinite are fully accessible to operators higher in the structure. This will allow the generic operator and adverbial quantifiers to bring these alternatives into their restrictors. While the move to structured alternative semantics can be motivated independently, it is important to remark that within this proposal structured alternatives serve this stated technical purpose. That is, the account of the paradigm of generic readings and unselective binding in this paper could be directly recast in other frameworks, as long as these frameworks provide a way for higher operators to access indefinite-generated alternatives directly, rather than only being allowed to see proposition-size alternatives.

Meanings as in (16b) were proposed by Krifka (2001) within a structured-meanings account of questions. Krifka argues that they are necessary to account for certain focus phenomena in answers, as well as to distinguish between questions that are indistinguishable for a standard (structureless) question semantics.

Interestingly, Szabolcsi (2003) gives a variable free dynamic semantics that relies on a treatment of indefinites that is isomorphic to Krifka's work on questions and the structured alternative semantics proposed in this paper.[5] Structured alternative semantics can therefore be seen within a broader context of proposals that add structure to the interpretation of indefinites and questions.

There is naturally more than one way to implement structured alternatives compositionally. A modification of Szabolcsi's (2003) dynamic semantics gives a variable-free categorial grammar for structured alternatives. Krifka (1995, 2011) gives a compositional treatment of focus and questions in a structured meanings approach. In the interest of space, I refrain from presenting the specifics of any of these implementations in this paper. It is however important to see examples of the kinds of sentence interpretations that my proposal assumes.

Recall that sentences are interpreted as pairs ⟨background, alternatives⟩. Backgrounds are functions of type $s(et)$, where s is the type of situations, or spatial-temporal locations.[6] Alternatives are also functions from situations to predicates of individuals.[7] Alternatives are fully determined by properties of the indefinite.

Because pronominal bases lack a situational parameter, indefinite pronouns contribute functions constant with respect to their situational argument (17a). Modified indefinite pronouns

[5] Szabolcsi's (2003) interpretation of a sentence like "Someone entered the room" is $\lambda p x.enter'(x) \wedge p$, for x a variable ranging over people. Ignoring the abstraction over the continuation variable p (which is however needed for the dynamic properties of Szabolcsi's system), we see that this interpretation consists of a background — the lambda term itself — and a set of alternatives — hidden in the restriction of the domain of the function to the set of people.

[6] For the case of sentences with multiple indefinites, the types will become more complex, as further abstractions over variables of type e will be present in the background.

[7] For the case of indefinites like *somewhere* or *sometime*, they will be functions from situations to predicates of locations respectively times.

(17b), *a NP* indefinites (17c), and *some NP* indefinites (17d) contribute alternatives that (potentially) vary with the situational argument they are given. In the next section, I give my account of the paradigms reviewed in section 1 and motivate the proposal about pronominal bases.

(17) a. Mary saw someone.
$\langle \lambda sx.saw'(s)(x)(m), \lambda sx.person'(x) \rangle$

b. Mary saw someone who seemed interesting.
$\langle \lambda sx.saw'(s)(x)(m), \lambda sx.person'(x) \wedge interesting(s)(x) \rangle$

c. Mary saw a person.
$\langle \lambda sx.saw'(s)(x)(m), \lambda sx.person'(s)(x) \rangle$

d. Mary saw some person.
$\langle \lambda sx.saw'(s)(x)(m), \lambda sx.person'(s)(x) \rangle$

3 Indefinite pronouns and *a NP* indefinites

3.1 Indefinite pronouns

Recall the contrast in (18)

(18) a. Someone should be punctual. # gen

b. Someone who respects others should be punctual. ✓gen

I make the standard assumption (see Carlson and Pelletier, 1995, and references therein) that the interpretation of (18b) involves a covert occurrence of the generic operator GEN. Let GEN be defined as in (19), abstracting away from the specific quantificational force of the generic quantifier and interpreting it as a universal quantifier over situations, for simplicity. In (19), the existential quantifier is dynamic and thus donkey-binds x in the consequent.[8]

(19) GEN$(\langle B,A \rangle)$ is true iff $\forall s.(\exists x.A(s)(x)) \rightarrow B(s)(x)$

The interpretation of (18b), with a covert application of GEN, is as in (20).

(20) GEN [Someone who respects others [should be punctual]]
GEN$(\langle \lambda sx.$*should be punctual*$'(s)(x), \lambda sx.person'(x) \wedge$ *respects others*$'(s)(x) \rangle)$
$= \forall s.(\exists x.person'(x) \wedge$ *respects others*$'(s)(x)) \rightarrow$ *should be punctual*$'(s)(x)$
'Every (generic) situation s containing some person x who respects others in s is such that x should be punctual in s.

This produces the desired truth conditions. What about unmodified indefinite pronouns as in (18a), which cannot get generic readings?

Recall the proposal that pronominal bases lack a situational parameter. This amounts to saying that the predicate contributed by the pronominal base effects a very weak kind of restriction to the meaning of the indefinite. Pronominal bases like *-one* and *-thing* allow indefinites to range over

[8] This is a design choice, and by no means a crucial aspect of this proposal. The following definition would work just as well: GEN$(\langle B,A \rangle)$ is true iff $\forall sx.A(s)(x) \rightarrow B(s)(x)$. The dynamic version in (19) is arguably more intuitive, as it maintains the essentially existential nature of the indefinite.

different sorts of entities like people and objects, but that is as specific as one is allowed to get simply with a pronominal base. In particular, it is impossible to interpret an unmodified indefinite pronoun like *someone* as restricted to, say, the people in New York City at the time of writing of this paper. I return to this issue shortly.

Following the spirit of Dayal's (1998) account of free-choice *any*, I propose that in (18a) the generic operator cannot apply because the alternatives supplied by the indefinite cannot be parametrized to a situation.

(21) GEN [Someone [should be punctual]]
GEN$(\langle \lambda sx.\textit{should be punctual}'(s)(x), \lambda sx.\textit{person}'(x)\rangle) =$
$\forall s.(\exists x.\underline{\textit{person}'(x)}) \rightarrow \textit{should be punctual}'(s)(x)$

As seen in the underlined portions of (21), the indefinite pronoun contributes a predicate without a situational argument (the lambda abstractor over s in the alternatives is there purely for compositional reasons). The result of applying GEN will involve vacuous quantification by the generic quantifier into its restrictor. The need for parametrizable material in the restrictor is ubiquitous with adverbial quantifiers, as demonstrated by the sharp deviance of the sentences in (22).

(22) a. *Whenever I am hungry now, I always tend to eat.
b. *Whenever Callas died in 1977, I usually feel nostalgic.

In (22), the *whenever*-clauses, functioning as overt situational restrictors, contain material whose situational variables are already saturated. The adverbial quantifiers *always* and *usually* thus quantify vacuously into their own restrictors, and deviance obtains. Similarly, in (21), vacuous quantification of the generic quantifier into its restrictor yields sharp deviance, and the reading with GEN present is ruled out.[9]

The proposal that unmodified indefinite pronouns cannot be parametrized to a situation has independent motivation. It predicts that the schema in (23), instantiated in (24), cannot be observed with unmodified indefinite pronouns.

(23) $Op_1(s) > Op_2(s') > (Qx \in P(s))R(s')(x)$

(24) Someday, everybody now alive will be dead.
$(\exists t > \textit{now})\ (\forall x. \in \textit{alive}'(\textit{now})) \rightarrow \textit{dead}'(t)(x)$

The crucial feature of the schema in (23) is that the restrictor P of a quantifier Q low in the structure contains a variable bound by a distant operator Op_1 and not the closer Op_2. In (24) (a kind of sentence discussed at length in Cresswell, 1990), the role of Op_1 is played by the conversational context and that of Op_2 by the adverb *someday*. Notice that the restrictor of the universal quantifier *everybody* contains the contextual *now* as an argument, and not the variable t bound by *someday*.

If unmodified indefinite pronouns do not take situational parameters, we predict that it should be impossible to manipulate directly the situation at which the predicate contributed by the

[9] I cannot at this point definitively answer the important question of whether the requirement that adverbial quantifiers have non-vacuously quantified restrictors is a well-formedness constraint or a pragmatic one. The sharp deviance of (22), as well as the complete unavailability of a generic reading for (21), suggest that it is a well-formedness constraint, but a more comprehensive look at the effects of violating this constraint elsewhere in language might be needed to decide.

pronominal base is evaluated. These kinds of configurations are indeed unavailable to unmodified indefinite pronouns. Compare the sentences in (25), where the prefixed judgments indicate the availability of the reading where the indefinite is interpreted with respect to the context of utterance.

(25) a. If, in 200 years, someone who is now old is still alive, the world will be shocked.
([in 200 years s] $\underline{(\exists x \in \mathit{person}' \cap \mathit{old}'(\mathit{now}))}\ \mathit{alive}'(s)(x)) \rightarrow$ the world will be shocked

b. ?If, in 200 years, an old man is still alive, the world will be shocked.

c. ?If, in 200 years, some old man is still alive, the world will be shocked.

d. # If, in 200 years, someone is still alive, the world will be shocked.
([in 200 years s] $\underline{(\exists x \in \mathit{person}')}\ \mathit{alive}'(s)(x)) \rightarrow$ the world will be shocked

Sentence (25a), with a modified indefinite pronoun, forces the relevant reading. Although ambiguity creeps in, this reading is also available for (25b) and (25c), with a *a NP* indefinite, respectively a *some NP* indefinite. Sentence (25d) contrasts sharply with any of the preceding three, in that the relevant reading is completely impossible: notice the absence of a situational parameter in the restrictor of the existential quantifier.

It is however possible to bring (25d) up to the same status as (25b) and (25c) with respect to the relevant reading, via contextual domain restriction. Imagine a speaker addressing an audience and uttering the discourse in (26).

(26) It is reasonable to expect that many of you will still be alive in 100 years. ?But if someone is still alive in 200 years, the world will be shocked.

While still somewhat odd, (26) shows that contextual domain restriction might well be possible even in the absence of a situational parameter. This is compatible with the proposal in this paper.

3.2 *A NP* indefinites

A NP indefinites are interpreted just like modified indefinite pronouns in the relevant respects. Their NP provides material that can be parametrized to a situation (Enç, 1986), and thus the generic readings of the sentences in (27), as well as the fact that relative-clause modification makes no relevant difference, are readily accounted for. Compare the underlined portions of the sentences in (28), highlighting the differences in the analyses of *a NP* indefinites, indefinite pronouns, and modified indefinite pronouns.

(27) a. A person should be punctual. ✓gen

b. A person who respects others should be punctual. ✓gen

(28) a. Someone should be punctual. # gen
$\langle \lambda sx.\mathit{should\ be\ punctual}'(s)(x), \lambda sx.\underline{\mathit{person}'(x)} \rangle$

b. A person should be punctual. ✓gen
$\langle \lambda sx.\mathit{should\ be\ punctual}'(s)(x), \lambda sx.\underline{\mathit{person}'(s)(x)} \rangle$

c. Someone who respects others should be punctual. ✓gen
$\langle \lambda sx.\mathit{should\ be\ punctual}'(s)(x),$
$\lambda sx.\underline{\mathit{person}'(x) \wedge \mathit{respects\ others}'(s)(x)} \rangle$

3.3 Positive polarity pronouns

This account extends to data as in (29), where a modified positive polarity item appears to be able to take scope under negation, violating the generalization in (30). I assume a semantic formulation of the constraint on PPIs, such as Szabolcsi's (2004).

(29) a. John doesn't attack someone. # $\neg\exists$
b. John doesn't attack someone he respects. ✓ $\neg\exists$

(30) In monoclausal structures, a positive polarity item cannot scope immediately under an anti-additive operator, such as negation.

I propose that in (29b) the generic operator is present. The interpretation of (29b) is therefore as in (31).

(31) John doesn't attack someone he respects.
GEN($\langle \lambda sx.\neg attack'(s)(x)(j), \lambda sx.person'(x) \wedge respects'(s)(x)(j)\rangle$)
$= \forall s.(\exists x.person'(x) \wedge respects'(s)(x)(j)) \rightarrow \neg attack'(s)(x)(j)$

In (31) negation isn't scoping above the indefinite and violating the constraint in (30). Rather, the indefinite is restricting the generic quantifier, away from the negation, and dynamically binding into the nuclear scope of the generic quantifier. This gives the illusion of a $\neg > \exists$ scopal configuration, without actually instantiating one.[10] Sentence (29a) lacks the corresponding illusory $\neg > \exists$ scope reading because it lacks a generic reading.

Since GEN is incompatible with episodic sentences (see among others Menéndez-Benito, 2005), this analysis predicts that in episodic sentences the illusion of $\neg\exists$ readings does not arise. This prediction is borne out. Contrast (29b) with (32).[11]

(32) Yesterday at 5:00pm, John didn't attack someone he respected. # $\neg\exists$
(can only mean: 'yesterday at 5:00pm, there was someone John respected whom he didn't attack')

4 *Some NP* indefinites

Recall that *some NP* can never get generic readings, irrespective of relative-clause modification:

(33) a. Some person should be punctual. # gen
b. Some person who respects others should be punctual. # gen

This is puzzling because *some NP* indefinites do take a situational argument. Why then do *some NP* indefinites not behave like *a NP* indefinites?

Some NP indefinites are epistemic indefinites (Aloni and Port, 2010): they obligatorily trigger an epistemic inference, roughly to the effect that the identity of the NP is unknown, irrelevant, or intrinsically uninteresting.[12]

[10] It can be thought of as an instance of $\forall\neg$, rather than $\neg\exists$. See footnote 8.

[11] The usual caveats about PPI judgments apply. That is (32) can be used with a $\neg\exists$ interpretation, but only with the focus on *didn't* that is characteristic of meta-linguistic negation.

[12] See Jayez and Tovena (2006) and Aloni and Port (2010) for an overview of the functions of epistemic indefinites in French, respectively German and Italian. For English *some NP*, Becker (1999).

(34) Mary is dating some guy.
inference: 'the identity of the guy Mary is dating is unknown / irrelevant / uninteresting'

I propose that this property of *some NP*, which sets these indefinites apart from *a NP* indefinites and indefinite pronouns (such as *someone*), is responsible for blocking generic readings and unselective binding. Intuitively, the GEN operator (and other adverbial quantifiers), because it uses the alternatives provided by the indefinite to form its restrictor, is incompatible with the persistence of an inference about *a particular individual*, such as the obligatory inference of epistemic indefinites. As Farkas (2002) puts it, *some NP* indefinites have a "stubborn existential force," and this trait is incompatible with participation in generic or unselectively bound readings.

Interestingly, in some languages the correlates of *some NP* indefinites are clearly more morpho-syntactically complex than *a NP* indefinites and indefinite pronouns. Portuguese *algum NP* is a good example, as shown in (35).[13,14] While not constituting an argument, this fact provides further empirical support to the proposal that *some NP* indefinites and their correlates in other languages have features absent from the other classes of indefinites considered in this paper.

(35) a. alguém — alg + ém
'someone' some person

b. um estudante
a student

c. algum estudante — alg + um estudante
'some student' some + a student

Within the framework of structured alternative semantics, and glossing over issues of the semantics of questions and of predicates of questions such as *be irrelevant*, the general formulation of this inference is as in (36). Importantly, the inference contains a definite description with material from the clause containing the indefinite, namely the B (background) part:

(36) Epistemic inference for a sentence $\langle B, A\rangle$
$\lambda s.\ \big((\text{which } y)\ y = \iota x.A(s)(x) \wedge B(s)(x)\big)$ is unknown to α / irrelevant / uninteresting in s
in words: it is unknown to α / irrelevant / uninteresting which individual is that individual with the properties A and B.

(37) Mary is dating some guy.
$\langle \lambda sx.dating'(s)(x)(m), \lambda sx.guy'(s)(x)\rangle$
inference: $\lambda s.\ \big((\text{which } y)\ y = \iota x.guy'(s)(x) \wedge dating'(s)(x)(m)\big)$ is unknown to α / irrelevant / uninteresting in s

There are two components of (36) that I will remain noncommittal about. First, the agent with respect to which the identity of the indefinite is unknown (/irrelevant / uninteresting) is typically the speaker, but, as Aloni and Port (2010) point out, under attitude verbs such as *believe* the possibility of relativizing the epistemic inference to the attitude-holder arises. The issue seems immaterial for

[13] A similar case could perhaps be made for German *irgend* + *ein Student*, but the distribution of German *irgend* doesn't track that of English *some* quite closely enough (see for example Kratzer and Shimoyama, 2002). Portuguese *alg-* corresponds much more closely to English *some* in the relevant respects.

[14] While less productive than the English pronominal base *one*, the Portuguese morpheme *em* occurs also in the interrogative series (*quem*, "who") and the negative series (*ninguém*, "no one").

the purposes of this account, so I represent this agent as a free variable α and remain tacit about how its reference is determined.

Second, the exact status of the epistemic inference is unclear, in particular whether it is a conversational implicature derivable via Gricean reasoning (e.g. Kratzer and Shimoyama, 2002) or a lexically triggered felicity condition or presupposition (e.g. Aloni and Port, 2010). On the one hand, the epistemic inference seems uncancelable, suggesting a presupposition account. On the other hand, the inference can be very easily embedded in downward entailing contexts, as demonstrated in (38).

(38) Someone may drop by today. If it's the plumber, let him in. **If it's some guy, don't.**
most natural interpretation: if it's a guy whose identity is unknown / irrelevant / uninteresting, don't let him in

If the mechanism of local accommodation for presuppositions is costly, this is at odds with the naturalness of the indicated interpretation of (38). I will not attempt to resolve the issue in this paper, and will follow Aloni and Port (2010) in taking the epistemic inference to be a felicity condition triggered by *some*.[15] The only crucial point for the account of the lack of generic readings for *some NP* is the idea, explicitly encoded in (36), that the epistemic inference contains material from the clause containing it, rather than simply material contributed by the *some NP* indefinite itself.

Notice that the epistemic inference is absent from *a NP* indefinites and indefinite pronouns, as seen in the incoherence of the (b) and (c) continuations of (39) and (40).

(39) Someone may drop by today. If it's the plumber, let him in.
   a. If it's some guy, don't
   b. ?? If it's a guy, don't.
   c. ?? If it's someone, don't.

(40) Whenever Mary is dating John I am happy,
   a. but when she's dating some guy I'm not.
   b. ?? but when she's dating a guy I'm not.
   c. ?? but when she's dating someone I'm not.

The question is then: what would happen if the covert generic operator were present in the interpretation of a sentence like (41)?

(41) Some student should be punctual.
$\langle \lambda sx.\textit{should be punctual}'(s)(x), \lambda sx.\textit{student}'(s)(x) \rangle$
presupp.: $\lambda s.\ \big((\text{which } y)\ y = \iota x.\textit{student}'(s)(x) \wedge \textit{should be punctual}'(s)(x)\big)$ is unknown to α / irrelevant / uninteresting in s

Suppose we apply GEN to (41). There are two possible fates for the presupposition. First, it may follow the alternatives generated by the indefinite *some student* and be embedded in the restrictor of GEN. Below, I abbreviate "ϕ is unknown / irrelevant / uninteresting to α in s" as $U(\alpha)(s)(\phi)$, to make formulas more readable.

[15] Note that the fact that the epistemic inference cannot be canceled doesn't preclude a conversational implicature analysis. The epistemic inference might be a mandatory "blind" implicature, of the sort discussed by Magri (2011).

(42) GEN[Some student [should be punctual]]
GEN($\langle \lambda sx.\textit{should be punctual}'(s)(x), \lambda sx.\textit{student}'(s)(x)\rangle$) =
$\forall s.(\exists x.\textit{student}'(s)(x) \wedge$
$\underline{U(\alpha)(s)((\text{which } y)\ y = \iota x.\textit{student}'(s)(x) \wedge \textit{should be punctual}'(s)(x)))}$
$\underline{\rightarrow \textit{should be punctual}(s)(x)}$
'All situations containing a student and such that *the identity of the student that should be punctual is unknown / irrelevant / uninteresting* are such that that student should be punctual'

Notice how the underlined portion of (42), corresponding to the embedded epistemic inference, contains a definite description with material that is not introduced in the antecedent (*the student who should be punctual*). The interpetation under (42) is a presupposition failure and is therefore blocked.

The other logical possibility is that the epistemic inference projects all the way to the top. As (43) shows, this yields a presupposition failure as well:

(43) GEN[Some student [should be punctual]]
GEN($\langle \lambda sx.\textit{should be punctual}'(s)(x), \lambda sx.\textit{student}'(s)(x)\rangle$) =
$\forall s.(\exists x.\textit{student}'(s)(x) \rightarrow \textit{should be punctual}(s)(x)$
presupp.: $\underline{\lambda s.U(\alpha)(s)((\text{which } y)\ y = \iota x.\textit{student}'(s)(x) \wedge \textit{should be punctual}'(s)(x))}$
'All situations containing a student are such that that student should be punctual. PRESUPP.: *The identity of the student that should be punctual is unknown / irrelevant / uninteresting*'

One might expect it to be possible for the definite-description presupposition within the epistemic inference to be locally accommodated as well, giving rise to readings as in (44).

(44) GEN[Some student [should be punctual]]
'All situations containing a student x and containing a student y who should be punctual and whose identity is unknown / irrelevant / uninteresting are such that the student x should be punctual'

Clearly, this sentence lacks the reading in (44). It is not completely clear what excludes this possibility, but the sharp oddity of perfectly analogous examples as in (45) provides evidence that this is a general constraint on presupposition accommodation.

(45) a. ?? Whenever a student is late and the identity of the student I get mad at is unknown, I get mad at the first student.
b. ?? Whenever a student is late and the identity of the professor I get mad at is unknown, I get mad at the student.

I propose that the reading in (44) is excluded for the same reason that the presuppositions of the definite descriptions in (45) seem impossible to accommodate. I must leave to future research the question of what exact property of presupposition accommodation is responsible for this.

Finally, it is important to remark that this account does not predict that *some NP* indefinites will never occur in the restrictor of an adverbial quantifier. It predicts only the unavailability, for *some NP*, of the specific mechanism proposed here whereby a situational quantifier forms its restrictor

by using the alternatives provided by an indefinite. Accordingly, (46) is a grammatical sentence, where the epistemic inference "the identity of the student who is in trouble is unknown / irrelevant / uninteresting" is embedded in the *when*-clause.

(46) When some student is in trouble, I always do my best to help him.
'When a student is in trouble and the identity of this student is unknown / irrelevant / uninteresting, I always do my best to help him'

5 Concluding remarks

This paper set out to explain the paradigms summarized in (47).

(47) Summary of facts accounted for:

	generic readings / unselective binding	
	subtrigged	not subtrigged
indefinite pronouns	✓	×
a NP	✓	✓
some NP	×	×

The account is couched in a structured alternative semantics, combining a Kratzer and Shimoyama (2002) approach to indefinites with Krifka's (2001) analysis of questions as structured meanings. A structured alternative semantics adds to a classical alternative semantics the possibility of accessing the alternatives generated by the indefinite later on in the computation. Adverbial quantifiers, including the covert generic operator GEN, are alternative sensitive, and can potentially use these indefinite-generated alternatives to form their restrictors.

This process is blocked in two classes of cases. 1. Unmodified indefinite pronouns lack a situational parameter, and therefore cannot restrict a quantifier over situations. Quantifiers of this sort require restrictors that can be parametrized to a situation. 2. *Some NP* indefinites trigger an obligatory epistemic inference with definite descriptive content that is incompatible with the purely quantificational force that an indefinite acquires by virtue of restricting an adverbial quantifier.

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