into questions. Questions only have individual and functional readings. The so called
pair list reading is a special case of the functional one. This arguably simplifies things,
as extending quantification to questions (even for the limited cases in which it would
be at all feasible) involves non trivial extensions of the standard quantificational
mechanisms (depending on what theory of questions one adopts).

If questions are the wrong type of objects to quantify into, it follows that the
observed wh-quantifier interactions cannot be a matter of relative scope, as it is instead
assumed on all the accounts I am familiar with. The view of questions I have defended
suggests, however, a natural alternative to such approaches. Functional wh-phrases
leave behind an f-index and an a-index that must be suitably bound. And it turns out
that the ungrammatical readings of questions are precisely those where binding of the
a-index would give rise to a crossover violation.

What I find interesting and perhaps distinctive of this way of looking at wh-
quantifier interactions is that nothing specific to them needs to be assumed. The
minimal assumptions which are necessary anyway to deal with functional readings
interact with independently observable constraints, such as weak crossover, to in fact
predict the observable pattern of grammatically judgements.

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Partitives and the Definiteness Effect
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0. Introduction

Since Milsark's (1974) study of English existential sentences, there have been
various explanations for the 'definiteness effect', i.e. the fact that only certain noun
phrases can occupy the postcoper position in sentences of the form there be NP
(KP). The definiteness effect is illustrated by the contrast in (1):

(1) a. There is a /every cat in the backyard.
b. There are several / the cats in the backyard.

Within a treatment of NPs as generalized quantifiers, the definiteness effect has
been explained in terms of the nature of the determiner (Barwise and Cooper
(1981)) or the existential presupposition carried by the NP (do Jong and Verkuyl
(1985)). The contention of this paper is that the definiteness effect is not a unitary
phenomenon. I will argue that only an account that takes into consideration both
the nature of the determiner and the existential presupposition carried by the postcoper
NP can explain the full range of data. The necessity of making reference to both
factors becomes obvious when we consider the distribution of partitive NPs in
existential sentences.

Our analysis will shed some light on the difference between what have been
termed the 'existential use' and the 'presentive use' of there-insertion sentences;
that is, their use as assertions of existence as opposed to their use as a sentence-type
meant to introduce a new discourse referent. No explicit characterization of the
difference between the two uses has been given in the literature. This paper argues
that the difference is not just a difference in use, but rather a truth-functional one.

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very grateful to Manfred Krifka and Barbara Partee for comments on earlier drafts.
I will argue below that, as soon as a discourse context is provided, seemingly 'bare' existentials (e.g. 'list' existentials) behave just like existential sentences with a coda with respect to the definiteness effect. (I use the term *coda* in Milsark's sense, as referring to the lexical material that follows the postcoupolar NP.)

1. NP Strength

Milsark (1974, 1977) classifies English determiners as weak or strong according to whether or not the NPs in whose constitution they enter can occur immediately after the copula in existential sentences. The sentences in (1), for instance, show *a* and *several* to be weak determiners, and *the* and *every* strong ones. Milsark's criterion yields the following two classes of determiners: 1) weak: the singular and plural indefinite articles, number determiners, *many, few, several, no*; 2) strong: the definite article, demonstratives, universals, *most, both, neither*.

As Milsark notices, partitive NPs cannot generally occur in existential sentences. Thus strength appears to be more properly viewed as a property of NPs rather than of determiners. Its source can be either the determiner or the partitive of the NP (or both). I will keep however the label strong for those determiners that can create a strong non-partitive NP (i.e. the demonstratives, universals, *most,* and *the*).

By a partitive NP, I mean an NP whose determiner takes as an argument a set already referred to in the discourse. Following Barwise and Cooper (1981), I interpret partitive as a function that maps an NP denotation into a CN denotation, namely the generator set of the NP in the of-phrase. Partitiveness creates strong NPs due to the Partitive Constraint (Jackendoff (1977)), a well-formedness condition that ensures the definiteness of the inner NP, ruling out NPs such as those in (4):

(4) a. *three of some flowers*
   b. *many of ninety candidates*

2 Ladusaw (1983) adduces some counterexamples to the Partitive Constraint:
   (i) a. This book could belong to one of three people.
   b. John was one of several students who arrived late.

Ladusaw points out that the NPs in (i) have to be interpreted as specific, i.e. as referring to a group of individuals that the speaker has in mind.

Because of space limitations, partitive NPs with specific indefinites downstairs will not be considered here; a detailed discussion is provided in Comorovski (1991).
The behaviour of partitives in existential sentences divides according to two factors: the strength of the determiner and the anaphoricity of the definite NP in the of-phrase. If the definite NP is a novel definite (in the sense of Heim (1982)), a partitive NP can occur in an existential sentence irrespective of the strength of the determiner:

(5) a. There are most / all / several of yesterday's exams left to correct.
   b. There is all this stuff on my desk. Can you pick it up?
   c. There were not many of the big bands around. (Hannay (1985: 105))

If the NP in the of-phrase is anaphoric, only partitive NPs with weak determiners are allowed after there be:

(6) a. Did you correct yesterday's exams?
   No, there are *most / all / five / several (of them) left to correct.

   b. Sam used to listen to the big bands. This time, there were
      *most / all / many / very few / three / several / a few (of him) around.

   c. The government banned his books.
      There's still *most / all / many / two / several / a few (of them) banned, and
      likely to remain banned. (adapted from Hannay (1985))

   d. How many of the boys are going to the game today?
      I think there are *most / all / very few / eight / several / a few (of them) going.
      (adapted from Hannay (1985))

We have seen the relevance of the anaphoricity of the definite NP in a paritive phrase, in case the quantifier of the paritive NP is strong. As has long been observed, definite NPs also can occur in an existential sentence, provided they are not anaphoric:

(7) a. There's the neighbour's kid / *him sick on the porch.
   b. Every time I go round to see George, there's his sister / *her there.
      (adapted from Hannay (1985))

(8) Who could help us?
   Well, there's / are George, Mike, and Sandy, for a start.

'List' existentials, illustrated in (8), are not bare existential sentences. They occur as answers to questions. They are elliptical forms of corresponding sentences with a predicate following the post-copular NP; the predicate is recoverable from the question. In (8), for instance, the predicate is who could help us or that could help us, as in There's George, Mike, and Sandy who could help us.

To summarize: both strength of the determiner and novelty with respect to the discourse file appear to play a role in the definiteness effect.

2. The two readings of existential sentences

The analysis of the 'definiteness effect' that I will propose takes the phrase marker in (9) as representing the structure of existential sentences. The tree in (9) borrows elements from the syntactic analyses of existentials that have been given under (2a) and (2b). The VP is ternary branching, as in Milnark's analysis in (2a).

As different from Stowell's analysis in (2b), the postcopular string is not represented as a small clause. Thus, the representation in (9) is in keeping with Williams's (1983) arguments against the constituent status of 'small clauses'. To capture Stowell's insight that there is a predication relation holding between the coda (XP) and the postcopular NP, the two phrases are coindexed, predication being thus represented as in Williams (1980, 1984).

(9)

How are existential sentences interpreted? Given binary combinations, there are in principle several orders of applying the semantic rules. I will not consider here all the possibilities, but suggest that existentials can be interpreted in two ways: 1) the denotations of be and of the coda are put together, and the result is combined with the denotation of the postcopular NP; the explicative there makes no contribution to the meaning of the sentence; 2) a denotation is assigned to the predication structure, and the result is combined with the meaning of there be. As will become evident shortly, the first order corresponds to what has been called the 'presumptive use' of there-insertion sentences, whereas the second corresponds to their 'existential use'. The two orders yield interpretations that are truth-conditionally distinct.

Let us consider the first order: the denotation of be is combined with that of the coda. The result is the denotation of a predicate of the form 'be XP'. This denotation is then combined with the denotation of the postcopular NP, yielding a
The post-verbal position of a subject in an SVO language can therefore be taken as an instruction for building the discourse file (in the sense of Heim (1982)). The instruction is: create a new file card. The card can be 'brand new' (cf. Prince (1981)), as for indefinites, or it can be introduced by crossreference to other file cards, as for accommodated definites. We expect unacceptable to result from the occurrence of any NP whose interpretation conflicts with this file building instruction.

Thus, the novelty condition rules out anaphoric definites, partitive NPs containing an anaphoric definite in the of-phrase, and all quantifying NPs (i.e. NPs that do not denote an individual or a group, and therefore cannot introduce a discourse referent). We have seen, though, that in case the determiner of the partitive NP is weak, the anaphoricity of the definite in the of-phrase is irrelevant. Likewise, any non-partitive quantifying NP with a weak determiner is allowed. I show next that the occurrence of NPs with weak determiners is allowed on the other possible order of application of the semantic rules, where the predication structure is interpreted first.

I take the predication structure to be interpreted by a rule proposed in Bach and Cooper (1978) for the NP-S analysis of restrictive relative clauses. The result they aim at is that a relative clause adjoined to an NP fall under the scope of the determiner of the NP it modifies. They need therefore a mechanism for extending the scope of the determiner of an NP over constituents which are not dominated by the NP. To this effect, Bach and Cooper introduce a free predicate variable in the translation of NPs, which, by &lambda;-conversion, gets substituted by a relative clause. Consider Bach and Cooper’s example every man who loves Mary:

\[ (13) \]

\[ NP \]

\[ \text{every} \]

\[ \text{man} \]

\[ \text{who loves Mary} \]

Bach and Cooper let every man denote the set of properties of every man with property R (in addition to Montague’s original interpretation). The higher NP in (13) will then denote the set of properties obtained by substituting the property denoted by the relative clause for R. The head NP translates as

\[ (14) \lambda P (\forall x) [ [ \text{Man}(x) \land R(x)] \Rightarrow P(x)] \]

and the relative clause as

\[ \lambda P (\forall x) [ [ \text{Man}(x) \land R(x)] \Rightarrow P(x)] \]
interpretation of some of the new students is put together with the interpretation of coming for dinner by the predication rule in (16), yielding the following translation for some of the new students coming for dinner:

\[ \lambda R \lambda P (\exists x) [\text{NewStudent}(x) \wedge R(x) \wedge P(x)] (\lambda z [\text{Come'}(z)]) \]

(21) reduces to:

\[ \lambda P (\exists x) [\text{NewStudent}(x) \wedge \text{Come'}(x) \wedge P(x)] \]

By making use of Bach and Cooper's (1978) predication rule, we have been able to bring the predicate under the scope of the determiner (some) of the partitive NP. Note that the predicate is not under the scope of partitive of, hence Jackendoff's (1977) Partitive Constraint does not apply. Thus the intersection of NewStudent with Come' need not be an already given non-empty set of students coming for dinner; therefore, there may be no new students coming for dinner.

At this point, it is possible to use Barwise and Cooper's (1981) explanation of the definiteness effect, which was not intended by them to cover partitive NPs. Barwise and Cooper define strong and weak determiners as follows:

(23) A determiner D is positive strong or negative strong, respectively, if for every model \( M = <E, \| > \) and every \( A \subseteq E \), if the quantifier \( \| D \| (A) \) is defined, then \( A \subseteq \| D \| (A) \) (or \( A \subseteq \| D \| (A), \) respectively). If D is not positive or negative strong, then D is weak.

Barwise and Cooper prove the proposition in (24) and give the rule in (25) as the interpretive rule for existential sentences:

(24) If a quantifier Q on \( M = <E, \| > \) lives on A, then \( A \subseteq Q \) if \( E \subseteq Q \).

(25) A sentence of the form there is some NP can be interpreted as meaning that the set of individuals in the model (E) is a member of the quantifier in the NP.

One can regard E, the set of individuals in the model, as the set of individuals which exist, since existence is one property shared by all individuals. This interpretation of E is consistent with the view of existence as location in the model, discussed in the introductory section. Given (23)-(25), a sentence of the form there be NP is a tautology if the detemrimer of the postcopular NP is strong since, by proposition (24), E will be in the quantifier. For negative strong determiners, the result is a contradiction.

Barwise and Cooper (1981) advance their analysis for both 'bare' existentials
and existential sentences with a coda. We have seen at the beginning of this paper that what looks like bare existentials are in fact sentences with an understood (contextually provided) coda. In order to give a uniform treatment for all existential sentences, Barwise and Cooper syntactically analyze the postcognate string as one NP, i.e. they adopt the syntactic representation in (2c). None of the proponents of this syntactic analysis ever gives details about the internal structure of the alluded NP. Strong evidence against syntactically analyzing all postcognate strings as NPs is presented in Hannay (1985: 81-85). Notice also that there are postcognate strings, e.g., some of them invited for dinner, which do not occur in any position occupied by an uncontroversial NP.

We have kept Milstein's syntactic analysis of there-insertion sentences (cf. the tree in (9)) and at the same time will make use of Barwise and Cooper's (1981) explanation for the definiteness effect. What enables this treatment is the possibility opened up by Bach and Cooper's (1978) predication rule of assigning an NP denotation to a string which syntactically is not an NP; i.e. we will have a semantic constituent which does not correspond to a syntactic constituent.

We return now to our sentence There are some of the new students coming for dinner. The NP denotation obtained in (22) for the non-constituent string some of the new students coming for dinner combines with there be by Barwise and Cooper's (1981) interpretive rule (25). Notice now that even if E is a member of the quantifier denoted by some of the new students, it need not be a member of the NP-denotation (22), since there may not be any new students coming for dinner. Thus, the existential sentence is an informative one in case the determiner of the postcognate partitive NP is weak. If, on the other hand, the partitive NP has a strong determiner (all or most), E will be a member of the quantifier denoted by all / most of the new students coming for dinner even if no new student is coming for dinner, since any predicate holds vacuously of NPs of the form all / most CN if the common noun denotes the empty set.

Bach and Cooper's (1978) predication rule has been crucially used in assigning an NP denotation to a string which syntactically is not an NP. The strong claim that the representation of existential sentences involves a semantic constituent which does not correspond to a syntactic constituent is independently motivated by ambiguities which arise with the focus particle only. Take the dialogues in (26):

(26) a. Q: Were there many people drunk in the bar?
   A: No, there was only John drunk.
   'Of the people in the bar, only John was drunk'.

b. Q: Was there anybody in the bar?
   A: There was only John drunk.
   'Of the people in the universe, only John was in the bar and he was drunk'.

The two readings of the sentence There was only John drunk are told apart by the different stress patterns of the sentence: on the first reading, John receives pitch accent, whereas on the second, both John and drunk receive pitch accent. On the first reading, John is focussed, whereas on the second, the whole predication structure is in focus. Notice that there is no question of structural ambiguity - the string John drunk cannot be assigned two structures.

A property of the sentence There was only John drunk as used in the contexts in (26) is that there are two phrases predicated of John. One is the AP drunk and the other one is the PP in the bar, a predicate provided by the context, i.e. by the question. What is of immediate relevance about the contrast in (26) is that the ambiguity is predicted only if one allows a non-constituent string formed of the postcognate NP and another phrase to be assigned an NP denotation. Thus, in (26b), the sentence is interpreted by combining John and drunk by Bach and Cooper's (1978) predication rule, obtaining in this way an NP denotation. This NP denotation, which does not correspond to a syntactic NP, constitutes the scope of only. In contrast, the same sentence appearing in the context in (26a) has John constitute the focus of only by itself. 4, 5

3. Conclusions

In sum - existential sentences whose postcognate NP contains a strong determiner can only be interpreted as inverted structures subject to a novelty condition. This is the so-called 'presentative use' of there-insertion sentences. All existential sentences whose postcognate NP has a weak determiner can be interpreted as assertions of existence; on this interpretation, the postcognate string is assigned an NP denotation, even though it often is not an NP syntactically. It is on this interpretation that existential sentences allow partitive NPs with a weak determiner and an anaphoric definite in the partitive phrase.

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4 Both readings of There was only John drunk are obtained by applying the inverted structure interpretation. In (26b), it is the NP denotation of John drunk (i.e. \( \exists x (\text{PP} \land \text{drunk}(x)) \)) which is subject to the novelty condition. In (26a), the NP John is subject to the novelty condition, while the denotations of the two predicates are combined by conjunction, yielding the predicate \( \forall x (\text{drunk}(x) \land \text{in the bar}(x)) \).

5 In Comorovski (1991), I provide evidence from other constructions that non-constituent strings must sometimes be analyzed semantically as one constituent which is the focus of only.
1. Introduction
Throughout the literature, WH-movement has been argued to involve either an adjunction or a substitution into the Spec CP. In this paper, I develop a view of WH-movement which involves both adjunction and substitution. I claim that substitution into the Spec CP is strictly local and available only for subject extractions; other WH-extractions are adjunctions to CP. This distinction between local subjects and other WH-extraction is not stipulated: as I will show, it derives, in fact, from very general principles. Since it singles out subjects, this approach casts a new perspective on the that-5 effect, explains restrictions on the French que/qui effect, provides an account for the fact that the que/qui effect does not improve subject extractions out of islands, predicts the existence of constructions such as the French Complex inversion construction, and provides an account of Germanic topicalization.

2. Background Assumptions
Recent discussions on the D-structure position of subjects raise definitional questions on the standard A/A' dichotomy. Assuming that the D-structure theta-position of subjects is internal to the VP projection, it is clear that the Spec of IP to which subjects raise, is never a potentially theta-marked position and thus never an A-position. In brief, the VP internal subject hypothesis warrants either a redefinition of the A/A' dichotomy or its abandonment. Quite independently of the A/A' distinction, types of movements have been standardly subdivided into substitution and adjunction. As currently understood, substitution of maximal projections involve movements to specifier positions and create structures of the