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On some Indefinites in English

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On some indefinites in English¹

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1. Introduction

English is not atypical in exhibiting a rich variety of indefinite determiners: *a(n)*, *some*, *a certain*, indefinite *this*, *one*, cardinals, partitives, the zero determiners of bare plurals (in some analyses), and, according to Horn 1999 and Giannakidou 2001, *any*. The immediate aim of this paper is to study the distribution and interpretation of a subset of these determiners. Despite the attention indefinites have enjoyed in the literature, this descriptive task is not trivial. It is worth undertaking because the study of the various subspecies of indefinites within a language, as well as cross-linguistically, is useful in helping us decide which theoretical tools are needed and how they might have to be refined.

In this paper I deal with a subset of the singular paradigm in English, namely with *a(n)*, *some*, *a certain* and, very briefly, indefinite *this*. I further limit my attention to the use of these determiners in argumental, full-fledged DPs. The term 'argumental' is used in contrast with 'predicative'. Argumental DPs restrict the argument of a predicate, while predicative DPs provide such a predicate. 'Full-fledged' DPs contrast with 'incorporated' ones. The question of whether a nominal expression (a DP or an NP) is incorporated or not is, unfortunately, not an empirical one. Here, following Farkas and de Swart 2001, I take full-fledged arguments to introduce a variable (or discourse referent) that instantiates a thematic argument of the predicate, whereas incorporated nominals are assumed to simply restrict such an argument. I therefore assume that at least some narrow scope indefinites are treated as full-fledged, rather than incorporated arguments.

The received theoretical machinery at our disposal includes the quantifiers of predicate calculus, generalized quantifiers, the weak/strong distinction, the distinction between free-variable introducing and quantificational DPs, the rich world of type theory further enriched with type-shifting and new ways of combining expressions, and the recent distinction between choice functional and non-choice functional indefinites. The notion of choice functions has been introduced into current discussion in work by Egli and von Stechow. In Reinhart 1997, Kratzer 1998, and Matthewson 1999 the ambiguity analysis of indefinites proposed in Fodor and Sag 1982 is recast in terms of an ambiguity between a choice functional and a non-choice functional interpretation of (certain) indefinites in an attempt to account both for their special wide scoping abilities, and, more relevantly for present purposes, for distinctions between various morphological types of indefinites.

The starting point of this discussion is provided by much earlier proposals, namely Kamp 1981 and Heim 1982. Before this work, formal semantics treated both definites and indefinites as existentially quantified expressions. The crucial novelty in D(iscourse) R(epresentation)

¹I am grateful to audiences at the workshop on choice functions, ESSLI, Helsinki, August 2001, and at the CSSP conference in Paris, October 2001, for useful questions and comments, to my colleague Jaye Padgett and to Benjamin Farkas, for being patient native consultants, to Christine Gunlogson, for long discussions about *some* and related as well as unrelated topics, and especially to the students in my winter 2001 seminar, who put up with the first and most virulent symptoms of my *some* obsession.

T(heory) and F(ile) C(hange) S(emantics) is to treat these DPs as non-quantificational free variable contributing expressions whose interpretational fate (including their quantificational force) is decided by their environment. One of the questions that is addressed below is whether there is need to make room for both the pre-Kamp/Heim quantificational view of (in)definites and the post-Kamp/Heim non-quantificational approach. If both views are needed, we are confronted with the question of whether some indefinites should be viewed as ambiguous between a quantificational and a non-quantificational interpretation. Below I will argue for a positive answer to the first question and a negative one to the second. In Section 2 I sketch a theoretical framework which will help in dealing with the empirical challenges posed by the indefinites studied in Section 3.

2. A constraint-based approach to determiners

The perspective on determiners sketched below builds on FCS and DRT in that it assumes an intermediary level of representation, called here semantic representation, consisting of variables (or discourse referents), conditions on these, and further structure imposed on both. Linguistic expressions are characterized both by what they contribute to this level and by how they affect its interpretation. I assume that the minimal contribution to semantic representation of an argumental descriptive DP is a variable and a condition on that variable. The variable is contributed by the D and the condition by the NP. In line with logics adopting restricted quantification, I take the interpretive function of the predicative condition to be that of supplying a set A (the *value set*) which constitutes the domain form which the variable introduced is to be assigned values. Conditions supplying the value set of a variable are called *value conditions*. Assignments of values outside the value set are not relevant to the interpretation of an expression.

Crucially, I assume that Ds may be lexically marked to contribute further constraints on the way the variable they introduce is to be assigned values, referred to below as evaluation constraints. In the case of uncontroversial quantificational Ds, these constraints are associated with special structures at the level of semantic representation. In the case of other Ds, however, this is not the case. Under this view, one relevant perspective on Ds is the characterization of the types of evaluation constraints they impose on their variables. It is this perspective that is adopted below.

2.1 Non-quantificational determiners

Adopting the Kamp/Heim view of indefinite descriptions amounts to assuming that their contribution to semantic representation reduces to a variable and a value condition. Accordingly, the semantic representation of [1a] is that in [1b]:

- [1] a. A student left.
 b. x : *student*(x) *leave*(x)

The determiner $a(n)$ introduces x ; the column separates the variable from its value condition, provided by the NP sister of the D. The interpretation of this NP gives its value set. The rest of the expression is the main predication, provided by the rest of the sentence. As mentioned above, I am assuming here more structure within the list of conditions than is customary in DRT or in FCS in that I am separating the role of the descriptive content from that of

predicates but otherwise [1b] corresponds straightforwardly to a DRT box whose universe is made up of x or to a file F consisting of an 'index' x and conditions on it. In what follows the term 'expression' is essentially equivalent to a file in FCS or a DRS in DRT.

The existential force of the indefinite in [1a] is a consequence of the truth definition of expressions, given in [2]:

- [2] An expression ϕ is true in a model M relative to an assignment function g iff there is a (possibly trivial) extension f of g that embeds (satisfies) ϕ in M .

For now it suffices to assume an extensional model consisting of a set of entities E , a set of assignment functions H , and a function $\| \cdot \|$ assigning extensions to predicates. Assignment functions are partial functions from variables to entities in E . A function f extends g relative to x iff f is defined on x and f and g agree on all values assigned to variables other than x .

A function f that embeds an expression ϕ relative to M will be called an *input function* for ϕ . A function f embeds ϕ relative to M iff it meets the conditions in ϕ . Such a function has to be defined on all the variables in ϕ and has to assign them values from their respective value sets. Furthermore, these values have to meet whatever further condition main predications impose on them. In [3] I give the general form of the embeddability condition of a simple expression ϕ whose universe consists of a set V of n variables, a set C_n of value conditions on the variables in V , and a main predicative condition consisting of an n -ary predicate P whose arguments are the variables in V .

- [3] A function f embeds ϕ iff f is defined for all variables in V , $f(v)$ meets the relevant value condition for every $v \in V$, and $P(f(v_1), \dots, f(v_n)) = 1$ in M .

The truth conditions of [1b] are as in [4]:

- [4] The expression in [1b] is true in M relative to g iff there is a function f that extends g on x such that $f(x) \in \|student\|$ and $leave(f(x))=1$.

The set of functions that assigns values to a variable x in the formulation of the embeddability condition of an expression ϕ in which x occurs will be referred to below as the *set of evaluation functions* of x . The functions in this set are required to meet the value condition on the variable in question.

Going now back to [1b], the set of evaluation functions of x is a singleton set whose element is the input function f . The effect of the DP *a student* on this function is to constrain it to assigning to x a value from the set of students. This is the minimal effect a descriptive argumental DP may have. The existential force associated with this DP is the result of the existential requirement that figures in the truth conditions of the expression in [1b]. If there is an initial function f that embeds [1b] relative to M , there will be an individual in E who is in the intersection of the set of students in M and the set of entities who left in M . This is truth-conditionally equivalent to what we would get were we to treat the indefinite as a generalized existential quantifier. Heim 1982 argues that adopting the non-quantificational approach to indefinite DPs (as well as to definites) allows us to capture at least some of their special properties. Building on this view, I claim that the key to the versatility of

interpretation of ordinary indefinites, as well as to their scopal freedom, lies in the absence of any further functional constraints contributed by $a(n)$.

2.2 Quantificational determiners

Under the 'classical' DRT/FCS approach to quantification, the semantic representation of [5] is as in [6], in a notation that abbreviates DRT boxes in a transparent way, and in which the column is used as above, to separate a variable from its value condition.

[5] Every man left.

[6] $[[x: man(x)]_R \forall_x [leave(x)]_{NS}]_\phi$

The embeddability condition imposed by [6] on an input function f is given in [7], in the version of restricted quantification adopted here, under which universal quantification is not treated in terms of material implication.

[7] A function f embeds ϕ in M iff every extension f_x of f on x that embeds R in M is such that NS is true relative to f_x in M .

The condition in [7] amounts to requiring every extension f_x of f that embeds R to have a (possibly trivial) extension f_x' that embeds NS .

The crucial feature contributed by a quantified expression ϕ is that in order for an input function f to embed it, properties of certain extensions of f relative to the variable(s) bound by the quantifier become relevant. The expression R plays a restrictive role in that it narrows down the set of relevant extensions of f on x to those that embed R . These functions will be called below *auxiliary functions*. The auxiliary functions are introduced by the quantificational D in the sense that they become relevant to the interpretation of ϕ as a consequence of the presence of *every*. R serves to define the relevant auxiliary functions in the sense that it determines which extensions of f on x are in the relevant set of auxiliary functions. The elements of the set of auxiliary functions thus introduced play the role of input functions for NS .² Crucially then, in the case of quantified expressions, the expression in NS has to be true not relative to the input function f but rather relative to auxiliary functions that extend f on the variable(s) bound by the quantifier and which embed R . Different quantifiers determine how many (or what proportion) of the auxiliary functions have to have extensions that embed NS .

At the representational level, *every* contributes the variable x and the universal quantifier binding it, as well as the splitting of the expression into the two parts, R , and NS . The

²The formulation of embeddability conditions for quantificational expressions in general and for universals in particular that is adopted here follows the spirit of Lewis 1975 and of restricted quantification. A welcome consequence of this approach is that universal quantification does not have to be treated as involving material implication and therefore such expressions are not automatically true in case there is no auxiliary function that embeds R , i.e., in case the expression following the column in R denotes the empty set. Restricted quantification circumvents the problems raised in Heim 1982 and Reinhart 1997 concerning the 'in situ' interpretation of wide scope indefinites occurring in the antecedent of a conditional. That problem is also circumvented by choosing a Lewis-style analysis of conditionals.

NP sister of *every* contributes the value condition on x , in the same way as with non-quantificational DPs, with the important difference that this condition forms now the R of a quantificational structure. The rest of the sentence contributes a main predication, as before, with the important difference that this expression forms now the NS . In the FCS terms of Heim 1982, the two subordinate structures, R and NS , are the two auxiliary files built in the course of determining the embeddability conditions of a quantified formula.

Going now back to the constraint theory of determiners, note that one can characterize the effect *every* has on the interpretation of x directly, in terms of its effect on deciding the evaluation functions of x . In order to do this, let us first define the notion of a maximal set of functions extending a function f on x relative to a value condition C as in [8]:

- [8] F_x is a maximal set of extensions of f on x relative to a value condition C specifying a value set S iff $\forall f_x \in F_x, f_x$ extends f relative to x and f_x meets C , and for every $s \in S$, there is an $f_x \in F_x$ such that $f_x = s$, and for every two functions $f_x, f_x' \in F_x, f_x(x) \neq f_x'(x)$.

The functions in F_x give x all the values in its value set in turn making x range exhaustively over its value set. Now let f be the input function of an expression ϕ , x be the variable contributed by *every*, R be an immediate constituent of ϕ contributed by the NP sister of *every* and F_x be the maximal set of functions extending f on x relative to R . The effect *every* has on the embeddability requirements of f relative to x is given in [9].

- [9] *Requirement contributed by every*
For every $f_x \in F_x$, NS is true relative to M and f_x .

The functions in F_x are the auxiliary functions introduced by *every* and established on the basis of the denotation of R . These functions serve as input functions for NS .³ The expression in NS has to be true relative to the functions in F_x . Consequently, each function in this set has to have a possibly trivial extension f_x' that embeds NS . This set of functions will be denoted below by F_x' . Given an input function f and an expression of the form in [6], the set of evaluation functions for x are the functions in F_x ; the evaluation functions of new variables in NS are the functions in F_x' .

More generally now, the effect of a quantificational DP on an input function f is characterizable as in [10].

- [10] *Quantificational effect*
A D introducing a variable x has a quantificational effect on an input function f iff D triggers the introduction of auxiliary functions F_x extending f on x maximally with respect to the value condition contributed by the sister of D.

³In FCS terms, [9] is equivalent to the satisfaction conditions of a quantified formula which rely on using R to build an auxiliary file that serves as input file for NS . The treatment of quantificational DPs sketched here incorporates two indexing requirements of Heim 1982, Ch. III: the requirement that a quantificational D is coindexed with the DP in which it originates, and the requirement that the index of a quantificational DP be novel.

Variables introduced by quantificational determiners range over their value set. A quantificational D introducing a variable x requires the evaluation functions of x to be a subset of F_x . This is a constraint on evaluation functions imposed by all quantificational Ds. Constraints on how a variable is to be given values will be referred here as *functional constraints*. Quantificational Ds impose a functional constraint on the variable they introduce requiring it to range over its value set. They affect the evaluation of the rest of the sentence, the *NS*, by requiring it to be true relative to a subset of the functions in F_x .

Characterizing *every* as was done above is truth-conditionally equivalent to its generalized quantifier treatment (modulo issues connected to what happens when the value set is empty). This approach is justified if it turns out that characterizing various Ds in terms of evaluation constraints in general (and functional constraints in particular) is independently needed. The discussion below is meant to provide evidence for the claim that such conditions are crucial to understanding various indefinite determiners in English.

2.3 Indefinites revisited

A characteristic feature of the indefinite article $a(n)$, I claim, is that it imposes no functional constraints on the variable it introduces. It is this property that is responsible for its well-known versatility of interpretation. $A(n)$ indefinites may occur within the scope of modals, other quantificational DPs, generics and negation, and are well-known for the ease with which they scope out of embedded constructions. I briefly consider here co-varying indefinites, and indefinites within the scope of generics and negation. The issue of wide scope indefinites will be touched upon only in passing.

2.3.1 Dependent (co-varying) indefinites

The indefinite in [11] may be interpreted within or outside the scope of the quantificational DP.

[11] Every student read a poem by Emily Dickinson.

Under the former reading the indefinite co-varies with the variable introduced by *every*, while under the latter reading it does not. Let us assume that f is the input function, the DP *every student* introduces a variable x and the set of functions F_x defined as above, and that the indefinite introduces y and a value condition. The co-varying reading arises if the functions in F_x' that embed *NS* extend those in F_x relative to y . In this case y is given values by the functions in F_x' . Under the wide scope reading, the evaluation function of y is the initial function f , and therefore the functions in F_x and F_x' agree on the value given to y . Theories of scope differ with respect to what property of an expression determines the functional fate of such DPs. Structural theories of scope differ with respect to the level assumed to be relevant. In LF based approaches, it is syntactic structure that ultimately determines the functional fate of indefinite DPs. In DRT, on the other hand, it is the structure at the level of DRS that is crucial. In the non-structural approach proposed in Farkas 2000 and earlier work, semantic representation underdetermines the functional fate of a variable introduced by a non-quantificational DP. Such variables may be given values by any function (or set thereof) made available by their linguistic environment. In the case at hand, the ambiguity is due to the fact that for a variable y introduced in *NS* both the initial function f and the

functions F'_x are possible evaluation function choices.⁴ Nothing in what follows crucially depends on the choice between what theory of scope one chooses. What is important for current purposes is that the freedom of scope of these indefinites is connected to the lack of functional constraints associated with the article $a(n)$. Because of this freedom both f and F'_x are acceptable evaluation functions for y .

2.3.2 Generic indefinites

As is well-known, indefinites whose D is $a(n)$ have generic readings, illustrated in [12]:

[12] A seagull is intelligent.

I assume that the generic reading of the indefinite here is due to the variable introduced by the indefinite being 'unselectively' bound by an implicit adverb of quantification, GEN. The semantic structure of [12] then is along the lines of [13].

[13] $\text{GEN}_x [x: \textit{seagull}(x) \textit{intelligent}(x)]$

In the framework assumed here, GEN is an operator that introduces a set of auxiliary functions G , ranging over default values of the variable(s) it binds. If GEN is assumed to unselectively bind the variable introduced by the indefinite, the functions in G must extend the input function relative to the variable in question. These functions then serve as evaluation functions for this variable and make it range over default elements of its value set in the same way in which variables bound by universal quantifiers range over *their* value sets. In the case of indefinites bound by GEN, the set of auxiliary functions introduced by the GEN operator are functions that extend the input function relative to the variable introduced by the indefinite, just as in the case of variables contributed by quantificational DPs. Unlike the latter, however, the quantifier that binds them is not contributed by their own D. In this respect they are like co-varying indefinites: their evaluation involves a set of auxiliary functions introduced by an element other than their own D. They are unlike co-varying indefinites, however, in that their effect on the input function is the same as that of a variable introduced by a quantificational DP.

2.3.3 Indefinites within the immediate scope of negation

Indefinites within the immediate scope of negation, exemplified in

[14] Mary didn't buy an apartment in San Francisco when she could have afforded it and now it is too late.

are similar to those in the scope of GEN in that they are made to range over their value set because of the effect of the operator in whose scope they find themselves. In current terms, this is because the embeddability conditions of a negative expression such as the one in [15] are as given in [16]:

[15] $[\neg \phi']_\phi$

⁴Allowing this freedom of interpretation for an indefinite can also be achieved by allowing it to be bound at long distance by an existential quantifier inserted at any point in the structure. This is what is proposed in Reinhart 1997 for choice functional indefinites.

[16] A function f embeds ϕ iff no extension f' of f on the variables in the universe of ϕ' embeds ϕ' .

In this case f is the input function of both ϕ and ϕ' . The auxiliary functions f' are introduced by the negative operator. Since these functions extend the input function relative to the free variables in ϕ' , these variables are interpreted in a way that is analogous to variables bound by a universal quantifier. Assume the variable introduced by the indefinite in [14], y , is new relative to f . The functions that ϕ' is evaluated by are the set of auxiliary functions F_y' that maximally extend f on the value set of y . These are the evaluation functions of y . Unlike universal quantification, however, these functions are introduced by the negative operator, rather than by the D of the DP. In the two last cases discussed here the values of the variable introduced by the indefinite range over the value set in a manner similar to what happens when the D is quantificational. The crucial difference is that the relevant auxiliary functions are introduced not by the D of the DP but rather, by an operator in whose semantic scope the DP finds itself. Because of the effect of the operator, these variables do not have the default existential force they have elsewhere.

2.3.4 Definites and indefinites

In DRT and FCS both definites and indefinites are non-quantificational, i.e., they involve no introduction of auxiliary functions and no particular functional constraints. The distinction is cast in terms of novelty/familiarity of the variable introduced. There are various ways in which the familiarity condition could be cast in preset terms but since the issue is not crucial to what follows I will leave it open.

Under a uniqueness view of definites, the requirement contributed by a definite D is that the value set be a singleton. Note that under both views, definiteness distinctions can be seen as evaluation constraints imposed by the D. Under the uniqueness approach, the constraint concerns the value set. Under the familiarity approach, it concerns the status of the variable relative to the input function.

Independent of the choice between these two approaches, there is the issue of whether indefinites are to be treated as marked for novel (or non-unique) reference, or whether they can be treated as the unmarked member of the pair. Here I follow Hawkins 1991 and assume that indefinites are unmarked with respect to the definiteness distinction. The choice between the familiarity and the uniqueness view of definites is immaterial for the purposes of this paper.

2.4 Summary

So far we have separated the contribution of an argumental DP to semantic representation into the contribution of the D and the contribution of the NP. The latter is constant across types of DPs: it always contributes a value condition. The constant contribution of the D is a variable. In addition, particular Ds may impose, as part of their lexical specification, various further constraints concerning the interpretational fate of the variable they introduce. Under this view, quantificational Ds are special in that they involve, at the interpretational level, the introduction of a set of auxiliary functions. Their effect is to cause the variable introduced by the D to be given a series of successive values from its value set. These functions then serve as input functions for the rest of the sentence. If this view of Ds is relevant

to natural language we expect it to help us understand the way various Ds function within and across languages. In the next section evidence is presented that this is indeed the case.

3. Marked indefinites

3.1 Unmarked vs. marked indefinites

We have seen above that a D may encode a functional constraint on the variable it introduces, a constraint concerning the nature of the functions involved in the interpretation of the variable in question. Functional constraints could be further subdivided into 'update conditions' and 'anchoring conditions'. Update conditions involve constraints on the nature of the effect the D has on the input function and is crucial in distinguishing quantificational from non-quantificational Ds. Quantificational Ds necessarily introduce a set of auxiliary functions extending the input function on the variable they bind. In the absence of any special circumstances, i.e., when they are not 'roofed' by negation or an operator like GEN, non-quantificational Ds simply require extending the input function on the variable they introduce, which results in default existential force. We come back to anchoring conditions below when we discuss indefinite *this*. The crucial constraints concerning *some* and *a certain* turn out to be different from these in that they involve the nature of the connection between the variable and the model and will be referred to as 'model conditions.'

Before turning to various special indefinites in English, however, I characterize the technical notion of *unmarked* indefinite, illustrated by English *a(n)*. An unmarked D has no associated evaluation constraints (beyond those imposed by morphological number). A variable introduced by such a D will only be constrained by the value condition and by whatever constraint morphological number imposes. English *a(n)* is unmarked in this sense. The freedom of interpretation of *a(n)* DPs illustrated above is due to the absence of functional constraints associated with it. The unmarked nature of *a(n)* is also responsible for its occurrence with predicate nominals, illustrated in [17]:

[17] Mary is a doctor.

Predicate nominals do not introduce a variable. The D here is expletive, i.e., its presence is due to a syntactic requirement. The choice of expletive determiner, unsurprisingly, falls on the least marked determiner in the language, which is compatible with the morphological requirements of the phrase. In the rest of this section we examine properties of some marked indefinites in English. Their marked status explains why they occur in a subset of the environments in which unmarked *a(n)* indefinites are found. In understanding how marked indefinites differ from the unmarked one, we are faced with two related issues: (i) the question of whether existential force has to ever be imposed independently of other constraints, and (ii) the issue of understanding the distributional constraints various DPs are subject to.

3.2 Singular *some*

I start with the determiner *some*. *Some* appears to be insensitive to the mereological structure of the value domain, occurring in count singular and plural DPs as well as in mass ones. Here I deal only with the singular version, leaving the connections with the plural and the mass determiner open.

3.2.1 Freedom of scope

Some DPs, just like their $a(n)$ sisters may co-vary with variables introduced by other DPs. In [18], the *some* DPs may be interpreted as co-varying with Sundays, lives, and searches respectively.

- [18] a. Every Sunday they chose some hymn that was out of their range. (Garrison Keillor’s Prairie Home Companion broadcast 04/14/01)
 b. Each life converges to some center.
 c. In target of opportunity cases the department identifies some candidate they want and they offer the position without a search.

In fact, *some* often substitutes for $a(n)$ when a narrow or indermediary reading of an indefinite is meant. The ease with which *some* takes narrow scope is evidence that it could not be treated as a ‘choice functional’ indefinite in the sense of Kratzer 1998. For Kratzer 1998 and Matthewson 1999 choice functional indefinites are contextually bound and take widest scope. The fact that *some* DPs cannot be treated as contextually bound is further supported by the examples in [19], where the *some* DP can easily be interpreted within the scope of the dispositional predicate *hate* and the intensional predicate *want*, just as an $a(n)$ DP would be.⁵

- [19] a. I hate imagining you lying there alone, in some godforsaken hospital.
 b. I want to get some book about St. Petersburg because we are going there soon. What do you have in stock?

Some DPs, unlike *ku-* marked nominals in Lillooet Salish discussed in Matthewson 1999, may also be scopally specific, i.e., they may occur when not in the scope of an operator or quantifier. The sentences in [18a,b] may also be interpreted with *some* outside the scope of the quantificational DP. In [20], *some* is appropriate even though there is no quantifier or operator for it to be in the scope of:

- [20] Mary came to the party with some undergraduate she had met the day before.

Note next that just as in the case of $a(n)$, if not more so, the ‘upward’ scope of *some* indefinites is unlimited. In [21] we see such an indefinite scoping out of an island:

- [21] Keith decided to buy every album that was published by some famous Hungarian photographer.

There are three scopally distinct readings of this sentence. (i) Keith may have decided on a particular such photographer, say, Brassai. Here the indefinite has widest scope. (ii) Keith may have decided to choose one such a photographer (one of, say, Brassai, Moholy-Nagy, Capa, and Hervé) though he has not yet decided which, and buy every album published by him. Here the indefinite has intermediate scope. Under this reading the sentence can be continued by [22].

⁵Assuming that the narrow scope readings of *some* are due to the presence of implicit arguments of a wide scope choice function, as proposed in Kratzer 1998, would not help with these examples. We come back to this issue when discussin *a certain*.

[22] He has not yet made up his mind whether to choose Brassai, Moholy-Nagy, Capa or Hervé.

(iii) Finally, ambitious (and rich) Keith may have decided to buy every album that was published by Brassai, Moholy-Nagy, Capa and Hervé. Here the indefinite has narrowest scope. Under the first two readings, the DP headed by *some* scopes out of an island. The intermediate reading of the indefinite is particularly interesting because, in the given context, it cannot be analyzed as a narrow scope singleton indefinite. The sentence, therefore, raises doubts concerning Schwarzschild's 2001 otherwise attractive solution to exceptional wide scope indefinites, according to which such DPs can always be amenable to a narrow scope singleton indefinite treatment.

I conclude that the upward scope possibilities of *some* do not distinguish it from $a(n)$: unlike quantificational DPs, they scope freely out of embedded clauses and islands.⁶ With respect to freedom of upward scope then, *some* DPs are like their $a(n)$ sisters, and unlike quantificational DPs. In present terms, the freedom of scope of both types of indefinites can be reduced to the same source: the lack of constraint on what their input function is.

3.2.2 Existential quantificational force

As noted by Langacker 1991, *some*, unlike $a(n)$ has no generic interpretation:

[23] A/*Some seagull lays eggs in the sand.

The special determiner here is $a(n)$: all other singular indefinites in English are like *some* in this respect. None of the versions of [24] may be interpreted generically.

[24] A certain/this/one seagull lays eggs in the sand.

Substituting *any* for a does not preserve the generic reading either.

The facts examined so far lead us to the conclusion that *some* DPs are free scope existentials. They scope freely, just like $a(n)$ indefinites but they must have existential force and therefore resist unselective binding. How can such indefinites be treated with the theoretical tools we have? One option is to treat them as existential quantificational expressions, on a par with universals. Under this treatment, however, their freedom of scope remains a mystery. Another option is to treat them as Reinhart-style choice functional indefinites. Recall that in Reinhart 1997 choice functions are freely bound by existential quantifiers inserted freely at LF. Under this treatment, the stubborn existential force of *some* indefinites is the result of the assumption that only existential quantifiers can be freely inserted. The freedom of scope of these indefinites is the result of the assumption that choice functional variables have exceptional binding properties. The problem with this treatment is that neither of these two assumption is independently motivated.⁷

⁶In Farkas 2000, the upward scopal limitations of quantificational DPs are connected to their functional effect. Distributive readings of plural DPs have the same functional effect as universally quantified DPs, and therefore are correctly predicted to scope like them.

⁷For a critical discussion, see Geurts 2000. Returning to an unbounded upward QR, the solution Geurts favors, is not particularly attractive either.

In current terms, *some* indefinites differ from their unmarked $a(n)$ sisters in that the only possible effect they may have on an input function is the default, existential one, characterized along the lines of [25]:

- [25] A D introducing a variable x has an existential effect on an input function f iff the requirement it contributes is that $f(x)$ be in the value set of x .

Requiring a non-quantificational DP to be existential, in current terms, amounts to preventing it from ranging over its value set, i.e., preventing it from occurring as a subscript on functions that give it values. A variable in ϕ will be said to occur existentially if it has an existential effect on the embeddability conditions of ϕ .

The quantificational force of *some* DPs can be seen as a result of their being subject to the constraint in [26].

- [26] *Existential effect constraint*

A variable x introduced by *some* whose input function is f must have an existential effect on f .

The unmarked indefinite $a(n)$ and the null determiner of bare plurals are not subject to this constraint. We see below that the existential effect of (*a*) *certain* and indefinite *this* is a consequence of other constraints they impose. *Any*, on the other hand, is special in requiring a context that forces it to range exhaustively and disjunctively over its value set.

3.2.3 Interaction with negation

The issue of the interaction of *some* with negation is quite complex. The received wisdom concerning *some* DPs is that, unlike their $a(n)$ sisters, they must scope outside negation, i.e., they are P(ositive) P(olarity)I(tems). Indeed, the indefinites in [27] may only have wide scope relative to negation.

- [27] a. Mary didn't buy some apartment in San Francisco when she could have afforded it and now it's too late.
b. I haven't seen some article on this problem since the early seventies.
c. *There isn't some Al Qaeda leader waiting in the wings to take over after Bin Laden is eliminated.

As noted in Ladusaw 1980, for instance, the restriction concerns a clause-mate negation, since *some* in examples like [28] needn't have widest scope:

- [28] Mary doesn't think that Sue read some recent article on this problem.

One possible solution is to assume that *some* is subject to a syntactic prohibition against being c-commanded by a clause-mate negation, a prohibition that it escapes by moving higher in the structure and thereby acquiring wide scope. Szabolcsi 2001 notes, however, that the fact that *some* must scope over *without* clauses casts doubt on the purely syntactic nature of the constraint. Note also that *some* DPs cannot occur within the scope of negative verbs such as *prevent*:

[29] Diplomacy prevented a/*some war.

Reversing the perspective and assuming that *some* is propelled up the syntactic tree by a wide scope requirement independent of negation is problematic given the facts in [18] and [19] above. Treating *some* as a Reinhart style existential (or an ordinary existential for that matter) wouldn't shed any light on its PPI status, since there is no reason why existential quantifiers could not occur within the immediate scope of negation or *without* clauses.

Note now that the existential requirement in [26] accounts for [27] straightforwardly. Recall that a variable within the immediate scope of a negative operator is made to range over its value set by the effect negation has on the expression in its scope. The same holds for the effect of other 'negative' expressions such as *without*. The 'clause-mateness' condition could be made to follow as well given that the indefinite in the embedded sentence in [28] can be assumed to have a default existential effect on functions introduced by the embedding predicate *think*.

The picture is further complicated, however, by the observation made in Szabolcsi 2001 that the constraint of *some* against occurring within the scope of a clause-mate negation is less tight than hitherto assumed. First, note that *some* may occur within the scope of a clause-mate negation in 'denial' contexts, as in [30] (Szabolcsi's [7]):

[30] A: He found something.

B: Wrong! He DIDn't/DID NOT find something.

Next, Szabolcsi notes that *some* may occur within the scope of a clause-mate negation in examples such as [31] (Szabolcsi's [37]-[41]).

[31] If we don't call someone we are doomed.

Every boy who didn't call someone was in trouble.

Only John didn't call someone.

Few boys didn't call someone.

Few boys thought that John didn't call someone.

Szabolcsi's generalization is that *some* is allowed within the scope of a clause-mate negation only in anti-additive contexts, contexts that otherwise license an NPI. Below I examine further cases of *some* within the scope of a clause-mate negation which do not fit this generalization and suggest a possible way of looking at these facts. Turning these suggestions into a proposal is, however, beyond the scope of this paper.

Confining our attention to relative clauses, consider the examples in [32]:

[32] Every/most/exactly 10 student(s) who did not contact some faculty member by their fourth quarter had trouble finishing their QP on time.

These sentences are ambiguous between a (preferred) reading under which *some faculty member* is within the scope of negation, and a reading where it has widest scope. We do not, however, get a reading where the indefinite is within the scope of the universal and outside the scope of the negation. Note that the fact that the variants with *most* and *exactly 10*

do not contrast with the variant with *every* is problematic for the generalization mentioned above because these Ds are not anti-additive (and do not license NPIs).

Consider next [33]:

- [33] Every/most/exactly 10 student(s) who did not pass some section of the comprehensive exam had trouble graduating.

This time, the sentence is ambiguous between a widest scope reading for *some* and one where *some* has intermediate scope, between the quantifier and the negative. Under this (preferred) reading, the students who are claimed to have had trouble graduating are those who failed one (or more) sections of the exam.⁸ In [34], the only reading we get is one where *some* is within the scope of negation but crucially, leaving the complement unembedded would result in ungrammaticality, as seen above.

- [34] They want to make sure there isn't some Al Qaeda leader waiting in the wings to take over after Bin Laden is eliminated. (NPR, Morning Edition, 12/10/01).

What could the difference between [32] and [33] be due to? An obvious difference is that students are expected to contact one faculty member, and are not expected to contact them all, but they are expected to pass all sections of the comprehensive exam. The relative clause in both examples can be seen as functioning as a test or criterion for dividing the set of students into two subsets, those who satisfy a classificatory criterion and their complement set. What the classificatory criterion is in each case depends on what is pragmatically relevant. In [32] the criterion is whether there is a faculty member the student contacted before the fourth quarter. The set denoted by the NP sister of the quantificational D can be characterized as the complement of those for whom there is such a faculty member. Negation here appears to function as an 'outer' negation, defining the complement of a set of cases for which *There is some faculty member y that x contacted* holds. The intermediate reading of *some* would be given were we to choose as a classificatory criterion the question of whether there is some faculty member *y* that *x* did not contact, a pragmatically irrelevant criterion. In [33] on the other hand, the criterion is whether there is some section of the exam the student did not pass, and the descriptive content denotes the set of students who meet it. Negation here appears to function as 'inner' negation, being part of the criterion. Crucially, however, the indefinite is outside the scope of the negation in this case. In the case of [34], note that the semantics of *want* proposed in Heim 1992 involves a classification of situations or worlds. The negation in [34] can be interpreted as an 'outer' negation, determining the complement of worlds in which it holds that there is some Al Qaeda leader waiting in the wings. These remarks suggest that *some* appears to scope within a clause-mate negation only in case the negative can be interpreted as an 'outer' negation identifying the complement of cases where the positive version of the sentence holds. This would explain why *some* may not scope within negation in ordinary unembedded sentences except in cases of denial. The crucial difference

⁸The reading where *some* has narrow scope with respect to negation is available for this sentence only if *some* bears special stress. This case will not be considered here.

between 'inner' and 'outer' negation is that the latter necessarily involves considering cases where the expression in the scope of negation holds. Turning these suggestions into a proposal is a task I leave for future research. I will only note here that relying on 'outer' negation may help us save the generalization that *some* cannot introduce a variable that is in the immediate scope of the negative operator, and the account we suggested for it.

3.2.4 Further properties

I turn now to a discussion of further properties of *some*, which are not directly connected to scope or to quantificational force. First, note that $a(n)$ is unique among the singular Ds examined here in occurring with predicate nominals:

[35] Mary is a/*some/*a certain/*this doctor.⁹

I assume that this is explained by the expletive nature of the D in predicate nominals and the marked nature of all singular Ds other than $a(n)$.

Note next that *some* DPs are like their $a(n)$ sisters in that they may occur as pivots in existential *there* sentences:

[36] There's a/some mistake here somewhere, but I don't know where.

Relying on the weak/strong distinction for separating $a(n)$ from *some* would therefore not be possible. Unlike $a(n)$ DPs, however, *some* DPs are not felicitous in sentences asserting existence: an atheist or an agnostic would announce a change of position by uttering [37a] rather than [37b].

- [37] a. There is a God after all!
b. *There is some God after all!

Some contrasts with $a(n)$ in 'existential' *have* sentences as well:

[38] Mary has a/*some brother.

Note, however, that *some* DPs are felicitous in weak existential *have* sentences, where one ascribes a property to an entity whose very existence is not necessarily novel information.

[39] Mary has some cousin whose niece is the wife of Harrison Ford.

Next, note that *some*, unlike $a(n)$, may not occur with pseudo-objects in measure phrases (cf. de Hoop 1995):

[40] John walked a/*some kilometer.

⁹I am ignoring here the evaluative use of *some* illustrated in E. B. White's *He is some pig*, pronounced with stress on *some*.

Finally, note that *some* DPs are significantly worse than their *a(n)* counterparts as objects of strong 'coming into existence' verbs like *give birth to* or *draw*.¹⁰

- [41] Mary gave birth to a/*some boy yesterday.
Mary drew some a/*some circle yesterday.

One possible hypothesis at this point would be to assume that *some* imposes a value set condition requiring it to be non-singleton (the opposite of what *the* imposes under the uniqueness theory). The non-singleton hypothesis will not work, however, given examples such as [42], adapted from Schwarzschild 2001:

- [42] a. Samantha came to the party with some guy she had married the night before.
b. Everybody wanted to see some movie that Phil had claimed was the best ever made.

The fact that *some* is felicitous in these sentences in the absence of an assumption that Samantha is given to polygamy or that Phil uses superlatives lightly shows that the non-singleton condition is too strong.

These examples lead us to a further property of *some* DPs, namely that they are sensitive to how one tells apart the entities assigned as values to its variable. The versions of [43] with *some* are marked. They seem to convey that the identity of the particular fly (or cab) matters.

- [43] a. Oh look! There's a/#some fly in my soup!
b. A/#some cab will be waiting for you at the airport.

Although the identity of the particular entity that is to serve as value for the variable introduced by *some* has to be in principle relevant, Israel (ms) observes that using *some* commits the speaker to *not* providing identifying information. He notes that [44b] is infelicitous as a continuation of [44a]:

- [44] a. Susan rented some movie for us to watch yesterday.
b. It was *The Maltese Falcon*.

Here the speaker is not necessarily assumed not to know what the movie was, but her use of *some* appears to commit her to not providing the value.¹¹ In the 'absent-minded' use of *some* illustrated in [45],

¹⁰With other verbs the restriction is less marked:

(i) Mary is writing some letter in the other room.

The verb *write* is a weaker 'coming into existence' verb than *give birth to*. Note the contrast between *There's a letter I'll have to write this afternoon* and *?There's a boy Mary'll give birth to this afternoon*. My understanding of the various subtypes of verbs of coming into existence is not sufficient to go into the relevant details.

¹¹This type of commitment is, of course, not binding. The speaker may well change her mind and decide that it is worth telling her audience what the movie was, after all.

[45] I put this paper in some drawer but now I don't remember which.

the speaker used to possess identifying information concerning the entity to be assigned as value to the variable introduced by *some* but no longer does so.¹² This underspecified character of *some* is responsible, I claim, for its ability to acquire a derogatory flavor. When used derogatorily, *some* conveys that the entity to be assigned as value of the variable it introduces cannot be distinguished from others because it has nothing particular to recommend it, or because the speaker considers such individuation to be irrelevant. The use of *or other* strengthens this aspect of the interpretation of *some*:

[46] Marc wrote some paper (or other) on indefinites and now he considers himself a specialist.

Using the phonologically reduced form, *sm*, strengthens the derogatory flavor or the reduced importance of the particular value choice. Adding *or other* achieves the same effect. Using the stressed version or adding *or other* tips the balance in favor of narrow scope readings when such readings are possible.

3.2.5 Underspecified variables

Common to this array of properties of *some* is the possibility of variation with respect to the identity of the entity meant to serve as value for the variable *some* introduces. I suggest that *some* imposes an underspecification constraint on the variable it introduces requiring there to be several possibilities concerning the identity of its verifying value. A verifying value for a variable x in an expression ϕ relative to an embedding function f is an entity e such that $h(x) = e$, where h is an evaluation function for x relative to f . This notion is defined in [47]:

[47] If x is a variable in ϕ and f is an input function for ϕ , h is an evaluation function for x relative to f iff h is a (possibly trivial) extension of f that assigns values to x as part of the embeddability conditions of ϕ relative to f .

In case x occurs unembedded in ϕ , its evaluation function is f . If it is bound by a quantifier, its evaluation functions relative to f will be the functions in F_x . To make these observations more precise, we have to make room for possibilities by intensionalizing the model. We assume then that expressions are interpreted relative to a model M that includes a set of worlds W , a set of entities E and that the interpretation function has a world index. Consequently, interpretations are assigned to predicate constants relative to worlds in W . Truth (and therefore embedding) conditions have to be made sensitive to worlds. In simple cases all that will be required is relativization of the truth of an expression to a world w , and w occurs as the modal index on the interpretation function of the predicates in ϕ . Intensional predicates or modals affect the world index of expressions in their scope.

Following Abusch and Rooth 1997 (which is based on Groenendijk, Sotkhof and Veltman 1996), a possibility for an expression ϕ is a pair consisting of a world w and an assignment function g such that g embeds ϕ relative to w . Given an expression ϕ and a model M , the possibilities of ϕ relative to M are a set of such world assignment pairs. A variable in ϕ

¹²Identifying information is information that enables one to tell apart the entity in question from all others.

will be underspecified iff there are several entities e in E that are possible values for x . This means that there are several possibilities that differ crucially only with respect to what the verifying value assigned to x is. More formally, the condition is as in [48]:

- [48] A variable x in ϕ is underspecified iff there are possibilities $\langle w, g \rangle, \langle w', g' \rangle$ for ϕ such that h and h' are evaluation functions for x relative to g and g' (possibly identical to g and g') and the only relevant difference between the two possibilities is that $h(x) \neq h'(x)$.

These possibilities are *i*-alternatives in the sense of Dayal 1998 and Farkas 1985. The set of possible values for an underspecified expression is the set of values assigned to it by its evaluation functions in the various possibilities.

Note that a variable may be underspecified even if its value set is a singleton, as long as no identifying information has been provided concerning the entity in question. In *We watched a/some movie that Phil said was the best ever made* there may be a single movie about which Phil said it was the best ever made and yet, unless we know more about this movie, there are lots of movies each of which could be the verifying value for the variable introduced by the indefinite.

A variable may be underspecified at a certain point in the discourse and be specified at a later point. If the variable becomes specified at a later point in the discourse, the possibilities consistent with the discourse at that point no longer differ as to the identity of the verifying value of the variable in question. The use of *some* marks the variable introduced as underspecified at the current stage in the discourse but it also signals that, as far as the speaker is concerned, it will stay underspecified in the future. To make this latter property precise one has to enlarge one's notion of context in ways suggested in Gunlogson 2001. The basic idea is that the current state of the discourse determines not only its own context set (or set of possibilities) but also a set of future discourses (each with its own set of possibilities) that are projected continuations of the current discourse. Making this more precise is beyond the scope of this paper. Here I will assume that projected possibilities are sets of context sets and that the contribution of a speaker to the current discourse affects not only the current discourse but also the projected future states of the discourse. I suggest that the use of *some* marks stable underspecification in the sense of [49], where ϕ is taken to be the semantic representation of the current discourse:

- [49] *Condition contributed by some*

The variable introduced by *some* is underspecified in ϕ and stays so in the set of future continuations of ϕ that the speaker projects.

This condition is a functional condition just as the condition on *every* in that it constrains evaluation properties of the variable introduced by the D. It is special, however, in two respects. First, it concerns the relation between the expression and the model. Second, it concerns not only the present state of the discourse but also what is to be expected in the future. Current theories of discourse are not equipped yet to model this type of condition.

Note that a variable may be projected to stay underspecified as far as the speaker is concerned either because the speaker possesses no identifying information about the verifying value (which is the case of epistemic non-specificity), or because, although in possession of such knowledge, the speaker does not judge it relevant to go on and provide it (as in the case of derogatory uses of *some*), or because no such identifying knowledge can be provided even in principle (as in the case of *some* DPs within the scope of *want* or dispositional predicates.)

Note that co-variation is consistent with underspecification (stable or otherwise). In fact, since co-variation involves a set of verifying values, being underspecified may be seen as befitting co-varying variables more than widest scope ones. If there is a single article that every student read, knowing which article it is involves having identifying information about a single entity, the article in question. If, on the other hand, there is co-variation between students and articles, knowing which article each student read involves having identifying information about a series of articles, one for every student. This special informational load involved in identifying the reference of co-varying variables is responsible, I think, for the ease with which co-varying indefinites are taken to be underspecified and for the ease with which *some* occurs in such cases, often with the effect of tipping the interpretation in favor of the co-varying reading. Nothing forces, however, a widest scope DP not to be underspecified and therefore we avoid predicting that *some* DPs must have widest scope. Widest scope *some* DPs are special in that although the speaker might be expected to provide identifying information about their verifying value, the use of *some* signals that she will not do so.

The claim made here is that the choice of *some* over *a(n)* highlights the present and future underspecified nature of the verifying value of the variable it introduces. The fact that *some* is often used to mark 'epistemic non-specificity' is of course consistent with this claim. In epistemically non-specific cases there is uncertainty on the part of the speaker with respect to what the verifying value is.

The underspecification condition *some* imposes explains its non-occurrence with measure phrases: as a measure, there is only one mile in the model, and therefore there is no way *some mile* can be underspecified.¹³ In the case of the reformed agnostic's or atheist's [37], *some* is again inappropriate because prior assumptions rule out a model where there is a set of several entities each of which could serve as verifying values for the discourse referent introduced by *some*. The requirement of the prior existence of these possible verifying values is what makes *some* DPs inappropriate as direct objects of *give birth to*. The underspecification condition requires us to assume the existence of several individuals that could in principle have been given birth to. This is what renders *some* DPs inappropriate for asserting existence (unless bearing special stress) and explains the contrast between [50a] and [50b]:

- [50] a. Mary was depressed for some reason (and could not go to the party that night).
b. Mary was depressed for a reason.

The point of using *some* in [50a] is to highlight that the reason for Mary's depression is not being distinguished, in the current conversation, from other possible reasons. The point

¹³In the plural, however, the situation is different: *some miles* is obviously underspecified with respect to quantity.

of using *a* in [50b] is to assert that Mary’s depression was not without a reason.¹⁴ *Some* DPs are felicitous as pivots in existential *there* constructions because what is involved in those constructions is asserting existence of a verifying value in certain circumstances rather than assertion of non-emptiness of the value set. The underspecification condition correctly predicts that *some* DPs will not be appropriate in ‘strong existential assertions’. These involve adding information concerning the membership of entities that form the domain of a world *w*. The claim made by sentences like [37] or sentences such as *Mary has a brother* is that the domain of a world *w* contains an individual with certain properties. These sentences add to the domain of a world in the sense that in order to render the previous context consistent with them the worlds one eliminates are worlds whose domain is a proper subset of the worlds that stay in the new context set. Denying existence, as in the case of expressions within the scope of *without* or *prevent* is also incompatible with the underspecification condition.¹⁵

If *some* is marked relative to *a(n)* and its special contribution is the requirement of stable underspecification, the fact that *a(n)* is preferred in cases such as [43], where identification of a particular entity is irrelevant, is not surprising. If the situation is such that it does not matter which entity of several possible ones is the verifying value, there seems to be little point in choosing a special form to signal that the entity in question is not identified and will stay so. Obviously, Israel’s observation concerning the marked nature of discourses where the speaker adds identifying information concerning the referent of a *some* DP she just used is explained as well. Giving such information signals a change of mind with respect to what the speaker considers information worth giving about the verifying value of the indefinite.¹⁶ The derogatory flavor associated with the use of *some* has its source in the underspecification condition as well: being undistinguishable from others of one’s kind is not a compliment. The occurrence of *some* DPs within the scope of intensional predicates and with the modifier *or other* is consistent with its underspecification requirement. An indefinite within the scope of intensional or dispositional predicates is underspecified in virtue of the semantics of those predicates. Using *some* in these cases may help to signal that the intended reading is the narrow scope one. Finally, note that the stability part of the underspecification requirement makes *some* less specific than *a(n)* because the latter has no effect on what the future status of the variable it introduces might be and therefore may give rise to the expectation that the speaker will go on and give identifying information concerning its verifying value. The

¹⁴The stressed version of *some*, interpreted as *at least one* is closest to asserting existence:

(i) You must have seen *sóme* movie with Humphrey Bogart!

(ii) Mary must have been angry for *sóme* reason. Nobody behaves like that out of the blue.

Stressed *some* appears to be the existential counterpart of free choice *any*. I suggest that it should be interpreted as being in focus and having *no* as its contrasting alternative.

¹⁵It may be that the correct analysis for some of these contexts would render them incompatible with the existential requirement on *some*. It is also important to note that *some* seems to be sensitive to a difference between these negative contexts and intensional predicates such as *want* since it may occur in the scope of the latter but not in that of the former.

¹⁶Note that the discourse in (i) (brought to my attention by Judith Aissen) does not involve such a change of course. The adverb *apparently* keeps the variable underspecified and signals epistemic non-specificity, i.e., the speaker’s lack of certainty as to who the verifying value is:

(i) Some guy called this afternoon. Apparently, he is the father of a classmate of Benny’s.

marked lack of identifying information involved with the use of *some* may explain its use as a modifier of numerals meaning *approximately*:

[51] There were some three hundred people at the rally.

English is not unique in having an indefinite like *some* marked for being more non-specific than the unmarked indefinite. Romanian *vreo*, discussed in Farkas (to appear), and French *quelque* are cases in point. These special indefinites differ from *some* as well as from one another in various ways. They share, however, the property of being marked and therefore imposing a special functional condition as a result of which it is unlikely (or, as in the case of *vreo*, impossible) that identifying knowledge about their verifying value is at hand. Interestingly, they also share the property of being usable with the 'approximate' interpretation in [51]. I leave the question of further typology of these extreme indefinites for future research. For now, I take *some* DPs to involve both the existential condition in [26] and the stable underspecification condition in [49]. It would be desirable, especially in view of what we will see in the case of the existential requirement of a *certain* and indefinite *this*, to have the former follow from the latter but this is also a matter that I leave open here.

3.3 A certain

I turn now to a brief discussion of a *certain* indefinites and contrast them with their *some* and *a(n)* sisters. Intuitively, these indefinites are marked for being more rather than less specific than *a(n)*. Note for a start that a *certain* indefinites, just like *some* and *a(n)*, may be scopally specific, as in [52].

[52] I spoke to a certain high official yesterday, who assured me that everything is all right.

Hintikka 1986 points out that a *certain* may also be dependent.¹⁷ In his example, [53],

[53] Every man forgot a certain date: his wife's birthday.

there is a salient function from men to dates that is involved, as well as a pronoun bound by the universal. That neither is a necessary requirement for a *certain* to co-vary is shown by [54]:

[54] Every student chose a certain poem by Emily Dickinson and analyzed it.

This sentence has an interpretation under which poems co-vary with students without there being a salient function that associates a unique poem to every student or a bound pronoun in the description. There is, however, a special feature involved with co-varying a *certain*, which is not present with *a(n)* and *some*, namely that the choice of value in the case of a *certain* is supposed to be non-random. This makes a *certain* DPs particularly appropriate as direct objects of verbs such as *choose* or *select*.¹⁸ In [55], *a(n)* or *some* are appropriate while a *certain* is not:

¹⁷See Hornstein 1988 for an argument against Hintikka's claim.

¹⁸I am grateful to Polly Jacobson for bringing this fact to my attention.

[55] Every second year student stumbled over an/some/#a certain interesting problem eventually.

Hintikka's forgetful men example shows that what we need is a non-random (rather than deliberate) association between the dependent variable and the variable it depends on. This is further shown in [56]:

[56] Every subject in our experiment will stumble across a certain stranger who will ask for directions.

The non-randomness requirement distinguishes *a certain* from the other DPs discussed here.

With respect to quantificational force, *a certain* is like *some* in not allowing generic interpretations and in having to scope outside negation:

- [57] a. Mary didn't buy a certain apartment in San Francisco and now it is too late.
b. A certain seagull lays eggs in the sand.

In fact, at least for some speakers, *a certain* is more consistently allergic to being within the scope of negation than *some* is. Whatever factor allows *some* to be interpretable within the scope of a clause-mate negation in the cases discussed above is less readily available for *a certain*. Some speakers find that a narrow scope reading for *a certain* DPs in the examples in [58] is considerably harder to get than the narrow scope interpretation of *some* DPs.

[58] Every student who did not contact some/a certain faculty member by their fourth quarter had difficulty finishing her QP in time.

While speakers differ with respect to how easily they accept a narrowest scope reading for *a certain* here, they agree in rejecting such a reading in [59]:

[59] They want to make sure that there isn't some/*a certain leader waiting in the wings to take power after the fall of Bin Laden.

This contrast is connected to the fact that [58] involves considering situations in which students choose a faculty member to talk to based on some non-random property of that faculty member, whereas in [59] no such selection of value is involved.

Note next that *a certain*, just like *some*, cannot be the subject of a 'strong' existential statement but may occur as the pivot in *there* sentences, and it may not occur as a pseudo-object with measure phrases:

- [60] a. *There is a certain God after all!
b. There's a certain slant of light/On winter afternoons (Emily Dickinson)
c. *Marc walked a certain mile before he stopped to rest.

We may conclude that *a certain* DPs, just like *some* DPs, are only compatible with existential force. This prevents their being bound by the generic operator as well as their being free variables in the immediate scope of negation. Drawing further analogies would be hasty, however, in view of the significant differences between the two types of DPs, differences we turn to next.

Note that *a certain* DPs cannot be modified by *or other* and do not have a derogatory flavor.

- [61] Every employee who filed some complaint or other about the management was dismissed.
 Every employee who filed a certain complaint (*or other) about the management was dismissed.

Next, note that *a certain* DPs cannot occur within the scope of intensional predicates such as *need*, or *want*; nor can they occur within the scope of dispositional uses of predicates such as *hate* or *like*.

- [62] a. I need some/a certain book on Italy.
 b. I hate thinking of you lying alone in some/a certain godforsaken hospital.
 c. I like visiting some/a certain village nobody has ever heard of.

In all these cases the *some* variant may have narrow scope, while the *a certain* version may not.

Finally, note that there is nothing strange with discourses where the speaker goes on to provide identifying information concerning the verifying value of a discourse referent introduced by *a certain* DP:

- [63] Each student chose a certain poem by Keats and translated it. Bill chose *To Autumn*, Sue chose *Ode on a Grecian Urn*, and Amy chose *Ode to a Nightingale*.

Intuitively, the use of *a certain* involves a non-random choice of value for the discourse referent it introduces, along the lines discussed in de Hoop 1995 for Dutch *sommige*. What it shares with *some* is that there must be several possible entities that can be given as values to the discourse referent in question but this time the choice one makes must be significant and in principle there could be identifying information concerning the intended value.¹⁹ Following de Hoop 1995, I suggest that what is involved is a constraint along the lines in [64]:

- [64] *Distinguished choice*
 If x is a variable introduced by a DP of the form *a certain NP*, for every input function f for the variable in question, there is a non-trivial property P that holds of a unique entity a among the possible values for x , and $f(x)=a$.

¹⁹For English, unlike for Dutch, it is not necessary for the speaker (or anyone else for that matter) to actually possess such identifying information.

Because of this requirement, *a certain* DPs license *which* questions, questions that ask for identifying information concerning the verifying value of the DP. Co-variation is allowed for *a certain* DPs as long as the value each input function gives it is in principle distinguishable from all others. Thus, the distinguished choice requirement makes the verifying value of the indefinite be identifiable in principle but does not require anyone to actually possess identifying knowledge.

The requirement of distinguished choice, just like the underspecification requirement for *some* is a model condition. And just as in the previous case, the requirement accounts for the scopal peculiarities of the DP without explicitly constraining scope. The distinguished choice requirement is incompatible with having the variable range over its value set because it requires a distinguished entity to play the role of verifying value. This renders it incompatible with being interpreted within the immediate scope of negation or as being bound by an adverb of quantification. As de Hoop notes, such a requirement renders the DP a 'quality' rather than a 'quantity' determiner (in van Benthem's 1981 terminology) and therefore it is not appropriate in strong existential assertions. The quantificational force of *a certain* DPs does not have to be independently restricted. The fact that these DPs cannot occur within the scope of modals like *want* or *need* or within the scope of dispositionals like *hate* or *like* is also explainable as a consequence of the distinguished choice requirement. Being within the scope of these predicates is intuitively incompatible with having a uniquely identifiable verifying value. Making this intuition precise would take us further into the semantics of the predicates involved than the confines of this paper allow us.

The model conditions discussed with respect to *some* and *a certain* could not be captured under a generalized quantifier view of determiners. Neither could they be made to follow from a type-theoretical distinction between the various indefinites. We turn next to a different indefinite in English and suggest that its behavior can be characterized by assuming that it involves a different type of functional constraint.

3.4 Indefinite *this*

The evaluation conditions considered so far involved the nature of the effect of the DP on an input function or special constraints on the relation between the discourse referent and embedding possibilities. Another type of condition, called *anchoring conditions*, involve constraints on the nature of the input function itself. In Farkas 1997 I suggested that reduplicated indefinites in Hungarian, for instance impose such an anchoring condition. These indefinites must co-vary with an individual or situational variable. In present terms, they require input functions of the form F_i , where i is an individual or situational variable other than the one introduced by the indefinite. Note that treating such indefinites as existential generalized quantifiers would not be able to capture the distinction between reduplicated and simple indefinites.

In this subsection we take a brief look at indefinite *this* in English, first discussed in Prince 1981, and exemplified in [65].

- [65] a. Every student translated this amazing poem by Emily Dickinson.
 b. I need this book about Italy that Amy told me about.

One important constraint involved with *this* DPs is discourse novelty. A further property imposed by this use of *this* is that the value given to the variable introduced is made particularly salient. The issue now is not to distinguish the value from other possible values, but rather, simply to endow it with increased salience and make it likely that more information will be provided about the value in question. This is why *this* DPs are perfect as objects of *give birth to* but not good as measure phrases:

- [66] a. Mary gave birth to this adorable little boy yesterday.
b. #Marc walked this mile before he stopped to rest.

Measure units make very poor topics of conversation whereas newborns are, at least for some people, excellent ones.

This DPs share with their *a certain* sisters the property that the value set is non-homogeneous. In the case of *a certain* the special entity had to be identifiable in principle. In the case of *this* DPs, there is a special entity that serves as their value which must be such that it can be made salient and must be a good possible future topic. I suggest that it is the salience requirement that is responsible for the fact that *this* DPs tend to be wider scope takers than *a certain* DPs. The *this* indefinite in sentence [65a] does not receive a co-varying interpretation, while its *a certain* counterpart did. A tempting hypothesis would be to claim that *this* DPs are subject to an anchoring constraint requiring them to be evaluated by the initial function *f*. They thus would be closest to Kratzer-style choice functions specified for not tolerating implicit arguments (or tolerating them less easily than *a certain*).

Such an anchoring constraint would, however, be too strong. *This* DPs may receive a co-varying reading in case the pragmatics of the situation forces such a reading but at the same time allows salient reference. Describing an eating contest, one could say [67],

- [67] On everybody's plate there was this huge slice of chocolate cake that had to be eaten in 5".

The anchoring constraint has to be weakened to evaluation by as 'high' a function as pragmatically allowable. Interestingly, bound pronouns, even when reflexives, are less conducive to co-varying interpretation than pragmatic factors. The example in [68] were judged significantly worse than [67].

- [68] Every boy showed up with this ridiculous picture of himself as a baby.

If what we had here was accommodation as far up as binding allows, in the spirit of van der Sandt 1992, we would expect [68] to be impeccable. Note also that *this* DPs may be in the scope of 'weak' intensional predicates, i.e., predicates that govern the indicative rather than the subjunctive in French or Romanian:

- [69] I dreamt that I was in this strange city that looked as if it had been drawn by Escher.

For the time being I can only conclude that recourse to a Kratzerian choice function would not explain the scopal restrictions on indefinite *this*. I suspect that a better understanding

of the nature of salience involved with these DPs and the correct analysis of the distinction between weak intensionals such as *dream*, *believe* and *think* on the one hand, and strong intensionals, such as *need*, *want*, *wish* on the other, would provide an explanation for these facts.²⁰ Having recourse to choice functions for distinguishing *a(n)* from *some*, *a certain* and *this* so as to capture the tendency of the latter two for having wide scope and for escaping islands would not help us in distinguishing between these three 'choice-functional' indefinites. We would have no explanation for why *some* may occur within the scope of modals while the other two may not, and why *a certain* indefinites may be dependent more easily than *this* indefinites. In the view advocated here, the distribution and interpretation of the various determiners discussed here is a consequence of the particular interpretation constraints they impose.

4. Conclusion

The main point of the above discussion is that the constraint-based approach to determiners sketched in Section 2 allows us to capture both the similarities and the fine-grained distinctions among the various determiners in English. Common to all argumental full-fledged DPs is that they involve the introduction of a variable. Common to all DPs with descriptive content (DPs involving an NP headed by a common noun) is that the interpretation of the NP provides a set from which values for the variable in question can be chosen. Within the category of determiners, a major distinction is that between quantificational and non-quantificational determiners, which in present terms concerns the question of whether the D introduces auxiliary functions or not. Within the category of non-quantificational Ds, I have focused here on three singular indefinite in English. In this area rich in distinctions, I have proposed a new one, that of marked versus unmarked Ds and have proposed to treat *a(n)* as unmarked in the sense of not having any associated functional constraints. It is this lack of constraints that is responsible for the well-known versatility of distribution and interpretation of *a(n)* DPs. In contrast, *some* and *a certain* were claimed to be marked in that they involve special constraints whose effect is to limit both their quantificational force and their scope possibilities. Looking at the details of the distribution and interpretation of marked indefinites in English leads to the conclusion that a binary ambiguity between existential and choice functional indefinites would not be sufficient, independently of how we characterize each member of the distinction. The view proposed here does not have to treat *a(n)* as multiply ambiguous while at the same time it manages to capture the distinction between this determiner and the purely existential determiners found in English. In the course of the discussion the issue of the PPI-hood of *some* and *a certain* has been reopened and left ajar. Future research will, hopefully, close it. If the approach taken here is on the right track, it should prove useful in shedding light on the distribution and interpretation of the other determiners in English, as well as on what goes on in the realm of determiners in other languages. We would expect to find elsewhere the distinction between unmarked and marked Ds, and within the latter, to find Ds marked for particular evaluation parame-

²⁰ *A certain* DPs are possible within the scope of weak intensional predicates as well:

- (i) Mary believes that she has to catch a certain unicorn that has been ravaging her garden.
- (ii) I dreamt that I had to catch a certain unicorn that had been ravaging my garden.

ters (functional and/or modal) as well as Ds encoding various restrictions on verifying value choice.

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