A TYPOLOGY OF SPECIFICITY

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Abstract. The paper casts a look back at the role specificity has played in DP semantics in the last thirty years and then defends the proposal that the common thread across specificity distinctions is the contrast between stability vs. variability in value assignments for the variable introduced by the DP across various types of alternatives. Special determiners are used to mark either variation (non-specificity) or stability (specificity). We exemplify with a discussion of the singular determiner *some* in English.

Keywords: specificity, dynamic semantics, indefinite determiners.

1. INTRODUCTION

In this article we cast a look back on work within the area of noun / determiner phrase (NP/DP) semantics in order to put the problem of specificity in context (Section 2). We then propose that specificity should be seen in terms of two fundamental distinctions and discuss some further divisions and consequences of this proposal (Section 3). Becoming even more specific, we then turn to one particular non-specificity marker in English, the singular determiner *some* (Section 4), and then conclude.

2. SPECIFICITY WITHIN DP SEMANTICS

2.1 Existential vs. universal DPs

Within work on DP semantics in the 20th century, the fundamental empirical observation driving Montague's treatment was the fact that all DPs, whether proper names, pronouns, or DPs headed by various types of determiners, have the same coarse-grained syntactic distribution, e.g., subjects, direct objects or objects of prepositions. This common distribution is captured in Montague's original work by having all DPs treated as generalized quantifiers, i.e., being of type $\langle\langle e,t\rangle,t\rangle$. Under this treatment, determiners express a relation between the set of entities that satisfy their Restrictor and the set of entities that satisfy their Nuclear Scope.

Finer grained distinctions have been drawn in different frameworks in a variety of ways. Work within the tradition of *dynamic semantics*, such as Kamp's Discourse Representation Theory (DRT, Kamp 1981) and Heim's File Change Semantics (FCS, Heim 1982) arose partly from the need to draw a distinction between 'existential' DPs and *bona*

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fide quantificational DPs. This need is justified by a series of empirical contrasts concerning their semantic behaviour, some of which we review below. On the existential side we concentrate here on indefinite DPs, and on the quantificational side, on DPs whose determiner is *every*.

First, we see in (1) and (2) that indefinite DPs can have discourse scope, while universals cannot. Next, note that within a sentence, indefinites can bind pronouns outside their Restrictor or Nuclear Scope, while universals cannot, a problem that has been noted since medieval times. This is shown in the 'donkey' sentences in (3) and (4):

(1)   An$_i$ invited speaker called. She$_i$ wanted to speak to you.
(2)   Every$_i$ invited speaker called. *She$_i$ wanted to speak to you.
(3)   If Paul likes a$_i$ donkey, he buys it$_i$.
(4)   *If Paul likes every$_i$ donkey, he buys it$_i$.

The special scope taking properties of existential DPs is also apparent when we consider their freedom of taking *inverse scope*. Thus, it has been noted since Fodor and Sag 1982 and Farkas 1981, that indefinite DPs can outscope universal DPs across sentential and even syntactic island barriers, while the scope of universal DPs can only reach up as far as the first sentence node dominating them. This is illustrated below, where the possible scopal relations are given in parentheses, and where > is short for 'scopes over':

(5)   Pauline has to talk to every$_x$ diplomat who was in touch with a$_y$ Chinese dissident. ($\exists > \forall$; $\forall > \exists$)
(6)   Pauline has to talk to a$_x$ diplomat who was in touch with every$_y$ Chinese dissident. ($\exists > \forall$; $*\forall > \exists$)

Thus, (5) can be understood as claiming that there is a particular Chinese dissident such that Pauline has the task to talk to every diplomat who was in touch with him. In this interpretation the existential has semantic scope over the universal because there is no possible co-variation between values assigned to *x* and values assigned to *y*. Alternatively, (5) can be understood with the existential inside the scope of the universal, in which case Pauline has the daunting task of talking to every diplomat with the property of having been in touch with some Chinese dissident or other. In this case then, values for *y* may co-vary with values for *x*.

In contrast, (6) can only be understood with the existential outside the semantic scope of the universal. Under this reading, Pauline's task is to talk to a diplomat with the property of having been in touch with every Chinese dissident. The missing reading is the one where the existential is within the scope of the universal making it possible to have co-variation between *x* and *y*. If this reading were available Pauline's task would be to find, for every Chinese dissident, some diplomat or other that was in touch with that dissident, and then talk to him or her.

The upshot here is that while the existential can have both an inverse and a direct scope relative to the universal in (5), in (6), where the quantifiers are reversed, the inverse scope reading becomes unavailable. In (7) we illustrate the case of 'intermediate' scope, where an indefinite can be interpreted as taking scope over a c-commanding universal across a syntactic island boundary while at the same time within the scope of another even higher c-commanding universal:

(7)   Every committee member read every paper that a candidate submitted. ($\forall > \exists > \forall$)

The relevant reading here is where every committee member was assigned a candidate from the pool of candidates, and then she had to read every paper that candidate submitted, where candidates vary across committee members but once you fix the committee member, there is no co-variation between candidate and papers.[2]

Common to the dynamic approaches for dealing with these and other contrasts between existential and universal DPs is to assume that the source of existential force is different from that of universal force. Under the assumption that, minimally, determiners introduce a discourse referent or variable and the semantic value of their NP sister provides the domain – or value set – from which this discourse referent can take values, one can treat existential force as contributed by the general truth (satisfaction) conditions on discourse representations. Existentials then simply update the input assignment function on the discourse referent they introduce. Universal determiners on the other hand, besides introducing a discourse referent x also introduce a set of assignment functions H_x that exhaust x's domain D_x. This means that for any $i \in D_x$, there is an $h \in H_x$ such that $h(x) = i$, where D_x is the domain of x. Each assignment function in H_x updates the input function g on x which means that g and h agree on all values except possibly for that assigned to x. An indefinite is in the semantic scope of a universal if and only if it updates the functions in H_x, i.e., if each of these functions serves as an input function for the indefinite. Note that once the two types of DPs are treated as essentially different, the fact that they have different semantic properties is not surprising though accounting for the details of their behaviour is far from trivial.

2.2. Enter specificity

Specificity was first brought into the discussion of DP semantics in Fodor and Sag (1982) in an attempt to deal with the unlimited upward scope of indefinite DPs illustrated above in (5). The gist of the proposal was that the 'widest scope' reading of the indefinite was an illusion due to the fact that indefinites are ambiguous between a specific and a non-specific reading quite independently of scope. Thus, they argue that a sentence like (8).

(8)   A painting is missing from this room.

is ambiguous between a 'specific', referential reading under which the speaker has a particular painting in mind, and a 'non-specific', quantificational reading under which the speaker makes a purely existential claim. The type of specificity illustrated by the first reading of (8) is dubbed 'epistemic specificity' in Farkas (1994). Under this reading the speaker has a unique element of the domain in mind which is to be given as value to the discourse referent introduced by the determiner. Once we accept the existence of this

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[2] The existence of this reading and its relevance is discussed in Farkas (1981). Note that it is not crucial for this interpretation to have a unique candidate assigned to each committee member as long as for each committee member you can find some candidate with the property that the committee member has to read every paper that candidate submitted. The lack of uniqueness requirement here is relevant to Schwarzschild (2002), where it is claimed that the recalcitrant inter mediate scope readings can be explained away by a contextual uniqueness requirement.

ambiguity, the argument goes, the exceptional interpretation of (5), under which the existential appears to outscope the universal, can be treated as involving a 'scopeless' epistemically specific indefinite interpreted as unique and therefore not subject to the type of variation that narrow scope relative to a universal induces. This account of the problem of the upward freedom of existentials stumbles when it comes to intermediate readings of sentences such as (7), where an existential scopes over a universal across an island boundary and yet, it is interpreted non-specifically as co-varying with the higher universal. The speaker of (7) may well be unaware of who the various candidates assigned to each committee member were and yet the sentence may have the intermediate reading according to which candidates vary across committee members but relative to a particular committee member, the papers do not vary relative to the candidate. Besides this empirical problem, the account sketched above suffers from having to posit a systematic ambiguity in the indefinite article, between an existential and a referential interpretation.

A different approach to accounting for the contrast between existential and universal DPs is to treat the former as choice functions, i.e., as terms whose value is a choice function that applies to the domain and selects an element of that domain (see Egli 1979, von Heusinger 2000, Reinhart 1997, Kratzer 1998). Common to these approaches is that a new type of entity, a choice function, is introduced. One way of obtaining the various scope readings discussed above is to allow this choice function to be bound by existential operators freely inserted in the syntactic structure (see Reinhart 1997). Another possibility, suggested in Kratzer (1998), is to assume that this choice function is contextually given. In order to get the intermediate reading one has to assume this contextually given choice function can be parameterized (i.e., generalized to a Skolem function) and thus be given further arguments. While quite popular, such approaches rely on the introduction of an *ad hoc* tool, the choice function, and further stipulations concerning the way such functions are to be bound or allowed to have further arguments.

A different line of attack for solving the problem of the exceptional wide scope of indefinites has been pursued in Farkas (2000) and Brașoveanu and Farkas (2011). The fundamental innovation here is to give up the assumed parallelism between syntactic c-command and wide scope. More specifically, an indefinite within the syntactic scope of an operator may be interpreted within its semantic scope as well, but it may also stay unaffected. In the former case, the interpretation of the indefinite is affected by the semantic contribution of the operator; in the latter, it is not. The core of the proposal is to explain the difference between existentials based on unavoidable semantic differences, without having to resort to a special tool for the semantics of the former (such as in choice functional approaches). Brașoveanu and Farkas (2011) work out an independence-friendly logic to make their account concrete but the proposal is compatible with dynamic semantic frameworks.

Going back to specificity, under the view in Brașoveanu and Farkas (2011), the distinction between the epistemically specific and epistemically non-specific readings of (8) can be left to pragmatics and neither this distinction nor choice functions are needed to account for the scopal behaviour of existentials and universals. An existential that is within the semantic scope of a universal or similar operator counts as scopally non-specific in the terminology of Farkas (1994) in the sense that the values of the variable bound by the existential can now co-vary with those assigned to the universal. Since co-variation is possible only if there is variation, scopal non-specificity is possible only in case the operator in whose semantic scope the existential finds itself introduces a set of possible values for the variable it binds so that *variation* of values for this variable becomes possible.

The relevance of the notion of specificity extends beyond issues that have to do with scope. In earliest work on D(ifferential) O(bject) M(arking) and clitic doubling in Romanian (see Farkas 1976) it has been claimed that whether a direct object is marked by the preposition *pe* or not is crucially dependent on specificity as well as animacy. In Aissen (2003), the role of specificity and definiteness in DOM is investigated cross-linguistically. Aissen proposes that DOM is sensitive to the definiteness scale in (9):

(9)   Personal Pronoun > Proper Name > Definite > Specific > Non-specific

In Farkas (2002a) the specific rung of this scale is expanded in terms of epistemic, partitive and scopal specificity (see Enç 1991, Farkas 1994). While the various subtypes of specificity distinguished in the literature are indeed different, a crucial issue that has to be addressed is what, if anything, is common across these subtypes. This is the question that is the focus of the next section.

3. SPECIFICITY DISTINCTIONS AS VARIATION CONSTRAINTS

We put the issue just raised into context by first surveying an empirical domain that has received concentrated attention in the last decade. The bulk of current work on indefinites focuses on the details of the semantics and pragmatics of various special shades of indefinites, such as the singular determiner *some* (*some*$_{SG}$), *a certain* and its German counterparts *ein bestimmt/gewiss, this*$_{[-DEF]}$, dependent (or distributive) indefinites such as Romanian *câte* or Hungarian *egy-egy*, as well as existential items with free choice or epistemic non-specificity effects, such as German *irgendein*, Romanian *vreun*, Hebrew *eyze*, Spanish *algún*, French *un NP quelconque.*

The more studies there are on this rich research ground, the more clear it is that while there are subtle differences among these items, there is also a definite set of parameters along which they differ. Thus, the question of what fundamental differences they are called to mark becomes ever more urgent. The semantic tool that has been found useful in work after work on these issues is the notion of *alternative*, which different theories define in different ways. In this informal discussion we assume that the D in a DP introduces a discourse referent (or variable); variables are assigned values by sets of assignment functions. The properties of the set of assignment functions giving values to a variable depend on the linguistic and extra-linguistic context. Alternatives for us will effectively be sets of assignments, or perhaps more intuitively, assignment-value pairs, where the assignment functions in the set give values to the variable in question. Connecting this work to specificity, we claim that examining the properties of these alternatives is a useful tool in understanding specificity distinctions. Some of the questions that arise in this area are formulated in (10), starting with the question posed at the end of Section 2:

(10)   a.   What expectations should we have concerning the type of information encoded in a D?
       b.   What, if any, is the common denominator underlying specificity distinctions, and, more broadly, distinctions across Determiners?
       c.   How do scopal restrictions interact with specificity markings?

In terms of their truth-conditional contribution, we assume determiners are functions from the set of entities denoted by their NP sister to elements of that set. In terms of effects on the discourse, we assume they minimally introduce a variable (or discourse referent) relative to which the set of input interpretation functions is updated, and constrain its value to be an element of their domain.

Within the class of determiners we assume a basic distinction between a neutral determiner that has no further role than the minimal one described above, and a host of non-neutral determiners that impose further constraints on the variable they introduce. These constraints may fall into one of the two types given in (11):

(11) a.   *Domain constraints* impose further properties on the domain of the variable.
      b.   *Evaluation constraints* impose further properties on the nature of the set of assignment functions updated by the variable in question.

Under these rather minimal assumptions we are able to make the following two cross-linguistic predictions that begin to answer the question in (10a):

(12) a.   Determiners impose semantically/pragmatically coherent restrictions.
      b.   Determiners are predicted not to impose purely structural restrictions.

The prediction in (12a) rules out determiner types that cannot receive a natural semantic characterization. An example of a constraint that would be ruled out by (12a) would be one that required an existential DP to have a universal in its scope. While such a constraint is structurally simple, it does not result in a semantically coherent restriction. The interpretive properties of an existential are not affected by the presence of a universal in its scope and therefore this requirement cannot be connected to constraints on the domain or evaluation of the existential.

Constraints amounting to requiring a DP to occur *within* the semantic scope of a quantifier or operator, on the other hand, are not ruled out because being within the semantic scope of an operator or quantifier affects the way the DP is evaluated. Another example of a determiner type ruled out by (12a) is one that would have to occur, say, within the scope of an existential quantifier and epistemic predicates. This is not a semantically coherent restriction because there is no semantic property that naturally distinguishes these two contexts from all others. The prediction in (12b) rules out determiners that impose purely syntactic constraints, such as occurring within the Restrictor or the Nuclear Scope of some quantifier, independently of what that quantifier is.[3]

Against this background, we return to the question in (10b) and suggest that the common denominator underlying the family of specificity distinctions is that formulated in (13). Within specificity encoding determiners then, the major distinction is between the two types of determiners in (14):

(13)   The specificity/non-specificity distinction involves regulating witness choice for the relevant variable by requiring either *stability* or *variation* of value for the relevant variable. (See Farkas 2002a)

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[3] Negative concord items come to mind here as possible systematic exceptions to (12b). Note that not even in their case are the constraints involved purely syntactic.

(14) a. *Pro-variation determiners*: Ds that impose a constraint that leads to relative *variability* of reference.

b. *Anti-variation determiners*: Ds that impose a constraint that leads to relative *stability* of reference.

A pro-variation determiner imposes a constraint that enforces variation of values for the relevant variable across a set of assignment functions or alternatives; an anti-variation determiner imposes a constraint that limits such variation. Limiting variation of values is a marker of 'specificity'; enforcing variation of values is a marker of 'non-specificity'. Going back now to the specificity/definiteness scale in (9), DPs headed by pro-variation determiners are predicted to be less specific than DPs headed by anti-variation determiners.

Going now back to the various types of definite and indefinite Ds mentioned so far, those in (15a) can be characterized as anti-variation determiners and therefore as specificity markers, while those in (15b) can be characterized as pro-variation determiners and therefore as non-specificity markers:[4]

(15) a. definite Ds, demonstrative Ds, *a certain, ein gewiss/bestimmt* (German), *this*-indefinites, overt partitives

b. *some*$_{SG}$, *câte* (Romanian), *egy-egy* (Hungarian), *irgendein* (German), *vreun* (Romanian), *un N oarecare* (Romanian), *eyze* (Hebrew), *algún* (Spanish)

For both specificity and non-specificity markers, it is relevant to specify which assignment function set (or alternatives) they are sensitive to. For specificity markers we should further ask what variation they tolerate. The answer, combined with the appropriate semantics of operators and quantifiers, should predict what operators can have such a specificity marker within their scope. For non-specificity markers the relevant question to answer is what type of variation they require, which, in turn, will determine what, if anything, they have to occur in the semantic scope of. The details of the answers to these questions for particular specificity or non-specificity marking determiners will depend on the nature of the constraint the particular determiner contributes as well as on general assumptions about how variation of values across alternatives can enter the interpretation process. The ideal answer to the question in (10c) then is that the scopal properties of a DP should follow from its semantics and if the DP is headed by a D, its semantics should be sufficient to predict its scopal behaviour.

Recent work on special determiners has uncovered a wide variety of specificity distinctions. At least part of the reason for this richness is, we claim, the large diversity of alternatives across which values may vary or stay fixed. As mentioned before, we take the basic formal notion to be that of quantificational alternative given in (16).

(16) A quantificational alternative for a discourse referent x: a triple composed of a world w, an assignment   function f defined for x at w and $f(x)$ at w.

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[4] Without attempting to be comprehensive, we mention some of the large amount of work on these determiners here: Fălăuş (2002) on *vreun,* Jayez and Tovena (2006) on French non-specificity markers, Alonso-Ovalle and Menéndez Benito (2010) on *algún*, Kagan (2007) on *eyze*, Ionin (2006) on *this* indefinites, Aloni and Port (2010) on 'epistemic' non-specifics in German, Italian and Spanish, Farkas (2001) on *egy-egy* in Hungarian.

Stability/variation of reference for x is then seen as variation/stability of values for x relative to a set of alternatives varying across assignment functions and worlds (see Braşoveanu 2012 and references therein). Leaving the world variable aside, variation across a set of alternatives means that x is given values by a set of assignment functions F such that there must be at least two assignments f and f' in F such that $f(x) \neq f'(x)$. Stability of values across alternatives in F means that x is assigned the same value by the assignments in F. Limiting variation across alternatives means reducing the possibility of variation of values across relevant assignments.

We can now distinguish the following two major types of quantificational alternatives, depending on how they are introduced: (i) *external* alternatives and (ii) *internal* alternatives. The set of external alternatives are the set of contexts in the Tarskian/Montagovian sense relative to which an expression e is true. Omitting for simplicity's sake the model and the world of evaluation the set G of external alternatives for the variable x introduced by the indefinite in (17a) is as given in (17b).

(17) a. A_x student left.
       b.   the maximal G such that for $\forall g \in G$, $\| A_x \text{ student left} \|^g = 1$

In Discourse Representation Theory (DRT) terms, G is the set of embedding functions of a discourse representation structure (DRS). The set of internal alternatives is the possibly singleton set of assignment functions introduced in the process of interpretation of an expression e. The set of internal alternatives introduced in the process of interpretation of (17a) relative to each g in G, is the singleton set H whose only element h is a function that differs from g at most in the value it assigns to x such that the conditions in (18) are met.

(18) a. $h(x) \in \| \text{student} \|^h$
       b. $h(x) \in \| \text{leave} \|^h$

Variation of values for x within its set of internal alternatives is possible when this set is not singleton. This situation comes about when there is some source within the expression that is being interpreted, such as a quantifier or some other operator that introduces a set of alternatives relative to each $g \in G$. This is the case, for instance, in (19) where the determiner *every* introduces such a set:

(19) $Every_x$ student read a_y book.

Here x is given values by the set of internal alternatives H that exhaust the domain of x, i.e., H has as many members as there are students. The variable y is evaluated relative to H in the sense that every member of H is updated on y. The indefinite is said to be *outside* the semantic scope of the universal iff the values assigned to y are fixed relative to the members of H; the indefinite is said to be *within* the semantic scope of the universal iff the values assigned to x are allowed to vary across the members of H.

Variation/stability requirements can target internal or external alternatives. If variation is required across internal alternatives (as is the case for dependent indefinites such as *câte* and the special 'epistemic' indefinite *vreun* in Romanian), the DP in question

will have to be within the semantic scope of an expression that introduces a non-singleton set of internal alternatives. If, on the other hand, variation across external alternatives is required (as we will argue is the case for *some*_{SG}) there is no need for the DP in question to be within the semantic scope of an operator or quantifier because external alternatives are provided by the context of interpretation.

This, then, exemplifies the way scopal constraints a D imposes on the DP it heads can be at least partially predicted from the type of interpretive constraint the D imposes.

We exemplify first with overt partitives, such as *one of the guests*. Partitives are an example of a DP type that imposes a constraint resulting in relative external stability. Such DPs restrict the domain of the variable they introduce to a subset of a discourse familiar set and thereby limit the potential of variation across external alternatives, all of which have to choose a value from this subset. Partitives then are specific relative to simple non-partitives since the condition they impose is an anti-variation constraint. Given that the requirement is an anti-variation constraint, we correctly predict partitives to pattern with other 'specific' DPs relative to DOM, for instance. On the other hand, given that the type of constraint they impose targets external alternatives, we again correctly predict that the semantic scope of partitives will be unaffected and thus that they will be able to take semantic scope inside or outside any operator or quantifier. That this prediction is correct is seen in (20a), where the partitive can be interpreted inside or outside the scope of negation, and in (20b), where it can be interpreted inside or outside the scope of the intensional predicate *want*.

(20) a.   Alice didn't marry one of Phil's brothers.
      b.   Alice wants/doesn't want to marry one of Phil's brothers.

A different kind of stability of reference constraint is involved in the case of *a certain* indefinites, requiring stability of reference across a particular type of external alternatives, namely those that obtain in contexts that are more informative concerning the identity of the referent than the current context. The idea is that it should be possible to monotonically increase information relative to the current context so that we reach a context in which all external alternatives agree on the value assigned to the variable introduced by *a certain*. This constraint then ensures that the witness for the indefinite is identifiable in principle. As a result, *a certain* indefinites are predicted not to occur within the semantic scope of negation or a verb like *want* but be fine within the scope of universal quantifiers or epistemic predicates, as illustrated below:

(21) a.   Alice didn't marry a certain American.
      b.   Alice wants to marry a certain American.
      c.   Every team discussed a certain legal case.
      d.   Alex thinks that a certain witch blighted his mare.

On the other hand, non-specificity markers targeting internal alternatives will have to be interpreted within an environment that provides the set of internal alternatives the DP needs. This, we believe, is the case of dependent indefinites, which require variation of values across a set of internal alternatives and thus are predicted not to occur in linguistic contexts that do not provide such alternatives. Simply requiring variation of values across internal alternatives might be enough for characterizing the distribution and interpretation

of DPs headed by dependent indefinites such as *câte* in Romanian but more needs to be said in order to differentiate this D from *vreun*. DPs headed by both of these Ds require variation across internal alternatives (they resist widest scope interpretation in episodic contexts) and yet they are different in both distribution and interpretation.

To sum up, the approach we are suggesting allows us to see what is common across a diverse class of specificity markers as well as what is common across a diverse class of non-specificity markers: the former require variation of reference across alternatives, the latter impose restrictions on variation. This perspective helps shed some light on the complexities of the phenomena associated with specificity. It also holds out the promise of accounting for the scopal properties of a DP solely based on the semantic characterization of the DP and of the various operators and quantifiers it interacts with.

4. A NON-SPECIFICITY DETERMINER: *SOME*$_{SG}$

We have suggested above that non-specificity determiners impose restrictions that enforce variation across alternatives. This variation may involve external or internal alternatives. If internal alternatives are involved, the DP headed by the determiner in question will have to occur within the semantic scope of an expression that introduces such alternatives. We suggest that this is the case for dependent indefinites (*câte* in Romanian, *egy-egy* in Hungarian) as well as for other special indefinites such as *vreun* in Romanian. If external alternatives are targeted, the relevant DPs are predicted to have wide scope freely. Depending on the details of the constraint, however, they may be subject to further scopal restrictions. In the rest of this section we look in detail at *some*$_{SG}$, which, we argue, enforces variation across external alternatives. The discussion is based on Farkas (2002b).

4.1. Data

First, we briefly review the properties this determiner shares with its unmarked sister, *a(n)*. We see in (22) that DPs headed by it can have discourse scope:

(22) Some$_x$ guy came by looking for you. He$_x$ will come back later.
(23) a.   Everybody made some disparaging comment about this candidate.
     b.   Everybody praised some movie that Phil recommended.
     c.   Pauline has to talk to every diplomat that was in contact with some Chinese dissident.
(24) a.   Last night we watched some French New Wave movie that Phil recommended.
     b.   Pauline is off at some conference in Bucharest right now.

In (23) we see that DPs headed by *some*$_{SG}$ may have sentence internal direct or inverse scope. In (23a) the indefinite DP is more likely interpreted as within the scope of the universal while in (23b) both readings are available. In (23c), the indefinite can be interpreted either inside or outside the scope of the universal. The wide scope reading shows that it can cross island boundaries. In (24) we see that *some*$_{SG}$ DPs may be epistemically specific or not. In (24a) it is most likely that the speaker still knows which specific movie she watched last night; (24b) on the other hand, can be used to indicate not

only that the speaker doesn't know what conference Pauline is attending but that she doesn't care. Turning now to cases where *some*_{SG} DPs contrast with their unmarked counterpart, note that these DPs are stubbornly existential in the sense that they cannot occur either under the semantic scope of negation or with generic interpretations:

(25)   a.   Pauline didn't notice some mistake in this paper.
         b.   Some bear is dangerous when he is hungry.

In (25a) the indefinite must be interpreted as occurring outside the scope of negation: the sentence claims that there is a mistake in this paper that Pauline did not notice, an observation that led to the claim that *some*_{SG} DPs are positive polarity items. In (25b), the indefinite can only be interpreted as making an existential claim about a bear. The readings that these sentences lack involve having the variable the indefinite introduces range over its entire domain. Connecting the two restrictions in (25) is, obviously, preferable to having two constraints, one for each. Note that somewhat unexpectedly, these DPs can occur predicatively, just like their unmarked counterparts:

(26)   a.   It looked like some rusting spaceship.
         b.   He isn't just some poor student looking for a job! He is your senior colleague.

Note however, that in predicative uses, the dismissive accompaniment, which is not always present in non-predicative uses, as exemplified in (27), is obligatory. Note next that these DPs are not appropriate in contexts in which choice of witness is immaterial (28). In (29) we see that the dismissive implication already mentioned above is possible in non-predicative uses as well.

(27)   a.   Johnny is a/#some doctor.
         b.   I am not much of a/*some folk singer.[5]
(28)   a.   Waiter! There is a/#some fly in my soup.
         b.   A/#some cab will be waiting for you at the airport.
(29)   a.   He came up with some story about being held up at the office.
         b.   Some jerk at the gate asked me to show him my photo ID.

Unmarked indefinites cannot be used to convey this dismissive flavour. We conclude that the use of this special indefinite may convey ignorance – see (24b) – or indifference/dismissiveness – see (29) and (26). Exactly what nuance is conveyed and when are matters that require further investigation. We can note at this point that the ignorance implication is not relevant for predicative uses where no individual variable is involved. Under the assumption that one needs a reason to use a special determiner, we can account for the fact that in predicative uses the dismissive interpretation is obligatory. What remains unaccounted for is the possibility of having *some*_{SG} occurring in apparently neutral contexts as in (23) where an ignorance/indifference implication is not obligatory. Exactly how the

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[5] We owe this example to Erik Zyman. Exactly why a dismissive interpretation is not possible here is not clear. Also note that *some* can be used with the opposite of a dismissive interpretation if stressed in (27a).

use of *some*$_{SG}$ here contrasts with the use of the unmarked indefinite *a(n)* remains to be investigated. Another sharp contrast between *some* DPs and their unmarked counterparts is that the former but not the latter can be used with the interpretation of *approximatively*:

(30)   There were some 300 people at the party.
(31)   a.   There was some truth/potential merit in what she said.
         b.   This recipe calls for some milk.

In fact, with DPs that mention quantities, the *approximatively* interpretation is obligatory: (30) cannot be used to convey that there were exactly 300 people at the party, the way its *some*-less counterpart can.[6] Finally, unlike their unmarked sister, *some*$_{SG}$ DPs may be used as an indefinite quantity D with mass and abstract nouns (31).

4.2. Towards an account

We suggest that the constraint associated with *some*$_{SG}$ is one that imposes variation of values across external alternatives directly as formulated in (32):

(32)   There must be at least two distinct entities d_1 and d_2 within the domain of the variable introduced by *some*$_{SG}$ such that in the output context G there are two assignment functions g and g' such that d_1 is the verifying value of x relative to g but not g', and d_2 is the verifying value of x relative to g' but not g.[7]

This constraint then requires values given to x to vary across elements of the external context G. Consequently, DPs headed by *some*$_{SG}$ cannot be in the immediate semantic scope of negation or the generic quantifier **Gen** because in that case all elements in the domain must be verifying values relative to all alternatives in G: in the case of negation, all the elements of the domain must be verifying values for all external alternatives; the same is true for the generic operator under the assumption that this operator quantifies universally over something like default/prototypical values for the variable it binds. The exclusive requirement in (32), requiring choice of value for x relative to external alternatives to matter is not met when the existential is under the scope of negation or the generic operator. This accounts for the data in (25).

Since this is an external variation requirement, no further scopal restrictions are imposed, which accounts for the fact that except for negation and generic contexts, the scope of *some*$_{SG}$ parallels that of unmarked indefinites, as shown in (23) and (24). Furthermore, the indifference/ignorance/dismissive implications that arise with the use of *some*$_{SG}$ can be linked to the fact that the speaker goes out of her way to indicate that the value of the variable this D introduces is unidentified. Doing so in contexts where

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[6] Arguably, in this example *some* is not a determiner but rather it is used to modify the numeral so this is a different morpheme from either singular or plural determiner *some*. The Romanian *vreo* and Hebrew *eyze*, which are determiners whose meanings are close to *some*$_{SG}$ can also be used with this *approximatively* meaning, showing that the connection is not completely accidental.

[7] In simple cases the verifying value of x relative to g is g(x). If, however, x is within the semantic scope of an operator or quantifier that introduces a set of assignment functions modifying g on some other variable the situation is more complicated.

identification of verifying values is relevant gives rise to the implication that the speaker doesn't know (ignorance) or doesn't care about (indifference) further information about this referent. Signalling lack of identification in contexts where identification is not possibly at issue, as in (28), leads to pragmatic infelicity.[8] Not caring about further specifying the relevant value for the variable leads to dismissive connotations. The presence of an ignorance or indifference implication explains the further implication the use of $some_{SG}$ DPs give rise to, namely that further discussion of the identity of the verifying value is not invited. Note, however, that one cannot assume that these indefinites do not latently raise the issue of what the verifying value is in the sense of AnderBois (2011) because $some_{SG}$ DPs may serve as antecedents to sluices, as exemplified below:

(33)   Pauline left for some conference on the East Coast – I forget which.

Diagnosing the precise status of the indifference/ignorance implication is not a simple matter given that in our view they arise because of the choice of a marked form over an unmarked one. In such cases the speaker is presumed to have a reason behind her choice. The origin of the implication then is pragmatic but we do not expect the implication to be easily cancellable in the way ordinary implicatures are. A problem that remains open is to account for the details of the conditions under which indifference and ignorance implications arise.

Next, note that the use of $some_{SG}$ with abstract domains, as in (31), is expected as well, given that the variable introduced by $some_{SG}$ cannot be expected to exhaust its domain. What remains unexplained is the impossibility of an ordinary indefinite in these cases. It follows from the constraint in (32) that the domain of $some_{SG}$ cannot be singleton since in that case no variation of verifying values across external alternatives would be possible. The fact that when $some_{SG}$ is used with a numeral, an *approximately* interpretation is required follows under the assumption that such DPs refer to quantities. An exact quantity has a single verifying value; approximate quantities have non-singleton verifying values. Some issues that are left unexplained, in addition to what was mentioned above, concerns the possibility of using $some_{SG}$ DPs predicatively since predicative uses do not introduce individual variables. However, the requirement of having a non-singleton set of external alternatives makes *some NP*s very similar to properties, so the coercion into a predicative element is not completely unexpected.

Furthermore, the precise way in which dismissive or ignorance implications arise and when and how *approximately* interpretations are possible becomes particularly urgent when cross-linguistic comparisons are made between $some_{SG}$ DPs and items that are close but not quite identical to it, such as Hebrew *eyze* and Spanish *algún*.

Finally, let us note that the claim made in Farkas (2002b) that the contexts in which marked indefinite DPs occur is a strict subset of the contexts in which the unmarked indefinite is found is untenable even when just comparing $some_{SG}$ and *a(n)*. The same conclusion is reached in Henderson (2012), when comparing unmarked indefinites and dependent indefinites: the latter, it turns out, can be licensed by iterative event morphology but ordinary indefinites cannot occur within their semantic scope.

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[8] Note that indifference is a way of dispelling an identification issue, i.e., it is ultimately a way of addressing it. The examples in (28) are infelicitous because identifiability or non-identifiability of the fly/cab are not at issue at all.

We close this section with a brief comparison of the work done by the constraint in (32) and an alternative, proposed for *algún* in Alonso-Ovalle and Menéndez-Benito (2010) requiring the domain of the D to be non-singleton, a constraint that follows from (32). Possible variation of values would be an indirect result of the non-singleton domain constraint. The non-singleton domain constraint can thus account for *approximately* uses. Indifference and ignorance implications could also be connected, indirectly, to the variation across external alternatives one obtains if the domain is non-singleton, though exactly why such DPs are not good in cases like (28) is not quite clear. What the non-singleton constraint does not, however, account for is that it is not possible for this type of DP to occur under the immediate scope of negation or in generic contexts. A useful study that remains to be undertaken is to contrast in detail the properties of non-specificity markers that appear to target external alternatives such as *some*$_{SG}$, *algún* (Spanish), *eyze* (Hebrew) and no doubt lots of other such markers in the world's languages.

5. CONCLUSION

We have argued here that variation/stability of values across alternatives is relevant to understanding the notion of specificity and for making sense of the richness of specificity and non-specificity markers one finds within a language and cross-linguistically. Dividing particular Ds into specificity and non-specificity markers depending on whether they impose or limit variation of values for the variable they introduce is, we suggest, a useful step as well. The hope is that once the right constraints are formulated, the distribution and interpretation constraints on particular determiners will follow. A lot more work needs to be done, however, in order to fulfil this hope. The most urgent open issues involve formulating the empirical generalizations correctly so as to be able to see what the further subclasses are within each group, and then accounting for these generalizations in a principled fashion.

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