

## TWO DIFFERENT NOTIONS: SPECIFICITY AND SCOPE. EVIDENCE FROM ROMANIAN<sup>1</sup>

ALINA TIGĂU<sup>2</sup>

**Abstract.** This paper makes a contribution to the topic of *specificity* arguing that the various specificity types proposed in the literature have a common denominator best captured within Discourse Representation Theory by means of an anchoring function restricting the values the verifying embeddings may assign to the discourse referent of a specific DP. In particular, the connection between scope and specificity is discussed, establishing that the two are not necessarily related. Traditionally, specificity has been perceived as a case of ‘extreme’ wide scope, i.e. *widest scope* in that the interpretation of a specific indefinite seems to impose an additional restriction of *uniqueness* on its wide scope counterpart. Yet, Romanian data concerning clitic doubled and differentially marked indefinites strongly support the view that specificity should be divorced from scope in view of the fact that these specific indefinites are not necessarily wide scope.

**Key words:** specificity, scope, partitivity, indefinites.

This paper extends upon the various types of specificity discussed in the relevant literature with a view to uncovering their common denominator. This aim will in turn entail a discussion about the professed connectedness of specificity with partitivity or wide scope. It will be argued that neither partitivity nor wide scope are relevant when discussing specificity, the notions being independent one of the other. It follows that *partitive specificity* and *scopal specificity* boil down to cases of (epistemically) specific indefinites which are also understood as partitive or which take scope over another scope bearing expression respectively. Romanian clitic doubled and differentially object marked indefinites strongly support an account separating specificity from scope matters as these DPs may be specific while taking narrow scope with respect to another scope bearing expression.

Using DRT as a framework of analysis, it will be shown that specificity amounts to a restriction imposed on the variation of values that the discourse referent of a specific DP may be assigned, similar to the *anchoring function* proposed in Kamp and Reyle

---

<sup>1</sup> This research was supported by the Swiss Federal Fund through the Scientific Exchange Programme Sciex NMS-CH, no.12203 ‘*Syntax and Semantics of Indefinite Direct Objects*’. I would like to thank Alice ter Meulen, Alexandra Cornilescu, Hans Kamp, Donka Farkas, Klaus von Heusinger, Carmen Dobrovie-Sorin, Edgar Onea, Sarah Owayda, the audience at the RED workshop on Indefinites (Köln, 2014) and the Seminaire de Recherche at the University of Geneva for thought provoking questions, helpful suggestions and discussions. All remaining errors are exclusively mine.

<sup>2</sup> University of Geneva & University of Bucharest, Alina.Tigau@unige.ch, alina\_mihaela\_tigau@yahoo.com.

(1993). In other words, in the case of specific indefinites the embedding functions verifying the respective DRS in a model  $M$  will be restricted to assigning a unique, same value to the discourse referent introduced by the specific indefinite. This restriction will be imposed by an anchoring function, a property on the verifying embedding functions.

In order to accomplish these goals, a discussion about specificity types would be necessary as a starting point. This is indeed the focus of section 1. Section 2 extends upon the relatedness between wide scope and specificity and shows that the two notions are distinct one from the other. DRT is employed as a necessary tool to capture the relevant distinctions between the two. Section 3 resumes the idea that specificity should be distinguished from wide scope and provides arguments that an account of specificity as anchoring is on the right track. The details of this account are also presented. Section 4 contains the general conclusions.

## 1. THE EXTENSIVE DOMAIN OF SPECIFICITY

The notion of specificity has been an important topic in linguistic theory both in work on semantics as well as in studies dealing with the syntax-semantics interface and ever since Farkas's (1994/1995) influential paper it has been looked upon as an umbrella term subsuming the various ways in which the reference of indefinite DPs is established. The literature distinguishes between various types of specificity function of the manner in which the indefinite in question becomes specific i.e., comes to refer to a particular referent: *scopal specificity* distinguishes between two possible interpretations of an indefinite, function of whether it is dependent on some intensional predicate or quantifier. When dependent, the indefinite will be scopally non-specific. If, on the contrary, the indefinite is independent of the respective intensional predicate or the quantifier, the DP is said to be scopally specific.

*Epistemic specificity* represents another type of specificity which becomes relevant in a situation in which we seem to have the same contrast with respect to an indefinite which appears to be ambiguous between a specific and a non-specific reading, but there is no operator or quantifier responsible for this ambiguity. An *epistemically* specific indefinite would then denote the speaker's intended referent and will hence be interpreted as fixed with respect to the speaker's epistemic modal base. The notion of *specificity as d-linking*, captures the fact that an indefinite may also refer rigidly with respect to the epistemic modal base of another discourse referent (e.g., the subject or the indirect object). Von Stechow (2002) subsumes epistemic specificity and specificity as d-linking under the label of specificity as *referential anchoring*. In his view, a specific NP is functionally dependent on the referent of another expression. On the contrary, non-specific indefinites will obtain when the referential variable of the indefinite is bound by a non-referential expression i.e., an operator or an intensional predicate. As such the distinction between specificity vs. non-specificity boils down to the way in which the referential variable of the indefinite gets anchored.

Finally, Farkas (1994/1995) also brings into discussion *partitive specificity*. The notion is first introduced in Enç (1991) on account of the fact that, just like other specific indefinites, the range of possible referents is restricted. Hence, partitives denote a member

or a subset of a contextually familiar/given set (by positing this set one restricts the range of possible referents that the indefinite DP might denote).

This section contains an overview of the various specificity types concentrating on how specificity effects arise in each case and constitutes a first step towards indentifying the common mechanism underlying seemingly disparate situations.

### 1.1. Scopal specificity

One of the terms we have employed above is Farkas (1994/1995)'s *scopal specificity*, which distinguishes between two possible interpretations of an indefinite function of whether it is dependent on some intensional predicate or quantifier or not. When dependent, the indefinite will be scopally non-specific. If, on the other hand, the indefinite is independent of the intensional predicate or the quantifier in question, it is said to be scopally specific.

In (1) the indefinite *a Norwegian* interacts with the intensional predicate *want* and may either be interpreted outside its scope (scopally specific) or inside its scope (scopally non-specific). (b) actualizes the former reading, whereby we understand: 'There is a Norwegian such that John wants to marry her.' (c) actualizes the non-scopally specific reading of the indefinite: 'John wants that there is a Norwegian such that he should marry her.'

- (1) a. John wants to marry a Norwegian.  
 b. He met her last year.  
 c. He'll move to Norway to achieve this goal. (Farkas 1995: 3)

The indefinite may also interact with other operators. Consider example (2) below where a universal quantifier may be seen at work:

- (2) Everybody in this department read a book on specificity.

Again, the indefinite may be interpreted either outside or inside the scope of *everybody*. In the former case it is said to have a wide scope reading according to which: 'there is a (certain) book on specificity such that everybody in the department read'. When interpreted inside the scope of the universal QP, the reading which obtains is: 'everybody read a (possibly) different book on specificity'.

Finally, an indefinite may also interact with operators such as negation:

- (3) John didn't meet a linguist at the party.

Here, too, the indefinite *a linguist* may outscope the negation acquiring a scopally specific interpretation according to which: 'there was a linguist at the party such that John did not see'. The indefinite may also get interpreted inside the scope of negation as: 'John saw no linguists at the party'.

Having seen what is meant by *scopal specificity*, let us account for how the two readings (i.e., the specific and the non-specific one) obtain. Let us first consider examples

like (1) above where the indefinite interacts with an intensional predicate. Just like any intensional predicate, *want* introduces a set of possible worlds accessible from a given world through an accessibility relation. When the indefinite is interpreted as scopally specific i.e., independent of the intensional predicate, it will be valued in relation to the world  $w$  with respect to which the main sentence is itself valued. Thus, the value of the indefinite is fixed with respect to the domain of  $w$ . The rigid reference of the indefinite comes as a consequence of its valuation with respect to  $w$ , the world at which the main sentence is valued.

On the other hand, when the indefinite is dependent on the intensional predicate i.e., scopally non-specific, it will be evaluated in relation to the set of worlds introduced by the predicate. This is why in this latter case, the value of the indefinite may not be fixed as it varies from world to world, hence the non-rigid reference.

As already shown above, scopal specificity may also obtain when an indefinite interacts with a QP such as *everybody* in example (2) above. In its scopally specific reading, the indefinite is independent of the universal QP: as such its value must be fixed independently of the domain of quantification of the QP. As pointed out by Farkas (1995), this amounts to saying that the indefinite is rigid with respect to the cases that form the domain of quantification of the universal. When the indefinite is scopally non-specific, i.e., dependent on the universal QP, its value will vary over the domain of quantification. As such its reference will be non-rigid.

## 1.2. Epistemic specificity

*Epistemic specificity* represents another type of specificity which becomes relevant in a situation in which we seem to have the same contrast with respect to an indefinite which appears to be ambiguous between a specific and a non-specific reading but there is no operator or quantifier that could be held responsible for this ambiguity. This seems to be the case in (4) where the indefinite *a professor* may either refer to a specific individual that the speaker has in mind or not. In the former case, the indefinite is said to be epistemically specific as it denotes the speaker's intended referent.

- (4) Voi vizita un profesor săptămâna viitoare.  
'I will visit a professor next week.'

This type of specificity is accounted for by relating the specific indefinite to the epistemic state of the speaker. In what follows we will extend upon the analysis in Farkas (1995).

Following Stalnaker (1979), Farkas starts by defining the *common ground*, a set of propositions  $P_o$  which the participants in the conversation assume to be true. The common ground itself determines the *context set*, a set of possible worlds  $W(P_o)$  containing all those worlds in which the propositions in the common ground are true. Whenever a new assertion is made, such as (4) above, if that assertion is accepted then it updates the context set to  $P_1$ , i.e.,  $P_o$  + the newly accepted assertion. Adding (4) to  $P_o$  will amount to claiming that there is a professor that the speaker will visit: the indefinite will refer non-rigidly with respect to  $W(P_1)$  i.e., it will vary from world to world.

The set of propositions that an individual  $i$  considers to be true with respect to the actual world,  $P_i$  form the epistemic modal base of  $i$ .  $P_i$  represents the common denominator of a set of worlds  $W(P_i)$  in which all the propositions in the set  $P_i$  are true.  $W(P_i)$  represents thus the set of worlds that are epistemically accessible to the individual  $i$ . If the indefinite *a professor* is epistemically specific i.e., the speaker has fixed its referent, this will amount to saying that the indefinite refers rigidly with respect to the set  $W(P_i)$ . If, on the other hand, the indefinite is non-specific, it will refer non-rigidly with respect to the epistemic modal base of the speaker. Notice that in both cases, the indefinite will refer non-rigidly with respect to the set of worlds determined by the common ground.

### 1.3. Extending epistemic specificity – relative specificity

Kennelly (1999) introduces the notion of *specificity as d-linking*, pointing out that an indefinite may also refer rigidly with respect to the epistemic modal base of another discourse referent (e.g., the subject or the indirect object). This would be the case in (5) which might be interpreted as ‘Michael helps a certain friend of his’ i.e., the indefinite is not referential but it is rigidly fixed with respect to the epistemic set.

- (5) Mihai îl ajută pe un prieten de fiecare dată când este nevoie.  
 Michael him.cl helps *pe* a friend whenever necessary  
 ‘Michael helps a friend whenever necessary.’

Kennelly (1999) thus extends the domain of epistemic specificity by interpreting it as the possibility of anchoring an indefinite both to the epistemic modal base of the speaker as well as to that of another referent already introduced in the discourse.

This is in line with various other observations put forth by Enç (1991) who seems to speak about the same case of specificity when referring to *relational specifics* i.e., DPs which are specific by virtue of their being linked to another discourse entity.

### 1.4. Specificity as referential anchoring

Von Heusinger (2002, 2011) finds a common denominator for (epistemic and d-linked) specificity types which he labels *referential anchoring* i.e., a specific NP is functionally dependent on the referent of another expression. Non-specific indefinites will obtain when the referential variable of the indefinite is bound by a non-referential expression i.e., an operator or an intensional predicate. As such the distinction between specificity vs. non-specificity boils down to the way in which the referential variable of the indefinite gets anchored. An indefinite may thus be anchored to the speaker of an utterance, to the subject of the sentence or to a quantified NP. Let us see this at work in (6) taken from von Heusinger (2002, ex. 58):

- (6) Bill gave each student a (certain) task to work on.

One possible way of interpreting this sentence is to have the referential variable of the indefinite *a task* bound by the speaker i.e., ‘each of the students received the same task from Bill and this task represents the intended referent of the speaker’. Another possibility

would be to link the variable introduced by the indefinite to the subject of the sentence: ‘each student received the same task and this task is the intended referent of Bill’. In both these cases the reference of the specific indefinite *a task* does not vary function of the students.

Finally, the specific indefinite may be referentially anchored to the indirect object expressed by means of a universally quantified DP, *each student*. In this latter case its reference will co-vary with the reference of the universal QP. Notice that, although the indefinite is scopally non-specific in this last case, it remains (epistemically) specific by being anchored to a discourse participant as the intended referent.

### 1.5. Partitive Specificity

The notion of *partitive specificity* is firstly brought into discussion in Enç (1991) on account of the fact that, just like in the case of other specific indefinites, the range of possible referents is restricted. Thus, partitives denote a member or a subset of a contextually familiar/given set (by positing this set one restricts the range of possible referents that the indefinite DP might denote). This is the case of (7) where the accusative case marker *ı* on the indefinite *kız-ı* indicates that the two girls in question represent a subset of the set of several children that entered the room introduced in (a).

- (7) a. Oda-m-a                      birkaç   çocuk   gir-di.  
 Room-1.sg.-Dat.      several child   enter-Past.  
 ‘Several children entered my room.’
- b. İki                      kız-ı                      tanı-yor-du-m.  
 two                      girl-Acc.                      know-Prog.-Past-1.sg.  
 ‘I knew two girls.’                      Enç (1991: 17)

However, as pointed out by Farkas (1995), it is easier to establish a difference between partitive specificity and the other types of specificity than to establish the family resemblance<sup>3</sup>. This is so because even though they seem to be united by a narrower range of possible referents than in the case of non-specific indefinites, the source of this range restriction seems to draw a line between scopal and epistemic specificity on the one hand and partitive specificity on the other. Thus, with scopally or epistemically specific indefinites the range of possible referents obtains through an operation of anchoring the referent of the indefinite itself to either the context set (scopal specificity) or to the epistemic modal base of the speaker or another relevant discourse referent (epistemic specificity). With partitives on the other hand, the range is established through their superset, which is familiar/given. A choice is then performed out of this set.

<sup>3</sup> When introducing the notion of partitive specificity, Farkas (1994) employs the well-known term *family resemblance* implying that the various types of specificity extended upon, rather than being related through one common feature are in fact connected through a series of partially overlapping similarities with no one feature common to all specificity types, just like in Wittgenstein’s game example.

As pointed by von Heusinger (2002), however, this choice may be specific or not<sup>4</sup> and it is actually this operation which will render a partitive specific (i.e., if the choice is specific) and not partitivity per se. Nevertheless, this operation boils down to the two other types of specificity (epistemic or scopal specificity) and it is not related to partitivity as such. We may thus talk about specific partitivity (i.e., the referent refers rigidly with respect to the given superset) and non-specific partitivity (the referent refers non-rigidly with respect to the superset) as illustrated in the example below built on example (8) in Farkas (1994):

- (8)
- a. John wants to meet a friend of Jane's..
  - b. He does not have a preference, as long as it is a friend of Jane's that he meets.
  - c. He has a particular friend of Jane's in mind.

In example (8a), the indefinite *a friend* is an overt partitive which may either be interpreted as scopally and epistemically specific as in (8c) or as non-specific (8b).

On account of these differences recent work<sup>5</sup> on specificity has proposed that it should be divorced from partitivity.

## 2. TOWARDS A UNIFYING ACCOUNT OF SPECIFICITY

Having discarded *partitive specificity*, the relevant notions to address in an attempt to provide a unified account of specificity would be *scopal specificity* and *epistemic specificity* (including here *specificity as referential anchoring* and *specificity as d-linking*).

In an attempt to unify the two notions, a discussion of the relation between scope and specificity seems necessary, primarily because specificity has been traditionally related to wide scope on account of the fact that the interpretation of a specific indefinite seems to obtain by way of a restriction on its wide scope counterpart.

(9) is ambiguous between a wide scope and a narrow scope interpretation of the indefinite *a book on Semantics*. A wide scope reading amounts to: 'There is at least one (possibly more than one) book on semantics such that every student read it', while under a narrow scope interpretation, the same sentence reads as 'every student read at least one (or possibly different) book(s) on semantics'.

- (9) Orice student a citit o carte de semantică.  
'Every student read a book on Semantics.'

There is, however, a further distinction to draw between a wide scope reading and a *specific* one: under a specific interpretation of the indefinite (9) reads as 'there is (at most) one book on Semantics such that every student read'.

<sup>4</sup> For discussion of non-specific partitivity see Farkas (1994), von Heusinger (2002), von Heusinger and Kornfilt (2005), von Heusinger (2011) a.o.

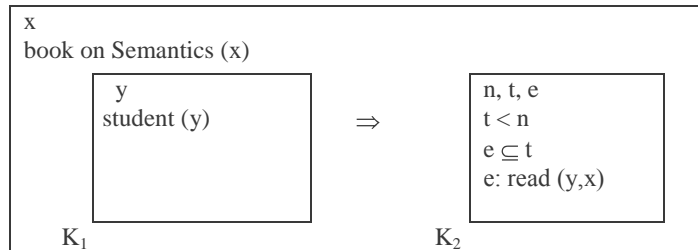
<sup>5</sup> See von Heusinger (2002), Kornfilt & von Heusinger (2005), von Heusinger (2011) a.o.

Note that from this perspective, specificity seems a rather extreme case of wide scope interpretation requiring uniqueness of reference for the discourse referent contributed by the indefinite. In fact, the term *widest scope* has been extensively employed so as to describe specific indefinites. On this account, specificity presupposes wide scope. One purpose of this paper is to question this connection between scope and specificity and to show that the two notions should be separated<sup>6</sup>. To this aim DRT will prove extremely useful in providing us with the necessary tools to capture and formalise the difference between the two.

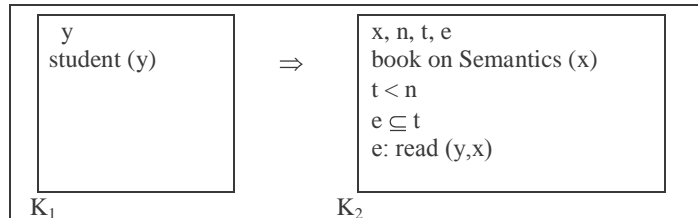
### 2.1. Scope in Dynamic Semantics

DRT encodes scope relations structurally at the level of the relevant DRS: two sentences which only differ in scope relations give rise to structurally different DRSs. As already explained above, (8) is ambiguous between two readings, function of the scope relations holding between the universal QP and the indefinite. In DRT, (9) gives rise to DRSs (10) and (11), function of whether the indefinite outscopes the universal quantifier or not. In (10), the wide scope indefinite is inserted in the main DRS, whereas in (11) it remains in the consequent of the conditional structure contributed by the universal QP and is within the scope of the QP.

(10)



(11)



The structural difference between the two DRSs in (10) and (11) accounts for the difference of interpretation of the indefinite: if its reference marker  $x$  is in the main DRS, it

<sup>6</sup> I am not the first to do so: see Geurts (2002) a.o. Farkas (2002a,b,c) may also be looked upon as an attempt to distinguish between specificity and scope as it endeavours to show that specificity comes in several flavours, including scopal specificity

has wide scope, whereas if it is hosted in a subordinate DRS it will have narrow scope with respect to the constituent that  $K_2$  is subordinated to.

Hence, the issue of wide/narrow scope interpretation boils down to the position the reference marker of a scope bearing expression occupies with respect to another: if the former, say  $x$ , is to be positioned in a superordinate DRS with respect to the latter, say  $y$ , then  $x$  takes scope over  $y$ , while if  $x$  is hosted in a subordinate DRS relative to the one hosting  $y$ , then  $x$  is said to be in the scope of  $y$ .

Let us now turn to how this difference of interpretation is obtained. Indefinites are non-quantificational DPs: as such whatever quantificational force they end up with (e.g., existential, universal/distributive), that quantificational force is external to them and obtains as a consequence of the context they occur in. In DRT this amounts to saying that the referent contributed by an indefinite inherits quantificational force by the embeddability conditions holding for the structure in which it occurs.

In (10) the discourse referent contributed by the indefinite is inserted in the main DRS and has existential force with wide scope over the complex condition introduced by the universal QP. Nevertheless, no existential quantification is used to obtain this result. The effect of existential quantification on the indefinite obtains as a result of the truth conditions for the DRS requiring that there be *at least* one verifying embedding of the DRS into the model<sup>7</sup>: the DRS is true if there is at least one verifying embedding  $f$  such that it assigns individuals from the domain of the model  $\text{Dom}$  to the reference marker  $x$  in such a way that  $f(x)$  be a book on semantics and that the complex condition consisting of two sub-DRSs joined by the implication sign be true.

The complex condition is true i.e.,  $f$  verifies  $K_1 \Rightarrow K_2$  in  $M$  iff for every extension  $g$  of  $f$  such that  $\text{Dom}(g) = \text{Dom}(f) \cup U_{K_1}$  which verifies  $K_1$  in  $M$  there is an extension  $h$  of  $g$  such that  $\text{Dom}(h) = \text{Dom}(g) \cup U_{K_2}$  and  $h$  verifies  $K_2$  in  $M$ . This amounts to saying that for every such assignment  $g$  which assigns a student to  $y$  there must be an extended assignment  $h$  verifying that that student reads the book on semantics.

The main DRS in (11) contains a complex condition consisting of two subordinate DRSs joined by the implication sign, and no reference markers. Again, the DRS is true if there is at least one embedding  $f$  which verifies this DRS in  $M$ . In other words, for every assignment  $g(y)$  that is a student there must be an extended assignment  $h$  such that  $h(x)$  is a book on semantics that the student reads. Notice that the truth conditions of the DRS in (2.4) account for the narrow scope interpretation of the indefinite. The reference marker introduced by the indefinite co-varies with that introduced by the universal QP as a consequence of occurring in the consequent of the conditional DRS.

Scope relations in DRT are thus captured structurally at the level of the DRS: a scoping element hosted by a superordinate DRS may outscope another placed within a subordinate DRS but not the other way around.

## 2.2. Wide scope and specificity

In a wide scope reading of the indefinite, (9) has the corresponding DRS in (10). Interpreting this DRS amounts to embedding it into a model as shown in section 2.1 above: it will be deemed to be true if there is *at least* one embedding  $f$  such that all conditions in

<sup>7</sup> A model  $M$  is a construct  $\langle W, D, I \rangle$  wherein  $W$  represents a set of worlds,  $D$  is the domain of entities and  $I$  is the interpretation function assigning intensions to constants. A DRS is true in  $M$  if it can be embedded in it i.e., if it can be considered to represent a part of  $M$ .

the DRS are verified in the model. The fact that there might be more than one embedding for the DRS in (10) allows for the discourse referent introduced by the indefinite to be assigned more than one value in the set of entities of the model. Consequently, wide scope does not presuppose uniqueness of value for the respective discourse referent.

On the other hand, if the values that the discourse referent contributed by the indefinite are somehow restricted to one unique referent only, that indefinite will be specific, besides having a wide scope reading. Thus, *specificity* comes into picture when the indefinite is fixed with respect to the choice of its referent. Wide scope indefinites may be specific, but need not necessarily be so.

(9) may also have an interpretation according to which there is one unique book on semantics, say *Introduction to Natural Language Semantics*, such that every student read it. In this reading, there is only a unique referent for the discourse referent introduced by the indefinite. In DRT this is captured by restraining the embeddings verifying the DRS in such a way that they can only assign one and the same value to the respective discourse referent. The question would be what exactly restricts the assignment of values to the discourse referent of the indefinite. Furthermore, how is this to be represented in DRT? These questions will be the focus of the next section.

### 3. UNIQUENESS OF REFERENCE: ANCHORING

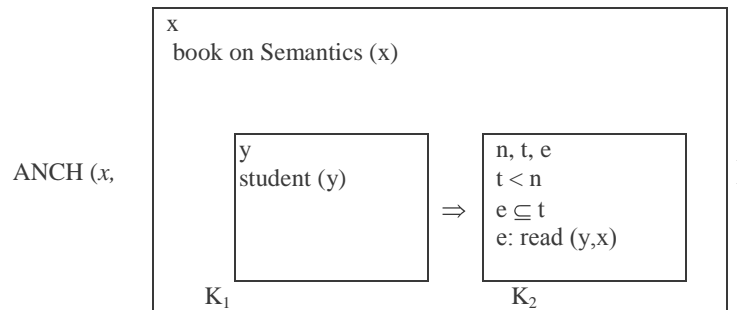
A specific interpretation of an indefinite makes unique reference to exactly one of the suitable entities in a domain of entities, which meets the descriptive content of the indefinite, and obtains by restricting the assignments of the verifying embedding functions in such a way that there is only one value assigned to the discourse referent introduced by the indefinite. But how should this restriction on the assignments be represented in DRT? Kamp & Reyle (1993), put forth the notion of *anchoring* as a restriction of the assignment functions evaluating the discourse referent of a specific indefinite. This mechanism, which posits a property of embedding functions similar to that proposed for proper names<sup>8</sup>, amounts to a function mapping the discourse referent of an indefinite, say  $x$ , onto an entity in the domain, say  $e$ . The result of applying this function will be an anchored DRS i.e., a DRS in whose universe of discourse referents one of these discourse referents is anchored. The anchoring function constrains the embedding functions that verify the anchored DRS relative to a model in the sense that they all have to agree with the anchor, while verifying all the other conditions of the DRS in  $M$ . In Kamp & Reyle (1993), the anchor is presented as a condition inside the relevant DRS.

However, if an anchor is a property of embedding functions of a DRS, which are external to the DRS itself then the anchor itself should be external to that DRS. Indeed, later development in Kamp & Bende-Farkas (ms.) and Kamp (ms.) correct this. Building on the intuition in these later developments, we will represent the anchor as a function taking as its arguments the relevant discourse referent and the DRS capturing the relevant conditions holding for that discourse referent as well as its relations to other relevant discourse referents. Section 3.2 will further extend on the right way to capture anchoring.

<sup>8</sup> The similarity between proper names and specific indefinites with respect to their rigidity of reference has been noticed as far back as Karttunen (1968)

In view of our discussion concerning the relatedness of scope and specificity, however, let us tentatively adopt the representation in (12):

(12) Every student read a book on Semantics: From Discourse to Logic.



The anchoring function taking  $x$  and the relevant DRS as arguments ensures that  $x$  gets assigned only one value by all embedding functions verifying that DRS (12) is true relative to model  $\mathbf{M}$ . All alternative assignments to  $x$  also assign this value and there is no alternative assignment that does not assign this value to  $x$ .

Notice that the anchoring mechanism accounting for a specific interpretation is independent of the structural considerations related to scope. A natural question would consequently be if it is indeed possible to analyze specificity as independent of scope. A situation that would prompt an affirmative answer would be the existence of specific indefinites interpreted as such in the absence of scope or of specific indefinites that take narrow scope with respect to another scope bearing constituent. This is the focus of the next section.

### 3.1. Specificity is not parasitic on scope. Evidence from Romanian

In the previous section it was shown that specificity amounts to a mechanism which restricts the values a certain discourse referent may be assigned. Within DRT this translates into positing an anchoring function which restricts the value assignments on that discourse referent. Wide scope, on the other hand, is captured through structural considerations: elements taking wide scope get inserted into the main DRS or a superordinate one relative to the elements they are outscoping. Specificity perceived as widest scope possible implies that the discourse referent in question is inserted in the main DRS (Kamp & Reyle 1993 p. 289ff). In this way, one makes sure that it will outscope all other scope bearing expressions.

Notice, however, that by doing so one does not necessarily account for the uniqueness of value this discourse referent has to take in order for the indefinite that introduces it to be specific: when verifying this DRS relative to a model there may still be more than one function verifying it. In order for such a DRS to account for the intended specific interpretation, one needs to restrict the values of the corresponding discourse

referent to only one by imposing a restriction on the properties of the functions embedding the DRS into the model. This is done by having an anchoring function such that all embeddings agree to it with respect to the values they may assign to the anchored discourse referent. As such, the two notions no longer seem dependent on each other, as first appeared to be the case. Confirming these theoretical considerations, (13) shows how an indefinite may be specific, without interacting with other scope bearing expressions.

- (13) Maria l-a întâlnit pe un coleg de-al ei ieri. Era supărat.  
 ‘Mary met a colleague of hers yesterday. He was upset.’

The discourse in (13) may give rise to an interpretation according to which there is a particular colleague of Mary whom she met and who was upset, where the discourse referent of the indefinite is anchored to the subject Mary or the speaker.

However, the existence of cases where indefinites may be specific when not interacting with other scope bearing expressions does not preclude the possibility for *scopal* specificity i.e., the kind of specificity which feeds on scope. Only a case of specific indefinites that may take narrow scope with respect to another scope bearing expression would. Romanian is crucial in this respect in that clitic doubled and differentially object marked indefinites allow such a reading. In fact, (14) presents us with this exact situation: the indefinite *a famous actor* is specific in the sense that it is anchored to the epistemic modal base of each spectator, but it has narrow scope with respect to the universal QP *every spectator*, as the admired actor may differ between spectators. If specificity were dependent on wide scope, such a reading should not be possible.

- (14) Fiecare spectator l-a admirat pe un actor celebru.  
 Each spectator him.cl-has admired *pe* an actor famous.  
 ‘Each spectator admired a famous actor.’

The acceptability of (14) in this reading proves that specificity should not be seen as parasitic on scope. Most probably, cases of *scopal specificity* in the sense of Farkas (1994/1995) could be reduced to instances of *epistemically specific* DPs taking wide scope over another scope bearing expression. This is surely the case of (14): on a wide scope reading, the indefinite may be interpreted as specific if anchored to the epistemic modal base of the speaker or alternatively to that of each spectator.

If this is correct, then the only remaining notion relevant in our discussion of specificity is that of *epistemic specificity*. This brings us to a discussion concerning the contextual restriction of specific indefinites, necessarily anchored to a mental state, as well as to one on the relation between an anchored discourse referent and the model. In other words, anchoring a discourse referent with respect to the epistemic modal base of an agent does not necessarily presuppose the existence of a corresponding entity in the model.

This prompted Kamp & Bende Farkas (ms.) to distinguish between internal and external anchors: in the former case, all conditions are verified in the intensional domain, while in the latter, they are verified both in the extensional domain and in the intensional

one. Anchoring thus makes the discourse referent rigid relative to its *domain*, as the value, once anchored, cannot change anymore and the same referent must be anchored to both the extensional and the intensional domains. The next section will expand upon these considerations and provide a formalisation of specific readings.

### 3.2. Specific indefinites in DRT

Consider again (12) where the specific indefinite *a book on semantics* introduces an anchored discourse referent  $x$ . The referent is first (internally) anchored to the mental state of the speaker and may be further (externally) anchored, if there is indeed an entity in the domain of the model in which the relevant DRS is verified, such that it is assigned as a value to  $x$ . An anchoring function ensures that  $x$  gets assigned only one value by all embedding functions verifying that DRS (12) is true in model  $\mathbf{M}$ . All alternative assignments to  $x$  also assign this value and there is no alternative assignment that does not assign this value to  $x$ .

The mechanism of anchoring should further capture both *external* and *internal anchoring*: *external anchoring* requires that the discourse referent is anchored in the extensional domain and that all conditions be verified in this domain (the actual situation). *Internal anchoring* presupposes that the anchor represents a component of an attitude: e.g., if the speaker knows the referent, he has an *internally* anchored representation of the referent introduced by the DP. In (15) the speaker has a representation for the man passing by and this is captured in DRS (16) by anchoring the respective discourse referent to the mental state of the speaker  $s_s$ ; the second component of the construct represents the causal relationship that the speaker considers himself to stand in with respect to the entity he has a representation for: this relation amounts to the speaker having seen the entity at the time, when he is in the represented state (wearing a green coat and passing by).

- (15) Am văzut un om trecând. Purta un pardesiu verde.  
 ‘I saw a man passing by. He was wearing a green raincoat.’

(16)  $ANCH_{S_s}$       (x, 

$x, n, y, t_1, i, e, s, t_2, u$
man (x) $i$ see x at $t_1$ $t_1 < n$ $e \subseteq t_1$ e: pass by (x) Rpt: = e $s \text{ O } t_2$ $t_2 < n$ $e \subseteq s$ $u=x$ green coat (y) s: u be wearing y

 )

Note that *internally anchored* material does not necessarily have to be *externally anchored*. When an anchor is only internal, the material in question represents information that is psychologically real, which amounts to saying that the conditions are verifiable relative to the mental state of the speaker only (a non-actual situation); the conditions are not, however, verifiable relative to the actual situation. This is the case captured in DRS (16). If, on the other hand, the representation of the speaker also corresponds to the actual situation, there also an external anchor, anchoring the discourse referent in question to the state of the world  $s_w$  as in (17).

(17)  $ANCH_{S_w/S_w}$  (x, 

$x, n, y, t_1, i, e, s, t_2, u$
man (x)
$i$ see x at $t_1$
$t_1 < n$
$e \subseteq t_1$
$e$ : pass by (x)
Rpt: = e
$s \supseteq t_2$
$t_2 < n$
$e \subseteq s$
$u=x$
green coat (y)
$s$ : u be wearing y

)

DRS (17) shows that  $x$  is both internally anchored i.e., stands for a mental representation of the speaker, as well as externally anchored i.e., the conditions are also verifiable in the actual situation.

#### 4. CONCLUSIONS

This paper discussed several types of specificity proposed in the literature with a view to uncovering their common denominator. Besides a general overview on specificity, section 1 argued that the source of specificity with indefinites labelled *partitively specific* is not the fact that the values of the relevant discourse referent are restricted to a familiar set, but springs from the same mechanism which is at work in the case of *epistemic specificity*.

Section 2 started from the widely held view that specificity and wide scope are related in that the former represents an extreme case of wide scope reading (*widest scope*) which in DRT translates into a restriction imposed on the embedding functions verifying the respective DRS in a model. In the case of wide scope indefinites that are not specific there is a set of embeddings that assign (possibly different) values to the discourse referent introduced by the indefinite. When it comes to specific readings, however, the value the discourse referent of the specific indefinite may be assigned must be unique.

In order to get a wide scope interpretation, the discourse referent of the indefinite together with its condition have to be placed in a position that is superior to the one occupied by the element the indefinite takes scope over (scope related to structure). For DRT, this explains why wide scope (as well as specific) indefinites may bind pronouns across discourse as opposed to narrow scope ones. In the view that specific indefinites represent an extreme case of wide scope interpretation, such DPs would naturally target DRSs that are structurally suitable in the same way that wide scope indefinites do.

Nevertheless, the fact that indefinites may be specific in the absence of other scope bearing expressions as well as the possibility of having specific indefinites that take narrow scope relative to another scope bearing expression prompts one with an argument that specificity is not dependent on wide scope. Romanian clitic doubled and differentially object marked indefinites provide strong evidence in favour of this account.

#### BIBLIOGRAPHY

- Enç, M., 1991, "The Semantics of Specificity", *Linguistic Inquiry* 22, 1–25.
- Farkas, D., 1994, "Specificity and scope", in: L. Nash, G.Tsoulas (eds.), *Langues et grammaires*, 1, 119–137.
- Farkas, D., 1995, "Specificity and Scope", ms. University of Santa Cruz.
- Farkas, D. F., 2002a, "Specificity distinctions", *Journal of semantics*, 19, 1, 3, 213–243.
- Farkas, D. F., 2002b, "Varieties of indefinites", *Proceedings of SALT*, 12, 59–84.
- Farkas, D., 2002 c, "Extreme Non-Specificity", in: C. Beyssade *et al.* (eds.), *Romance Languages and Linguistic Theory 2000*, Amsterdam, John Benjamins, 127–151.
- Geurts, B., 2002, "Donkey business", *Linguistics and Philosophy*, 25, 129–156.
- Kamp, H., ms. 2014, "Using Proper Names as Intermediaries between Labelled Entity Representations", Ms. University of Stuttgart
- Kamp, H., U. Reyle, 1993, *From Discourse to Logic*, Dordrecht, Kluwer.
- Kamp, H., A. Bende-Farkas, ms., "Epistemic Specificity from a Communication-theoretic Perspective".
- Karttunen L., 1968, "What Do Referential Indices Refer To", Technical Report P-3854, RAND Corp. Reproduced by Indiana University Linguistics Club.
- Kennelly, S., 1999, "Multiplication", ms. UiL-OTS
- von Heusinger, K., 2011, "Specificity", in: K. von Heusinger, C. Maienborn, P. Portner (eds), *Semantics. An International Handbook of Natural Language Meaning*, Berlin/Boston, de Gruyter.
- von Heusinger, K., 2002, "Specificity and definiteness in sentence and discourse structure", *Journal of Semantics*, 19, 245–274.
- von Heusinger, K., J. Kornfilt, 2005, "The case of the direct object in Turkish: Semantics, Syntax and Morphology", *Turkic Languages*, 9, 3–44.
- Stalnaker, R., 1979, "Assertion", *Syntax and Semantics 9: Pragmatics*, Academic Press, 315–332.