Demonstratives and saliency

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Abstract. Kaplan argues for the view that demonstratives are direct reference devices on the grounds of their behavior in modal and temporal contexts. Some alternative approaches to the semantics of demonstratives have been proposed (King (2001), Roberts (2002), Elbourne (2008)) in order to cover some uses of demonstratives that Kaplan's theory cannot account for. However, King, Roberts, and Elbourne do not give a sufficient explanation of the behavior of demonstratives in modal and temporal contexts. The diagnosis of this failure is that a crucial condition is missed: demonstratives refer to the most salient object satisfying their descriptive content in a context. This condition is the essential feature which differentiates demonstratives from definite descriptions. Once this feature is taken into account, an explanation of the behavior of demonstratives follows straightforwardly.

Keywords. Semantics of demonstratives, direct reference theory of demonstratives, saliency.

0. Introduction

David Kaplan mounted a set of arguments in favor of the view that demonstratives and pure indexicals do not express individual concepts but are devices of direct reference. Kaplan's arguments are based on the behavior of demonstratives and pure indexicals in modal contexts and on their difference from definite descriptions. Recently, some treatments of demonstratives that do not accept Kaplan's claim have been proposed. King (2001) has put forward a quantificational approach to complex demonstratives, Roberts (2002) and (2003) has proposed a dynamic approach to pro-

nouns and demonstratives, while Elbourne (2008) has proposed an interpretation of indexicals and demonstratives as expressing individual concepts.

While I am sympathetic with some of these attempts, I believe, however, that King's, Robert's and Elbourne's approaches do not directly answer Kaplan's arguments and just assume that, at least in some cases, demonstratives behave as rigid designators. E.g. King (2001) just maintains that in perceptual cases the descriptive content of a complex demonstrative must be satisfied in the utterance world and in the utterance time while Elbourne (2008) states that a hidden operator forcing a wide scope reading is present. Actually, Kaplan had foreseen the formulation of theories like these, to which he objects that they are *ad hoc*: once the descriptive content is loaded into the proposition, we can see no reason why it should not take part in scope interactions. One can assume the contrary, but this assumption is entirely *ad hoc*.

In this paper, I will defend the idea that demonstratives are not direct reference devices from Kaplan's objection. I will show that demonstratives differ from definite descriptions because they refer to the most salient object satisfying their descriptive content in the context, while definite descriptions refer to the unique object satisfying their descriptive content. I think that this difference suffices to account for the different behavior of demonstratives in modal contexts and there is no need to embrace the thesis that they are direct reference devices. I believes that this treatment can be extended to anaphoric demonstratives and to at least some uses of pure indexicals, but I will leave this extension for another occasion.

The theory proposed here has some resemblance to that of Roberts (2002) and (2003). However, Roberts thinks that, while pronouns refer to the most salient object satisfying their descriptive content, demonstratives refer to the demonstrated object. Yet, her concept of demonstration is very broad and sometimes it seems to merge with that of salience. In the present view, the main semantic feature of both demonstratives and pronouns is to refer to the most salient object and deictic gestures are just one of the means used by speakers to make an object salient.

This paper is structured as follows: in sect. 1 Kaplan's arguments in favor of his thesis are reviewed while some problems that thesis faces are dealt with in sect. 2. In sect. 3, a theory of salience is worked out and the role it plays in accounting for the semantics of demonstratives is highlighted in sect. 4. In sect. 5, this semantics is compared to that of definite descriptions. In sect. 6, how this semantics accounts for Kaplan's data will be shown. Sect. 7 concludes the paper.

1. Kaplan's reasons

As is well known, David Kaplan maintains that indexicals and demonstratives are direct reference devices. Kaplan's use of the expression "direct reference" – expression coined by Kaplan himself – needs some clarification. By using this expression, he

does not mean that there is no semantic intermediary between indexicals and their referents. In fact, he considers the character of indexicals as a function from contexts to referents¹:

Now the character is part of the meaning of indexicals since in order to know the meaning of an indexical one needs to know the character of the indexical². Genoveva Marti notices³ that the concept of "direct reference" can be interpreted in two different ways: 1) it may mean that the meaning of a designator is nothing but the object designated (Marti calls this interpretation Millianism); 2) it may mean that the contribution of the designator to the truth conditions of the sentences in which it occurs is nothing but the object designated. The latter interpretation does not rule out that the meaning of a designator has further parts besides the referent; it simply rules out that such parts enter into the truth conditions of the sentence, namely into the proposition expressed by the sentence. When Kaplan says that indexicals refer to their referents directly, *directly* must be understood in the latter way since only the referent is part of the truth conditions, although the character is part of the meaning. Notice that this interpretation of the concept of direct reference implies the separation of two notions – that of meaning and that of truth conditions – which has often been held to be coincident.

Why does Kaplan refuse the complete identification of meaning and truth conditions? His claim is based on the behavior of indexicals in contexts in which modal, temporal, and spatial operators are present. In particular, he points out that definite descriptions and indexicals behave differently in the presence of these operators and quantifiers:

- (1) The president of the Republic could have been a democrat
- (2) This president of the Republic could have been a democrat
- (1) has two readings: it can mean that the one who is actually the president of the Republic could have been a democrat in another possible world; or it can mean that a president different from the actual one could have been elected and that this person could have been a democrat.

On the first reading, the description takes large scope over the modal operator, on the second one, narrow scope. In evaluating the first reading, first of all the person who is actually the president of the Republic must be identified; then it must be ascertained if in at least one possible world this person is a democrat. In order to evaluate

¹ More accurately, the character is a function from contexts to intensions. However, since as far as indexicals are concerned, the intension is a constant function from evaluation circumstances to referents, it can be ignored.

² Cfr. Kaplan (1989a), p. 498 "Indexicals, in general, have a rather easily statable descriptive meaning"; p. 505 "Because character is what is set by linguistic conventions, it is natural to think of it as *meaning* in the sense of what is known by the competent language user".

³ Cfr. Marti (1995).

the second reading, it must be evaluated if there exists at least a possible world w in which the person who is the president of the Republic in w is a democrat in w.

(2) has only the first reading: the referent of the demonstrative "this president of the Republic" must be found in the utterance context and, by consequence, in the utterance world. Thus (2) can only mean that the person who is actually the president of the Republic is a democrat in another possible world.

We can observe the same phenomenon with temporal operators:

- (3) In 1989 the president signed the decree
- (4) In 1989 this president signed the decree

Again (3) has two readings. It can mean either that the person who is president at the moment of the utterance signed the decree in 1989 or that the person who was president in 1989 signed the decree in 1989.

(4) has only the first reading: it cannot mean that the person who was president in 1989 signed the decree, but only that the person who is the president at the moment of the utterance signed the decree in 1989. Again, the referent of the indexical must be contained in the utterance context.

Why do indexicals behave differently from definite descriptions in the presence of modal and temporal operators? Two hypothesis are possible: 1) indexicals load a descriptive content (the character) into the proposition but for some reason they always take the largest scope; 2) Indexicals are direct reference devices in the second of the two senses listed above: they load only their referents into the proposition. Modal and temporal operators cannot operate on the character simply because it is not part of the proposition.

Kaplan embraces 2) and refuses 1) since he does not see why the descriptive content of an indexical, once loaded into the proposition, should escape operators. In Kaplan's words:

It may be objected that this only shows that indexicals always take *primary* scope (in the sense of Russell's scope of a definite description). This objection attempts to relegate all direct reference to implicit use of the paradigm of the semantics of direct reference, the variable. Thus (4) [it is possible that in Pakistan, in five years, only those who are actually here now are envied] can be transformed into (...)

(5) $\exists w \exists p \exists t \ (w = \text{the actual circumstance} \land p = \text{here} \land t = \text{now} \land \lozenge$ In Pakistan In five years $\forall x \ (x \text{ is envied} \rightarrow x \text{ is located at } p \text{ during } t \text{ in } w)$)

But such transformation, when thought of as representing the claim that indexicals take primary scope, does not *provide* an alternative to Principle 2 [that states that indexicals are direct reference devices], since we may still ask of an utterance of (5) in a

context c, when evaluating it with respect to an arbitrary circumstance, to what do the indexicals 'actual', 'here', and 'now' refer. The answer, as always, is: the relevant features of the context c (Kaplan (1989a), p. 499).

No matter how strongly you attempt to evaluate the descriptive content of indexicals with regards to times, places, possible worlds different from those of the context: you will never be able to do so. Such a descriptive content will remain obstinately attached to the utterance context and will require to be evaluated there. According to Kaplan, this is a sure symptom that the evaluation of the character occurs *before* it can establish any relation with the other elements contained in the propositions and before the evaluation of the proposition in some circumstances.

2. A trouble

In this paper, I will maintain that, contrary to Kaplan's claim, the hypothesis 1) above is the correct one. Of course, this view must account for the fact that demonstratives scope over operators and for the fact that they tend to be evaluated in the utterance context and not with regards to times, places and worlds different from those of the context. In this paragraph, I will argue that there is at least one substantial reason for pursing this alternative. When we substitute a demonstrative with a definite description within a sentence, often the meaning of the sentence does not seem to change radically, as the following examples show:

- (5) a. That man over there is a friend of mine b. The man over there is a friend of mine
- a. That lady with a red hat is Mary's motherb. The lady with a red hat is Mary's mother

As pointed out by Schiffer (1995), proposing two very different semantics for demonstratives and definite descriptions seems to be implausible in light of examples like these. In particular, the view that (5a) and (6a) express object-dependent propositions and (5b) and (6b) object-independent propositions does not seem to be attractive. For instance, if one maintains that definite descriptions load an individual concept into the proposition, whatever mechanism one wishes to suggest in order to complete the descriptive content of the description in (5b) (domain restriction, supplementation of implicit linguistic material, etc.), such a mechanism can be posed again as a solution of the incompleteness of the demonstrative in (5a). In fact, this demonstrative also expresses a descriptive content ("man over there") that is insufficient to pick up a unique referent and must be supplemented contextually so that the reference act suc-

ceeds. This leads to thinking that the demonstratives and definite descriptions in (5) and (6) cannot have a so very different semantics.

3. Salience

In the next paragraphs, I will sketch out a view of demonstratives that is alternative to Kaplan's theory. In particular, I will claim that the main semantic feature of demonstratives is not the direct reference to their designata but the reference to salient objects. It will be argued that salience can account for the fact that the referents of demonstratives are usually found within the utterance context.

However, before doing so, it is necessary to define the concept of *salience*. I call an object *salient* iff it has the following properties⁴:

- (i) the persons taking part in the conversation focus their attention on it;
- (ii) it is part of the mutual knowledge of the participants that they all are focusing their attention on it.

Thus, a salient object "protrudes" from the other objects, which are in the background and receive less attention. Two remarks are in order: first, it is clear that the definition must be indexed to a time t. During a conversation, the participants change the focus of their attention many times. Therefore, it makes sense to speak of salience only at a certain point in the conversation. Second, the concept of salience is a fuzzy concept: an object can be more or less salient since it can receive more or less attention from the participants. For example, if at the time t the conversational participants are addressing their attention to an object a and at a time a0 (where a0) they turn their attention to an object a0 a1 are addressing their attention to an object a2 a3 and at a time a4 a5 a5 they turn their attention to an object a5 a6 a7 are and a8 a9 a9 are addressing their attention to an object a9 and at a time a9 they turn their attention to an object a9 are and a9 are and a9 are and a9 are addressing their attention to an object a9 are and a9 are an attention to an object a9 are and a9 are an attention to an object a9 are attention to an object a9 are attention to an object a9 are at

An object can be salient for two different reasons: either because it is salient by itself or because a speaker makes it salient by means of some act. I call the first case of salience *intrinsic salience*, while the second one is a case of *extrinsic salience*. An object is intrinsically salient at a time *t* if it has some proprieties at the time *t* so that the conversational participants in a conversation are naturally led to focus their attention on it. An object can be intrinsically salient for two different kinds of reasons: natural reasons and cultural reasons. Let's review them in this order. An object stimulating our sensorial system in a massive way is salient for natural reasons: it may be a very loud noise, a sudden flare in a poorly illuminated environment, a very fast object against an immobile background, an intense smell. Objects like these draw the attention of persons immediately. Another reason why an object can be naturally salient is

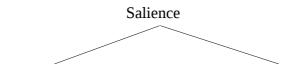
⁴ I follow Mount (2008) here.

its temporal and spatial closeness. In general, the objects that are temporally and spatially close to the conversational participants will be more salient than the distant objects. I call this type of salience *natural* since it is due to instinctual reasons: loud noises, sudden flares, objects moving fast might announce a danger and activate the body's defenses. In the same way, in order to keep their environment under control, human beings (like other animals) focus their attention on what is temporally and spatially close.

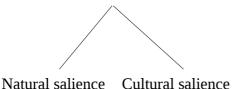
There is another reason why the objects can be intrinsically salient: our cultural habits. If a person walks down the road naked, s/he will attract the attention of the speakers. When people attend a cultural performance such as a movie showing or a theatrical performance, they will usually focus their attention on what is happening on the screen or on the stage rather than on what the ceiling of the theatre looks like or on the shape of the chairs.

The extrinsic salience is not due to the particular features of the object, but to the fact that one speaker draws the attention of the other participants to a particular object. A simple means to perform this change of focus is a deictic gesture. A deictic gesture is a means to focus the attention of the addressee on something to which they did not pay (enough) attention. Of course, there are other ways of doing so and deictic gestures are only one of them. We can also illuminate an object and leave the rest in half-light, indicate an object with a luminous point (for instance that projected by a laser pen) or with another means (for example the mouse arrow on the screen).

We can sum up the content of this paragraph with the help of the following scheme:



Intrinsic salience Extrinsic salience (deictic gestures of the speaker)



4. Demonstratives and salience

As said above, I maintain that the main semantic feature of demonstratives is to denote objects which are salient in the utterance context. According to the view defended here, the difference between a definite description "the F" and a demonstrative "this F" is the following: the definite description refers to the unique F, if it exists. Sometimes the definite description refers to the unique F in the world, but more often the uniqueness is relative to the utterance context. By contrast, the demonstrative "that F" refers to the F that is more salient in the utterance context than the other Fs, if this F exists. So, the demonstrative presupposes the existence of more than one F in the world because the referent is individuated among the other Fs for being more salient than the others. One of consequence of this view is that, if in the utterance context there are many Fs, the definite description will be spurious, while the demonstrative will have a referent, if an F is clearly more salient than the other Fs. On the other hand, if in the utterance context there is a unique nonsalient F, then the definite description will refer to it, while the demonstrative will be spurious. These predictions will be verified in section 5. Before addressing this issue, in this section I will give some examples to show that demonstratives refer to salient objects, whatever the reason for the salience of the referent.

When an object is intrinsically salient for natural reasons, no deictic gesture is needed to denote it by means of a demonstrative. Suppose that two persons hear a very loud noise while speaking to each other. One of them can say to the other one:

(7) What's that noise?

without any deictic gesture. Such a loud noise is intrinsically salient, i.e. both the persons will focus their attention on it and each of them will know that the other one is focusing their attention on it. In the utterance context c, in which the noise arises, it is a salient object. Hence "that noise" will refer in c to the noise the conversational participants are focusing on in c.

Kaplan himself points out that no demonstrative gesture is needed in some cases. He gives this example: while a man is rushing toward the door, someone shouts:

(5) Stop that man

In this case, no special action is required on the speaker's part (Kaplan (1989a), p. 490n). It is now clear why no deictic gesture is needed in such a situation: a man who

is running and moving fast, maybe making some noise, will attract the attention of the conversational participants and will probably be salient in the utterance context.

The cases of objects that are intrinsically salient for cultural reasons deserve analogous remarks. If a speaker points to a group of men, one of whom is naked, and says:

(6) Who's that man?

s/he will probably mean the person more salient than the others for cultural reasons. Similarly, when people attend a cultural performance, such as a movie showing or a theatrical performance, they will usually focus their attention on what is happening on the screen or on the stage. Hence, it is probable that, during the performance, demonstratives will refer to what is happening on the stage or on the screen, since they are the most salient parts of the context in absence of something able to turn their attention to something else. If somebody says during a concert:

(7) This is my favorite

the referent of the demonstrative "this" will be the piece being played at that time.

A further (cultural or natural) reason why an object can be salient is its difference from the other objects of the perceptive context for some very evident property. This property will "highlight" the object and will attract the attention of the conversational participants to it. For instance, in a context in which some people are looking at a number of marbles, all of which are white except one that is black, it is plausible that their attention will be attracted by the marble that stands out for its color. A demonstrative, like "that marble", pointing to the group of the marbles, will be likely interpreted as referring to the most salient marble. On the other hand, if the conversational participants are looking at a group of people, one of which is dressed in an extremely extravagant and peculiar way, it is probable that their attention will be attracted by that person. Accordingly, the demonstrative "that person", pointing to the group of people, will refer to the person who is standing out for cultural reasons.

If the view that indexicals refer to what is most salient is right, deictic gestures receive a different interpretation from the usual one. Deictic gestures are means to turn something which is not (sufficiently) salient to be the referent of a demonstrative into something salient. In fact, a deictic gesture is a means to draw the addressee's attention to an object of the context. The speaker knows that the addressee is focusing her attention on the object being pointed at and this is sufficient to make the object salient. Demonstratives are not used to focus the addressee's attention on an object. On the contrary, they are used to refer to the objects on which the addressees are focusing.

5. Demonstratives and definite descriptions

In this section I will deal with the semantic difference between demonstratives and definite descriptions. As already said, I think that definite descriptions refer to the unique object that satisfies their descriptive content, while demonstratives refer to the most salient object satisfying their descriptive content in the context. A first hint going in this direction is the fact that, while definite descriptions often refer to the unique object in the world having a certain relation to another object, demonstratives cannot refer to such objects:

(8) a. James' father was not thereb. *This father of James was not there

In (11a) the description refers to the unique object in the world which has a certain relationship with James. Now it should be clear why (11b) is awkward: the route of the designator to the referent is based on the fact that a unique object has a certain relationship with James, hence the salience has no role in picking up the referent of the designator. When there is a unique object in the world in the denotation of the matrix, the demonstrative is strained and a definite description must be used because the referent of an occurrence of the demonstrative "that F" must be picked up for being more salient than the other Fs, so that the existence of more than one F in the world is presupposed. (11b) would be acceptable in the very odd circumstance in which James has many fathers, of which one is salient at the time of the utterance. In such a case, salience would be essential in picking up the referent since it would allow to distinguish the referent from James' other fathers⁵.

This allows us to account for the contrast in $(12)^6$:

⁵ An anonymous referee rightly points out that an emphatic use of a demonstrative is possible in an example such as (11b): "Damn! That father of James' was not there!" (see, among others, Acton & Potts 2014 for an analysis of these uses). I do not address emphatic uses in this paper, but, for the record, I believe that salience theory can account for them even better than Acton & Potts' theory. Lakoff (1974) notices that emphatic demonstratives are used as a tool for "achieving camaraderie" (347) and "establishing emotional closeness between speaker and addressee" (351). She claims that these effects must arise from the basic semantics and use conditions of demonstratives. Salience theory implies that, in using demonstratives, the speaker and the addressee are focusing the same object. Therefore, they must have the same object in mind and share the same "experience". This is possible only if they engage the same immediate physical environment or if they have sufficient degree of nontrivial common ground. It is, then, no surprise that demonstratives can use for establishing emotional closeness between speaker and addressee.

⁶ Thank you to Sandro Zucchi for suggesting these examples.

- (9) a. ??This composer of this piece of music must have had some familiarity with Eastern music
 - b. This part of this piece of music reveals that the author must have had some familiarity with Eastern music

Crucial to explain this contrast is the relation expressed by "of" and, in particular, if it is a one-to-one or a one-to-many relationship. Normally, pieces of music have only one author, so the descriptive content "composer of this piece of music" identifies only one object. This renders the definite description "the composer of this piece of music" more appropriate: the salience of the composer plays no role in identifying the reference since the work is already done by the descriptive content. On the other hand, (12b) is perfectly acceptable because a piece of music has many parts, so the referent of "this part of this piece of music" is identified for being the salient part of the piece of music, namely, the part the speakers are listening to. Since both the part of the work of music and the work itself are salient and since salience has a key role in the identification of the referents, a demonstrative containing another demonstrative can be used. To be felicitous, (12a) should be uttered in a context in which the work of music has more than one author and both the work and one author are salient.

Examples of this kind can be multiplied:

(10) a. This page of this book is illegible b. ??This cover of this book is illegible

We can say (12a) because the relationship between the book and its pages is one-to-many, while (12b) is strained because the relationship between a book and its cover is one-to-one.

Definite descriptions containing superlatives deserve analogous remarks:

(11) a. The highest mountain in the world is in the Himalaya chain b. *This highest mountain in the world is in the Himalaya chain

In (14a) the reference mechanism is based on the fact that a unique mountain in the world has the property of the height in a degree which is higher than any other moun-

⁷ If (12a) is uttered while listening a piece of music on the radio and if the work has two authors, then the context fails to provide a referent for the deictic demonstrative, since we lack information to decide which of the two authors the occurrence of the demonstrative "this composer" should refer to. The occurrence of the demonstrative in (12a) suggests that there is more than one author of the piece of music being heard, but the context provides no indication about which author is to be associated to the demonstrative, thus the demonstrative in (12a) fails to denote.

tain. Also in this case salience has no role and this accounts for the incorrectness of (14b).

Provided that only one object satisfies the matrix, definite descriptions can refer to something the speakers are not focusing on at all, while this cannot happen to demonstratives:

- (12) a. [pointing to the corpse of Mr. Smith] Smith's murderer, whoever he is, is mad
 - b. The author of this manuscript is unknown
 - c. *[pointing to the corpse of Mr. Smith] This murderer of Smith is mad
 - d. *This author of this manuscript is unknown

(15 a-b) are possible even when the referents are not minimally focused on by the speakers⁸.

If the referent is the unique object which satisfies a certain descriptive content and it is not salient, the use of a definite description rather than of a demonstrative is mandatory. On the contrary, if the referent is not the unique object satisfying a certain descriptive content but it is salient, a demonstrative must be used. Suppose that in a certain context there are many marbles and that one is more salient than the others for intrinsic or extrinsic reasons (maybe it is the unique marble that jumps and moves, while the others are still, or the speaker is pointing to it):

- (13) a. This marble is my favorite
 - b. ??The marble is my favorite

Since one marble is more salient than the others, the use of (16a) is fair: the demonstrative will refer to the most salient marble in the utterance context. Instead, the use of (16b) is strained because many objects in the utterance context satisfy the descriptive content of the definite description.

⁸ An anonymous referee objects that in the situation of (15a) and (15c) the demonstrative "he" can be used, for instance, by uttering the sentence: "He must be mad", meaning that the murder must be. In fact, also (15c) would improve much if the phrase "of Smith" is dropped. Notice, however, that in these cases there is no unique object that satisfies the descriptive content of the demonstratives. There are many male individuals and there are many murders in the world. Furthermore, I assume that the murder of Smith must be salient in these contexts to use a demonstrative felicitously. For instance, it must be evident that Smith has been murdered and that the conversational participants are focusing their attention on the ways in which he was murdered and on the *modus operandi* of the killer. I believe that only at these conditions (no unique object satisfying the matrix and saliency of the referent) a demonstrative can be used in such contexts. It would be a deferred use of a demonstrative (see footnote 9 below).

The situation described by Kaplan in which many men are present but only one makes himself more salient than the others by running away can be accounted for along the same lines:

(14) a. Stop that man b. ??Stop the man

Since many men satisfying the content of the definite description are present, its use is very odd. On the other hand, since the man is more salient than the others because of his behavior the demonstrative can be used. When the descriptive content of a definite description is satisfied by a number of objects, the addresses look for a context in which only one object satisfies it⁹. If this is impossible, namely, if in every context, the addresses can set there is more than one object satisfying the descriptive content, then the description is awkward. This accounts for the following minimal pair:

(15) a. ??The cat is nicer than the cat b. This cat is nicer than this cat

In order to make (18a) felicitous, one must set two different contexts which contain only one cat each. It should be also clear, without the help of deictic gesture indicating the cats, that the first definite description of (18a) is to be evaluated in one of these two contexts and the second in the other one. This is not easy to do. On the contrary (18b) is felicitous because deictic gestures allow us to change saliency in a very short time: the speaker can indicate a cat while uttering the first demonstrative and then indicate another cat while uttering the second one.

Sometimes both a definite description and a demonstrative seem to be possible in a certain context:

- (16) a. That man over there is a friend of mine b. The man over there is a friend of mine
- (17) a. Give me that sweater b. Give me the sweater

When the descriptive content of the matrix is satisfied by more than one object in the world, the referent can be picked up for being the unique object satisfying the matrix in the context or for being the most salient object in the matrix denotation. If the first strategy is adopted, a definite description will be used, while if the second one is adopted, a demonstrative will be employed. Sometimes, as (19)-(20) show, both

⁹ Cfr. Elbourne (2005), who works out this claim and applies it also to the most disputed cases.

strategies are available: the referent can be both the unique object in the matrix denotation in the context and the most salient object satisfying the matrix of the demonstrative. However, we can put forward this generalization: (i) the easier it is to identify a simple descriptive content satisfied only by the referent, the more probable the use of a definite description becomes. Instead, when such a descriptive content is hard to find, the use of a demonstrative is more probable; (ii) the more the referent is focused on by the speakers, the more probable the use of a demonstrative becomes; the less the referent is focused on, the less probable the use of a demonstrative is.

Let's review these two points in this order.

i) The present account predicts that the more objects of the same class of the referent there are in the context, the more probable the use of a demonstrative rather than of a definite description becomes. Since the referent shares several properties with other objects in the context, a very complex descriptive content satisfied only by the referent would be needed in order to pick it up with a definite description. For instance, suppose one has to refer to a particular desk in a room full of desks. Probably, one would use a demonstrative rather than a definite description to refer to it because a definite description such as "the third desk on the right side of the fifth row" would be too complex. If the desk can be pointed to or made salient in some manner, the use of a demonstrative is more economic. The description would be used only in a situation in which deictic gestures are impossible or too vague.

Instead, when the referent is the unique object of its class within the context, the use of a description is favored. In these cases, a very simple descriptive content satisfied only by the referent is available. For example, consider the sentence "Lock the door!" in a room in which there is only one door.

- ii) The more salient the referent is in the utterance context, the more favored the demonstratives are. The less the referent is focused on by the conversational participants, the more probable the use of a definite description is. Consider the following examples:
 - (18) a. Beware of the dog!b. Beware of this dog!
 - (19) a. Mind the step! b. Mind this step!

Suppose that these warnings are written on the gate of a villa and in the vicinity of a step. According to my view, (21a) and (22a) are better than (21b) and (22b) respectively because the dog and the step are not the focus of the attention of the addressee. If they were, the warnings would be useless. (21a) is felicitous because a dog is within

the utterance context, namely in the neighborhood of the villa. However, this dog is not usually salient, making (21b) odd. Analogous remarks are possible about (22a)-(22b).

These facts can explain why (23a) is more natural than (23b) in a situation in which a group of people is waiting for the train on the platform of a station:

- (20) a. The train is coming
 - b. That train is coming

If the train were already salient, there would be no need to inform the addressee of its arrival because the addressee would already know that.

6. Salience and behavior of demonstratives

Now we can sketch a semantic account of demonstratives that is different from that of Kaplan, showing that it can account for the behavior of demonstratives in the contexts where modal and temporal operators occur. I propose the following:

- (21) A demonstrative *d* uttered in the context *c* and in the word *w* refers to an object *o* iff
 - o satisfies the descriptive content of i
 - There is more than one object in *w* that satisfies the descriptive content of *d*
 - o is more salient in c than any other object in w that satisfies the descriptive content of d^{10}

¹⁰ Speaks (Forthcoming) raises several objections against a salience theory of demonstratives. However, he considers the view that demonstratives refer to the maximal salient object or to the most salient object, but not the view that demonstratives refer to the most salient object that satisfies the descriptive content of the demonstrative. So, many of his counterexamples fail against the present view. One of the counterexamples that survive to the present theory of demonstrative is the so call deferred use of demonstratives (Nunberg 1993): for examples, a speaker utters 'that student' while pointing at the chair of an absent student to refer to the student. I believe, however, that the salience theory has the resources to account for deferred uses of demonstratives if we grant that certain relations are so close as to make an object linked to the demonstrated object salient. Salience can be transferred if the conversational participants, seeing an object, immediately think of another object linked to the first. We can imagine that in these cases there is a sort of repairing procedure: since the most salient object in the context does not satisfy the descriptive content of the demonstrative, it cannot be the referent. However, the most salient object makes the conversational participants think of another object which satisfies this descriptive content. As they all think about it and every one of them is aware that the others are doing the same thing, the object is salient. Since this object is salient and satisfies the descriptive content of the demonstrative, it is the referent, if there are no objects of the same type that are more salient in the context.

(24) is still neutral about the *status* of the descriptive content of demonstratives and about the sort of contribution the demonstratives give to the propositions. However, on the basis of (24) we can speculate about the answers to these two questions especially in relation to the behavior of demonstratives described in section 1.

An exophoric demonstrative refers to an object salient in the utterance context c^{11} . I believe that an object can rarely be salient in the extralinguistic context c if it is no part of c. This follows from the definition of salience I have already given in section 3. I have argued there that an object is salient in *c* if every person taking part in the conversation focuses her attention on it and they believe that the other participants are doing the same thing. During a conversation, a person may think of an object that is not part of *c* and focus on it. By pure and exceptional change, every other participant may do the same so that everybody may think about the same thing at the same moment. But, of course, the conversational participants cannot be aware of this. In order that every conversational participant believes that the others are thinking about the same thing she thinks about, there must exist something that makes the participants aware of this. This knowledge can be obtained only on the basis of the elements I have listed above: (i) the object o is salient in c for intrinsic reasons; (ii) o is salient because a speaker has made it salient; (iii) o is salient because it has been mentioned in the conversation. Disregarding (iii)12, I maintain that conditions (i) and (ii) are almost always fulfilled only when o is part of c. As to condition (ii), in the overwhelming majority of cases a speaker can draw the attention of the others to something by indicating it only if it is in c. If it were not, o would be out of the range of the normal tools available to the speaker for drawing the attention to something. In order to make it salient, the speaker should turn to other means, such as mentioning it (but then we would turn to case (iii)). As far as (i) is concerned, in most cases an object is intrinsically salient in the context *c* only if it is in *c*; *o* can draw the attention of the speakers only if it is within the range of their sense organs or at least its manifestations are: hence it must usually lie in c or at least its manifestations must 13 .

Accordingly, the objects that are salient for reasons (i) and (ii) are usually within the extralinguistic context, whereas the objects that are salient for reason (iii) need not be: they must be mentioned in the linguistic context, but they need not be within the extralinguistic context. Since the context is a part of the utterance world, being within

¹¹ Here I will presuppose that the utterance context is a part of the utterance world. By contrast, Kaplan suggests that the utterance world is one of the features of the utterance context (cfr. Kaplan (1989a), pp. 594-6). Nothing of what I will say hinges on this.

¹² I believe that my semantics can treat also anaphoric demonstratives and pronouns, but I will leave this extension for another occasion.

¹³ When I speak of the "manifestations of an object" I think of cases such as the following: suppose that some people are watching the effects of a bombardment on civilians, for instance on a village, and that one of them says to the others: "this war is cruel". The war is no part of the context in a strict sense but its manifestations and outcomes are visible in the perceptive context of those people.

the utterance context means being within the utterance world: the objects salient for reasons (i) and (ii) are *usually* part of the utterance world¹⁴.

This suffices to account for the behavior of demonstratives in modal and temporal contexts. If the referents of demonstratives need to be in the utterance world, they cannot take narrow scope with respect to any modal operator: if they took narrow scope, their referents would be part of worlds different from the utterance world. Since demonstratives usually refer to something being within the utterance world, no modal operator can operate on their descriptive content in that this would imply that the descriptive content is evaluated in a world different from the utterance world. Temporal operators deserve analogous remarks. Since the referents of exophoric demonstratives are usually within the utterance context, they must be located at the time of the context. Therefore, demonstratives cannot take narrow scope with respect to any temporal operator: if they took narrow scope, their referents would be located at times different from the utterance time. Since demonstratives usually refer to something located at time utterance time, no temporal operator can operate on their descriptive content in that this would imply that the descriptive content is evaluated at a time different from the utterance time.

We have found why the descriptive content of demonstratives is usually evaluated at the utterance world and at the utterance time. There is no reason to throw it out of the proposition. Kaplan thinks the character is no part of the proposition because if it were, the modal and temporal operators should be able to operate on it. Since they cannot, Kaplan concludes that the character is outside the proposition. But I have argued that there is a motive for the behavior of demonstratives in modal and temporal context: they refer to salient objects. A salient object is almost always part of the context. As far as exophoric demonstratives are concerned, this means that in most cases the referent needs to be part of the utterance world and located at the utterance time. But in turn this means that demonstratives cannot usually take narrow scope with respect to the modal and temporal operators occurring in the sentence.

Definite descriptions need not refer to something salient in the utterance context. So, they need not refer to objects that are part of the utterance context: they can refer to objects which are in worlds different from the utterance world or are located at times different from the utterance time. So, they can take scope under operators. This different behavior is not caused by the fact that demonstratives are direct reference devices, while definite descriptions are not, but by the fact that demonstratives refer to salient objects while definite descriptions need not.

There is a direct way to compare Kaplan's view and mine. There are some rare cases in which a salient object is no part of the utterance context. In these cases, my approach predicts that a demonstrative that refer to such an object can take narrow

¹⁴ Otherwise, if the utterance world is a feature of the context, being within the context c means being within the world w which is a feature of c.

scope with respect to the modal and temporal operators because the reason why demonstratives often take wide scope is removed. On the contrary, the direct reference view predicts that the demonstrative will not take part in scope relations because its descriptive content (its character) is not loaded into the proposition.

Often, we can make something salient that is not part of the context by using technological equipment: imagine a circumstance in which a home movie shot in 1989 is projected in Ann's flat. On the screen, there is the imagine of a building that was knocked down in 2000. Pointing to the screen Ann says to her guests:

(22) In 1989 this building was beautiful but now it does not exist any more

The referent of the demonstrative is not part of the context and it is a building at a time which is different from that of the context. Therefore, the demonstrative takes narrow scope with respect to the temporal operator "in 1989". Nevertheless, the demonstrative is perfectly fair here. This is because the movie can make the building salient even if it is outside the utterance context.

The referent of an exophoric demonstrative can not only be located at a time which is different from the utterance time, but also in a different world. Suppose some people go to the cinema to see a Walt Disney movie. In the movie, there is a talking cat. One of them says to the others:

(23) This cat could not exist in the actual world.

The demonstrative refers to a fictional object which not only is not part of the utterance context but which is not part of the utterance world either. Therefore, the demonstrative takes narrow scope with respect to the modal. However, again, since the movie can make this object salient, the speaker can safely use a demonstrative to refer to it¹⁵.

¹⁵ An anonymous referee objects that these examples might be construed as cases of deferred reference. Accordingly, they require only that their indexes (in this case, the pictures or the images) are part of the context of utterance to retain wide scope over the operators. I agree that it is possible to interpret these and other similar cases (for instance, pointing to a map and uttering: "this place") as deferred uses. However, first of all, the view suggested by the referee would be a radical departure from Kaplan's theory and from the received view about scope. It is usually assumed that a designator takes wide scope with respect to a modal operator iff its referent must be recovered within the evaluation world (and not in other worlds) and must satisfy its descriptive content, if any, at the utterance world (and not at other worlds). Requiring just that the index must be recovered within the utterance world and allowing the referent to be situated in other worlds and to satisfy the descriptive content of the designator there would mean to embrace a radical different theory of scope. Secondly, I do not deal with anaphoric

7. Conclusion

In this paper, I defend a view that maintains that the main semantic feature of demonstratives is to refer to the most salient object satisfying their descriptive content. This feature accounts for the differences between demonstratives and definite descriptions and their dissimilar behavior in modal and temporal contexts.

If my view is on the right track, there is no reason to expel the descriptive content of demonstratives from propositions. The descriptive content of demonstratives enter into propositions, as does that of definite descriptions. Therefore, the main objection to a descriptive and non-direct approach to the semantics of demonstratives is removed. It is not within the scope of this paper to develop this approach in details. My aim was more modest: to show that such an approach is possible. I believe that, once the requisite of salience is taken in account, there is no reason to reject some version of this approach.

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uses of demonstratives in this paper, but I believe that there are clear examples in which anaphoric demonstratives take narrow scope with respect to an operator. For instance, "There could have been a lion over there. This lion could have attacked you". In this sentence, "this lion" takes narrow scope with respect to the modal and it has no index in the actual world.

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