

TEMPORAL INDEXICALS AND TEMPORAL TERMS

In this paper I shall discuss temporal indexicals, i.e., expressions of the form ‘today’, ‘this week’, ‘last Monday’, etc. and temporal terms such as ‘Monday’, ‘week’, ‘spring’, ‘February’, etc. After showing (Section 1) how indexicals, unlike other terms, rest on perspectival identification, I propose (Section 2) some features distinguishing pure indexicals (e.g., ‘now’, ‘today’, ‘here, ...’) from demonstratives (e.g., ‘this’, ‘she’, ‘that’, ...). I shall then be in the position to argue (Section 3) in favor of three main theses:

- temporal indexicals are pure indexicals,
- they must be explained in terms of ‘now’, i.e., the time at which they are uttered and
- temporal terms are count nouns.

As such they can be used as sortal predicates to form either: (a) compound indexicals of the form ‘last week’, ‘next year’, ‘this summer, ... or (b) quantified expressions of the form ‘some days’, ‘every Monday’, ‘every year’, ‘all Marches’ ... The former are pure indexicals, while the latter are not singular terms but quantified ones. I shall end (Section 4) in showing how all attempts to reduce temporal indexicals to definite descriptions fail.

1. THE BACKGROUND: INDEXICAL IDENTIFICATION

It is a platitude to claim that indexical expressions play a crucial role in the way humans interact with the external world. Since one of the fundamental types of experience is that of cognizing the world, indexical expressions are the basic mechanism enabling us to pick up and think about the objects and individuals inhabiting our surroundings:

Indexical reference is personal, ephemeral, confrontational, and executive. Hence it is not reducible to nonindexical reference to what is not confronted. Conversely, nonindexical reference is not reducible to indexical reference. (Castañeda 1989, p. 70)

Following these considerations we can recognize at least two radically distinct ways one can single out an object of discourse.



Firstly, one can use an expression like a proper name. This use exploits a linguistic resource, for a proper name comes to the act of utterance equipped with its semantic value.¹ Actually, one does not change the reference of a proper name, say 'Plato', when one uses it. Since a name is conventionally linked with its bearer one is not responsible for bridging the gap between the former and the latter, one is merely exploiting a preexisting convention. When one uses proper names, mass terms ('water', 'gold', 'gas'...), terms for species ('tiger', 'frog', 'azalea', ...) and the like, one is simply responsible for using the name/term with its conventional meaning. One is not liable for the latter.

On the other hand, when one uses an indexical expression the story is rather different. In that case one is liable for bridging the gap between the indexical and the object singled out by this use. The link between the former and the latter is *created* by the very use of the indexical, by the production of the utterance. Thus:

What is characteristic of demonstratives is not a special mode of reference but a special mode of identification. (Hintikka 1998, 204)

For this reason indexicals can also be characterized as *egocentric particulars*² inasmuch as they are intrinsically linked with the agent and her spatio-temporal location. In other words, indexicals are used from a point of view. When one makes an assertion, a request, a question, etc. using an indexical one is (usually) anchored to the place and time one produces one's utterance.³ To put it in a nutshell, since an utterance is an action, i.e., an event produced by an agent, an utterance is strictly tied to an agent, a time and a place. Hence, the relevant contextual parameters needed to fix an indexical reference are *the agent* (usually the speaker or writer), *the time* and *the place* of the utterance.

To put it slightly differently, indexicals, unlike proper names and other terms, are intrinsically perspectival, i.e., they are tied to an agent's (egocentric) setting. Actually, when one, Jane to give her a name, utters the first person pronoun 'I', she refers to herself, while when Joe uses this pronoun he refers to himself. When addressing you, I may use 'you', while you cannot usually refer to yourself using this pronoun. If Jane utters 'this woman', she refers to the woman in front of her, while if you are not in Jane's vicinity you cannot refer to the same woman using the same expression. If tomorrow we would like to refer to today, we would probably use 'yesterday'. From the audience's viewpoint the understanding of an indexical requires the grasp of the context in which it is uttered. One does not understand a use of 'I', for instance, if one does not grasp the contextual parameter, in that case, the agent. On the other hand, one can understand a proper name, say 'Plato', even if one does not know when or by who

it has been uttered and/or written. If one reads a piece of graffiti saying “Plato is a Greek philosopher” one may understand what is said even if one does not know when it has been produced or by who, while if one reads a piece of graffiti stating “I was here yesterday” one does not understand what is said inasmuch as one does not grasp the contextual parameters. Without the latter indexicals are silent. To capture this difference one can adopt Hintikka’s (1998) distinction between public identification and perspectival identification:

In perspectival identification, we use an agent’s first-hand cognitive relations to persons, objects, places, etc. as the identificatory framework. (Hintikka 1998, 205)

To stress the difference between public and perspectival identification Hintikka invites us to consider the following scenario. In front of the Bodleian Library a tourist asks “What building is that?” while another tourist asks “Where is the Bodleian Library?”. In both cases one can answer “That building is the Bodleian Library”. The very same answer carries clearly different information, for:

The difference between the two tourists is that the latter starts from a publicly identified object (the world-renowned Library) and tries to find a slot for it among his visual objects, that is, among his visual identified objects. The former takes a visual object (“that building”) and tries to place it among his publicly identified objects. (Hintikka 1998, 221)

What is interesting about indexical expressions is their context sensitivity, *viz.*, the fact that their reference depends on the context in which they are used. For indexicals direct us to some aspect of context.⁴ To capture this feature Kaplan (1977) proposes the now popular content/character distinction, roughly the distinction between referent and linguistic meaning.⁵ Character is represented by a function from context to content. The character of ‘I’, is thus represented by a function of the form “The utterer of this utterance” which takes as argument the context and gives as value the referent, the speaker. The character of ‘today’ is represented by a function like “The day of this utterance” which takes as argument the context and gives as value the relevant day, etc. The character of ‘now’ is represented by a function like “The time of this utterance”, and so on. The way I understand Kaplan’s notion of character is to consider it as representing a rule a speaker exploits in fixing the reference of the indexical she uses. Actually, there is a *rule* each competent speaker applies when using the first person pronoun. If one looks into the dictionary one can read that ‘I’ is “a pronoun used by the speaker or writer referring to himself or herself”. This is all one needs to know. Sure, to be a competent speaker one does not need to be able to spell out the rule in the same way that the dictionary or the semanticist does. As Wittgenstein would say, one

manifests one's competence with the rule in following it. In our particular case one manifests one's competence with the relevant rule in using 'I' in an appropriate way. This way of understanding Kaplanian characters stresses the fact that indexicals are intrinsically perspectival and rely on perspectival identification.

With this framework in place I now turn to discuss the distinction between pure indexicals and demonstratives.

2. DEMONSTRATIVES AND PURE INDEXICALS

It is often the case that the linguistic meaning of expressions like 'this', 'that', 'she', etc., together with context (agent, time and place), is not enough to select a referent. These expressions are often accompanied by a pointing gesture or demonstration and the referent will be what the demonstration demonstrates. Kaplan (1977) distinguishes between *pure indexicals* ('I', 'now', 'today', ...) and *demonstratives* ('this', 'she', ...). The former, unlike the latter, do not need a demonstration to secure the reference.⁶ In short, while the reference of a pure indexical is secured by the contextual parameters such as the agent, time and place of the utterance, the reference of a demonstrative is fixed by these parameters plus something else, such as a pointing gesture, ostension or demonstration. We can thus propose the following characteristic distinguishing pure indexicals from demonstratives:⁷

- C1. The use of a pure indexical, unlike the use of a demonstrative, never requires a pointing gesture to fix the reference.

Another way to understand the distinction between pure indexicals and demonstratives is to argue that the latter, unlike pure indexicals, are perception-based.⁸ When one says 'I', 'today', etc., one does not have to perceive oneself, the relevant day, etc. to be able to use and understand these expressions competently. To use and understand 'this', 'she', etc. competently, one often needs to perceive the referent or demonstratum.⁹ In other words, while on the one hand the capacity one has to recognize the referent rests on the perception of the referent, on the other hand it merely rests on the fact that the speaker/thinker occupies a given perceptual field, i.e., that she is egocentrically placed and, thus, has the faculty or potential of acting in a given place. As Evans (1982) aptly points out, by the simple fact of using a so-called pure indexical one is disposed to gather information from the relevant referent, be it oneself, a time or a place. In short, to pass an indexical message we can either use an indexical expression and

draw our audience's attention to the relevant individual or, if the referent is not in our perceptual field, we need to use another referential tool such as, for instance, a proper name. In short, from the speaker or thinker's point of view, perspectival identification can rest on perception or not. C2 should capture this difference.

- C2. The use of a pure indexical, unlike the use of a demonstrative, is not perception-based.

Moreover, a demonstrative, unlike a pure indexical, can be a vacuous term. 'Today', 'I', etc. never miss the referent. Even if I do not know whether today is Monday or Tuesday and I am amnesic or believe that I am Russell and that today is Wednesday, if, on Friday December 22, 2000 I say "Today I am tired", I refer to the relevant day (Friday December 22, 2000) and myself. I do not refer to Russell and Wednesday. By contrast, if hallucinating, one says, "She is funny", or gesturing behind oneself one says "This car is green" when there is nothing, 'she' and 'this car' are vacuous. It could be objected that 'today' can be a vacuous term. For suppose that my utterance "Today is F" is uttered exactly at midnight. Since an utterance takes some time interval to perform, my uttering of 'today' can start before midnight and finish after midnight. In this case 'today' seems to be empty or, at best, a vague term. Notice, however, that the reference of 'today' is fixed according to the context, day, in which it is uttered. If we fix the context, the day, we fix the reference. The linguistic meaning of 'today' cannot take two contexts, two days. As such 'today' cannot be a vacuous term. In short, in this case 'today' refers either to the day before midnight, say Monday, or the day after midnight, say Tuesday. Since the linguistic meaning of 'today' (i.e., the day of this utterance) *qua* function can have only one day as output, it takes either Monday or Tuesday. As such, it seems that the linguistic meaning is underdetermined. A way out of this problem would be to argue that the relevant context is either the time the uttering of 'today' begins (so 'today' refers to Monday) or the time it finishes (so 'today' refers to Tuesday). If the relevant utterance is "Today I visited London" or "Today I've been busy", the context is the time the utterance starts, while if the relevant utterance is "Today I'll be visiting London" or "Today I'll be meeting Jon" the context is likely to be the time the utterance finishes. The whole utterance allows us to fix the relevant context, day. Hence, the linguistic meaning of 'today' is not, at least in these cases, underdetermined. It is left to the reader whether we can find cases where the utterance does not allow us to determine the relevant context. In the case of a demonstrative, on the other hand, we can fix the

context and, yet, the demonstrative can be vacuous if it is, for instance, based on an hallucination.¹⁰ So:

- C3. Pure indexicals, unlike demonstratives, are never vacuous terms.¹¹

3. TEMPORAL INDEXICALS *qua* PURE INDEXICALS AND TEMPORAL TERMS *qua* COUNT NOUNS

If we consider temporal indexicals we can easily see that they qualify as pure indexicals for they satisfy the distinctive criteria C1–C3. Their linguistic meaning (or character) can be, roughly, cashed out as follows.

- Now*: “the time of this utterance”
- Today*: “the day of this utterance”
- Yesterday*: “the day *before* this utterance”
- Tomorrow*: “the day *after* this utterance”
- This year*: “the year of this utterance”
- Next year*: “the year *after* this utterance”
- Last year*: “the year *before* this utterance”
- This week*: “the week of this utterance”
- Next week*: “the week *after* this utterance”
- Last week*: “the week *before* this utterance”
- This Monday*: “the Monday of the week of this utterance^{12,13}”
- Next Monday*: “the first Monday *after* this utterance”
- Last Monday*: “the first Monday *before* this utterance”

Before going further, though, two clarifications are needed.

First, an indexical like ‘this year’ looks like a complex demonstrative. What is the difference, though, between ‘this book’ and ‘this year’? The latter, unlike the former, is coupled with a temporal expression and, when so coupled, it becomes a pure indexical satisfying criteria C1–C3.

Secondly, ‘Monday’ looks like a proper name. Like a proper name, say ‘Aristotle’ or ‘Paris’ it starts with a capital letter. More importantly, though, ‘Monday’ like ‘Aristotle’: (i) may have different referents and (ii) can be used in a predicative way (e.g., “There are four Mondays in a month”, “There are four *Davids* in this room”). Feature (i) matches the thought that temporal terms are indexicals, for they switch referent according to the context in which they are used. For this very reason some people (e.g., Recanati, 1993, Voltolini, 1995) have claimed that proper names are indexicals as well. Feature (ii), on the other hand, matches the opposite thought

that ‘Monday’ is a count noun (e.g., “There are four apples on the table”). For this very reason some people (e.g., Castañeda, 1989) have claimed that proper names are count nouns as well. As far as I am concerned, I am not fully convinced by Castañeda’s, Recanati’s and Voltolini’s arguments: I believe that proper names are neither count nouns nor indexicals. I do not have space, though, to address this question. Suffices to say that if we recognize the dual aspect of identification that I have been discussing and defending in section 1 we commit ourselves with the view that indexical and proper names are distinct tools of reference and identification and, more importantly, that they do not reduce to one another. For argument’s sake let us assume that we have three kinds of terms: proper names, indexicals and count nouns and that they do not reduce to each other.¹⁴ My concern here is to see whether temporal terms are count nouns, indexicals or proper names. We are thus left with a trilemma: temporal terms are either indexicals, proper names, or count nouns.

In what follows I shall argue that a temporal expression looks more like a count noun such as ‘man’, ‘lemon’ and ‘car’, than a proper name, i.e., that a temporal term belongs to the category of count nouns. To stress this fact, consider:

- (1) Teaching starts on Monday.

In this case ‘Monday’ seems to be short for ‘next Monday’ and (1) ought to be understood as:

- (1a) Teaching starts next Monday.¹⁵

There are some cases, though, when a temporal expression is not coupled with an indexical to form a pure indexical. A temporal term like ‘Monday’ can be coupled with an indefinite article to make an indefinite reference:

- (2) The teaching starts on a Monday.

(2) looks like (3) and (4):

- (3) I met a man.
 (4) I met a Paul.

But (4), unlike (3), looks like:

- (5) There are several Pauls in England.

As such (4) involves an implicit quotation and is short for:

(4a) I met someone named 'Paul'

just as (5) is short for:

(5a) There are several people named 'Paul' in England.

On the other hand, (2), like (3), does not seem to involve implicit quotations. If so, 'Monday' works more like 'man' than like a proper name. As my intuition goes, (2) should be understood as:

(2a) Teaching starts on one of the Mondays.¹⁶

If (2) were understood as:

(2b) Teaching starts on one of the days of the week called 'Monday'

something would be lost. Sure, if teaching starts on Monday it starts on the day called 'Monday'. But when one understands (2) one does not understand it as (2b). If one understands it as (2b) one may have no clue on which day of the week teaching starts. To know that teaching starts on a Monday is to know that it starts one of the days following Sunday and preceding Tuesday, while to know that teaching starts one of the days called 'Monday' does not entail the knowledge that teaching starts one of the days following Sunday. In short, to know that teaching starts on a Monday entails the knowledge of the cycle of the days, while to know that teaching starts one of the days called 'Monday' does not entail the knowledge of the cycle of the days and, thus, does not entail the mastery of the concept *Monday*.

This difference goes hand in hand with another difference distinguishing proper names and temporal terms. The latter, unlike the former, occur in dictionaries. To be sure, some proper names do occur in the dictionary. But you need to be rather famous to get your name into the dictionary. The same for a place: it has to be rather famous to get the same honor. So one can argue that a speaker who does not know that Monday is the day following Sunday, i.e., one who does not know the order of the days in a week, as one who does not know that January is the month following December and preceding February, is not fully competent in English. In other words, one does not master the concept *Monday* if one does not know the order of the days and, thus, one does not also master the concept *Tuesday*, *Wednesday*, etc. On the other hand, we cannot say that one who does not know the meanings of the thousands designated by a given proper

name, say 'Mary Smith', is linguistically incompetent. In short, one can understand a proper name in isolation while one cannot so understand a temporal term. Let us call this the *understanding-competence test*.

As I have been arguing, temporal terms like 'Monday', 'January', etc., unlike proper names, look and behave like count nouns. In favor of this thesis we can also stress that proper names and temporal terms behave in a rather different ways when embedded in attitude ascriptions. We can call this the *embedding-substitution test*. I shall be arguing that temporal terms, unlike proper names, (i) can be substituted *salva veritate* in attitude ascriptions and that (ii) in attitude ascription they behave like count nouns. To begin with, consider the following inferences:

- (1a) Lois wishes to kiss Superman.
- (2a) Superman is Clark Kent.

So:

- (3a) Lois wishes to kiss Clark Kent.

Let us assume, following the Fregean intuition, that this inference is not valid. Actually, as the story goes, Lois wishes to kiss Superman and does not wish to kiss Clark Kent. If in our inference we substitute 'Clark Kent' for 'Superman' we cannot deal with Lois's emotional attitude. To deal with the latter we ought to stress that Lois wishes to kiss Clark Kent *qua* Superman while she does not wish to kiss him *qua* Clark Kent, for she is unaware of the fact that Clark Kent is Superman.¹⁷ A similar reasoning cannot be applied when dealing with temporal terms:

- (1b) Lois wishes to visit us on a Monday.
- (2b) Monday is the day after Sunday.

So:

- (3b) Lois wishes to visit us on the day after a Sunday.

This inference, unlike the previous, is valid even in its *de dicto* reading. For, as I have been arguing, Lois masters the concept *Monday* if she knows the cycle of the days and, thus, if she knows that Monday is the day after Sunday. Hence, if with (1b) we are assuming that Lois masters the concept *Monday*, we are also assuming that she knows (2b) and, therefore, we can substitute 'Monday' with 'the day after Sunday'. If we are reluctant in assuming that with (1b) we are attributing to Lois the mastery of the concept

Monday, let us substitute (1b) with “Lois, a perfectly competent speaker of English, wishes to visit us on a *Monday*”. In this case the attribution to Lois of the mastery of the concept *Monday* is explicitly stated by the clause “a perfectly competent speaker of English”. To stress the fact that temporal terms behave like count nouns, let us consider the following inference:

- (1c) Lois wishes to meet a bachelor.¹⁸
- (2c) A bachelor is an unmarried man.

So:

- (3c) Lois wishes to meet an unmarried man.

Like the previous inference this one is valid. For, if Lois has mastered the concept *bachelor*, she knows (2c), i.e., that a bachelor is an unmarried man. So we can substitute ‘unmarried man’ for ‘bachelor’. Once again, if we are reluctant to assume that with (1c) we are attributing to Lois the mastery of the concept *bachelor*, we can replace it with “Lois, a perfectly competent speaker of English, wishes to meet a bachelor”. It is worth noticing, though, that an inference like:

- (1d) Lois wishes to meet an unmarried man.
- (2d) An unmarried man is a bachelor.

So:

- (3d) Lois wishes to meet a bachelor

does not appear to be valid, for Lois may master the concepts *unmarried* and *man* without mastering the concept *bachelor*. Consider the following scenario. Jon is told to separate the female foxes and the male ones guarded in the Zoo. Jon can successfully fulfil the action he has been told to do, for he masters the concepts *female*, *male* and *fox*. If Jon is told to separate the vixens and the non-vixens he may be unable to act, for he may not have mastered the concept *vixen*, i.e., he does not know that a vixen is a female fox. This suggests that there is an asymmetry between ‘bachelor’ and ‘vixen’, on the one hand, and ‘unmarried man’ and ‘female fox’, on the other. For one who understands the words ‘bachelor’ and ‘vixen’ also understands the words ‘unmarried man’ and ‘female fox’, while one who understands the latter may not understand the former. In short, one who understands a word also understands the definition of this word, while one who understands a given definition may not understand the word this definition stands for.

The embedding substitution test may not furnish a knock down argument in favor of the fact that temporal terms like ‘Monday’ are better understood as count nouns than proper names, for it rests on the assumption that synonymous expressions can be substituted *salva veritate* in attitude ascriptions. To be more accurate the assumption I have been endorsing entails that a word can be substituted by its definition while a definition cannot be substituted by the word it defines,¹⁹ an assumption that not all are willing to accept.²⁰ To please those who do not accept this assumption, we can take my argument to be a conditional one, i.e., *if* synonymous expressions can be substituted *salva veritate* in attitude ascriptions, *then* temporal terms embedded within attitude ascriptions behave like count nouns.²¹ Notice, however, that if, as I have been suggesting, we assume that Lois is perfectly competent with English, then we are assuming that she is aware that bachelors are unmarried men and vixens are female foxes. On the other hand, being perfectly competent with English does not entail that one knows that Superman is Clark Kent, that Bob Dylan is Robert Zimmerman or that Tullius is Cicero. And this assumption is all we need to show that temporal terms in attitude ascriptions behave like count nouns and not like proper names.

There is another difference between a proper name such as ‘Clark Kent’ or ‘Superman’ and temporal words such as ‘Monday’, ‘April, . . .’: it is unusual for a given person to bear two distinct names. On the other hand, ‘Monday’ and ‘The day after Sunday’ are synonymous. So a person named ‘Clark Kent’ may not be the same as the one named ‘Superman’, while the day called ‘Monday’ ought to be the same as the day following the day called ‘Sunday’.

Consider now:

- (6) Shops closed on Sunday.

In that case (6) is elliptical for:

- (6a) Shops are closed every Sunday.

‘Sunday’ is coupled with a quantifier. As such it is not a singular term. Actually, temporal terms, like count nouns, can be coupled with quantifiers and become quantified expressions:

- (7) A few years ago Jon married Pauline.
 (8) Within a few weeks we will meet again.
 (9) In a few days Pauline will give us her paper.
 (10) Every Monday Paul has a hangover.

A further, related, consideration in favor of treating temporal terms such as ‘Monday’ as count nouns comes from the fact that elements of different syntactic categories, unlike elements of the same category, cannot be conjoined when appearing within the scope of a quantifier. To stress this fact consider (11) and (12):

- (11) *All the Pauls and bachelors are males.
 (12) All Mondays and vixens are unfriendly.

While (11) is ungrammatical, (12), even if awkward, is grammatical. The only way to make sense out of (11) would be to interpret it as:

- (11a) All the people named/called/... ‘Paul’ are males.

We would then bring in quotation. Hence (11) undergoes the same analysis as (4) and (5). This, once again, proves that count nouns and temporal terms can be treated on a par, while proper names belong to a different syntactic category.

Summing up: there is a difference between pure (temporal) indexicals like ‘today’, ‘now’, ‘tomorrow’, ... and temporal terms such as ‘Monday’, ‘week’, ‘year’, etc. The latter, unlike the former, and like count nouns, can behave as temporal sortals becoming pure (temporal) indexicals when coupled with a prefix such as ‘this’, ‘next’, ‘last’, etc. or quantified terms when coupled with a quantifier.

Moreover, temporal terms such as ‘Monday’, ‘Christmas’, ‘spring’, etc. can be used in dates such as: ‘Monday, February 2, 1998’, ‘On Christmas Day, 1838’. In these cases temporal terms contribute to the building of eternal sentences, i.e., sentences which do not change reference with the change of context. On the one hand, dates seem to work like compound proper names referring to the same time regardless of the context in which they are uttered. Like proper names, dates contribute the referent, the relevant time, to what is said, i.e., the proposition expressed. On the other hand, dates seem to work like definite descriptions in as much as they describe the referent. As such, they contribute a descriptive mode of presentation of the referent, i.e., a description the referent ought to satisfy to be the designatum of the date.

4. TEMPORAL INDEXICALS *qua* SINGULAR TERMS

A question remains to be answered: why are expressions like ‘this Monday’, ‘next week’ and the like pure indexicals and not disguised definite descriptions? After all ‘next president’ is considered to be a definite

description. Sure an incomplete description, for there are several presidents around the world, not to mention the universe. In France we are probably implicitly referring to France and the description goes proxy for 'next president of France', while in the USA it goes proxy for 'next president of the USA'.

There are two ways one can understand incomplete descriptions: either one follows the Russellian tradition and considers them general terms *or* one follows Russell's critics (the main exponents being Strawson and Donnellan) and tends to consider them singular terms working like complex indexical expressions.²² If one follows the first horn of the dilemma one is likely to consider incomplete descriptions to be quantified expressions ranging over restricted domain of discourse, while if one follows the second horn of the dilemma one is likely to consider the definite article 'the' of an incomplete description, say 'the *G*', to work more or less like a demonstrative like 'that' in 'that *G*'.

Without entering the details of this complex debate I would like to stress that if one embraces the thesis that incomplete descriptions are singular terms, then, as we shall soon see, I have no objection to consider an expression like 'next Monday' to be an incomplete description of the sort '*the* next/first Monday following today', for the latter will be analyzed/explained using the pure indexical 'today'. On the other hand, if one considers incomplete descriptions to be general, quantified, terms, then I do believe that temporal terms like 'next Monday' are not disguised descriptions. To the defense of this position I now turn. The basic question is: could 'Monday' be understood as an incomplete description, and 'next Monday' as a description of the form '*the* next/first Monday following today' or '*the* first Monday after this utterance'?

This whole issue turns on the way one understands incomplete descriptions. In particular on the question: How could we understand incomplete descriptions if they are not singular terms? As far as I can see we have two possibilities, for context can come into the scene either in completing the description or in restricting the domain of discourse. In the first case an incomplete description would be elliptical for a complete definite description ranging over the whole universe, while in the second case the description would range over a restricted or selected domain. It goes without saying, though, that an incomplete description does not necessarily have to be made into an eternal expression before being understood, for it can be completed by indexical expressions. Whether one embraces the first horn of the dilemma and takes incomplete descriptions to be elliptical of complete expressions (either indexical descriptions or eternal descriptions) *or* one takes them to range over restricted domains of discourse, an incom-

plete description, unlike an indexical expression, does not direct us to some aspect of context and the latter is not part of what is said. Actually, whether one follows the former or the latter proposal one commits oneself to the thought that before an incomplete description gets to work and searches for its referent, i.e., the object satisfying the description's descriptive content, it ought either to be completed or the domain of discourse must be specified.

If what I said comes close to being the right picture, then a definite description is not an indexical having a meaning that directs us to certain aspects of context. In other words, in claiming that the meaning of a definite description cannot be equated to the meaning of an indexical, i.e., to a function taking as argument the context and giving as value the referent, I simply mean that such a meaning does not take an aspect of context into what is said. The meaning of an indexical, on the other hand, takes part of the context into what is said. As we saw (Section 1), indexical identification is perspectival.²³ It is for this very reason that an expression like 'this Monday' cannot be equated with an incomplete description understood as a quantified expression. The latter does not involve perspectival identification but public identification. If one understands incomplete descriptions to be short or elliptical for indexical descriptions of the sort 'the person close to *that woman*' or 'the pen on *my left* under *this table*', then the meaning of the description is compound. If one favors this strategy and takes an expression like 'next Monday' to be an incomplete description which will be completed by an indexical expression, then, as I have been anticipating, I have no principled objection. After all, the meaning of an indexical is descriptive. To stress this fact one can focus on the truism that demonstratives like 'this' and 'that' are usually coupled with sortal predicates to form complex demonstratives of the sort 'this *book*', 'that *water*', Sortal predicates can be considered to be *universe narrower* which, coupled with other contextual clues, help in fixing the reference. If, pointing to a bottle, one says "This liquid is green", the sortal 'liquid' helps fix the liquid and not the bottle as the referent. One could argue that this aspect concerning indexical expressions makes them similar to descriptions insofar as they describe the referent. That is to say, the referent picked out by an indexical has to satisfy certain constraints just as the referent of a description must satisfy its descriptive component. Unlike descriptions, though, indexicals are singular terms, for their linguistic meaning is not part of what is said. With a sentence like "*The Queen of England is visiting France*", one says that whoever happens to be Queen of England is visiting France which, as we saw, rests on public identification. On the other hand, with a sentence like "*That lady* [pointing to Queen Elizabeth] is visiting

France” or “*She* [pointing to Queen Elizabeth] is visiting France”, one says of Queen Elizabeth that she is visiting France. One is not saying that whoever happens to be referred to by ‘she’ (or whoever happens to be pointed/singled out/... by the utterer when she utters ‘she’) or whoever happens to be the lady pointed at by the utterer of ‘that lady’ is visiting France. If an incomplete description is short for an indexical description, though, the latter can be assimilated to a complex indexical and it thus becomes a singular term involving perspectival identification.

To summarize: if incomplete descriptions are considered to be singular terms then temporal indexicals like ‘next Monday’ can be assimilated to incomplete descriptions. If, on the other hand, incomplete descriptions are considered to be quantified expressions, then temporal expressions like ‘next week’ and ‘last Wednesday’ cannot be assimilated to incomplete descriptions.

Another point in favor of the thesis that a temporal indexical is not a disguised definite description is suggested by that fact that the former, unlike the latter, always takes wide scope with respect to psychological or modal prefixes. In (13) and (14):

- (13) Jon believes that *next Monday* it will be raining.
- (14) In some possible worlds *next Monday* it will be raining.

‘next Monday’ takes wide scope, i.e., it is not governed by ‘Jon believes that’ and ‘in some possible worlds’, while in (15) and (16):

- (15) Jon believes that *the next president of the USA* will be a democrat.
- (16) In some possible worlds *the next president of the USA* will be a democrat.

‘the next president of the USA’ does not necessarily take wide scope.²⁴ To be sure, this argument shows that if ‘next Monday’ reduces to a description, the latter turns out to take wide scope as well. Actually, in (17) and (18):

- (17) Jon believes that on *the first Monday following today* it will be raining.²⁵
- (18) In some possible worlds on *the first Monday following today* it will be raining.

‘the first Monday following today’ takes wide scope as well. But this is due to the fact that it contains the pure indexical ‘today’. (17) and (18) mirror (19) and (20):

- (19) Jon believes that *the agent of this utterance* is rich.
- (20) In some possible worlds *the agent of this utterance* is rich.

‘The agent of this utterance’ takes wide scope as well because it self-refers to the speaker of (19) and (20). For ‘the agent of this utterance’ to take narrow scope in (19) and (20) it should be rephrased as ‘the utterer of ‘I’’. This way, though, we bring in quotations: ‘I’, unlike ‘the agent of this utterance’, is not used but mentioned. Actually, consider:

- (21) Jon believes that *the utterer of ‘I’* (whoever he/she happens to be) is rich.
- (22) Jon believes that I am rich.
- (23) In some possible worlds *the utterer of ‘I’* (whoever he/she happens to be) is rich.
- (24) In some possible worlds *I* am rich.

(21) and (22), as (23) and (24), do not state the same thing. In (22) and (24) ‘I’ refers to the speaker or writer while in (21) and (23) ‘the utterer of ‘I’’ does not necessarily stand for the speaker or writer.

The moral I would like to draw from these examples can be stated as follows: ‘the first Monday after this utterance’ can be understood to be the meaning or character of ‘next Monday’, just as ‘the agent of this utterance’ is the character of ‘I’. If I am right, ‘the first Monday after this utterance’ is a function from context to content or referent and, as such, can be viewed as the linguistic meaning or character of ‘next Monday’. This goes hand in hand with the thesis that the use of temporal indexicals like ‘today’, ‘next Sunday’, ‘last year’, ... presupposes perspectival identification. If these terms were to work like proper names or definite descriptions they would rest, like the latter, on public identification. For these reasons expressions like ‘next Monday’, ‘last week’, etc. like ‘I’, ‘today’, ‘tomorrow’, etc., are not disguised descriptions but singular terms. They are, as I have been arguing, pure indexicals.

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NOTES

¹ “Words come to us prepackaged with a semantic value. If we are to use *those* words, the words we have received, the words of our linguistic community, then we must defer to *their* meanings. Otherwise we play the role of language *creators*. In our culture the role of language creators is largely reserved to parents, scientists, and headline writers for *Variety*; it is by no means the typical use of language as the subjectivist semanticist believe. To use language as language, to express something, requires an intentional act. But the intention that is required involves the typical consumer’s attitude of compliance, not the producer’s assertiveness” (Kaplan 1989, 602).

² The terminology comes from Russell (1940).

³ For argument sake I am here ignoring the case of answering machines, post-its, and other similar devices. In the case of a post-it or a recorded message on an answering machine one makes an utterance at a distance or, to borrow Sidelle (1991) terminology, a deferred utterance.

⁴ For more on this particular feature of indexicals see Perry (1997).

⁵ See Kaplan (1977). To be precise, in Kaplan’s logical framework the content is a function from circumstances of evaluation to extensions. Henceforth I shall forget these subtleties for Kaplan’s distinctions between context of utterance and circumstance of evaluation and between content and extension does not affect my argument. Besides, I shall characterize the character of an indexical in terms of utterances, for a given token (e.g., a note on a post-it or a recorded message) can be used to make different utterances.

⁶ “[T]he reference of a type two demonstrative [i.e., what I called demonstratives] is not fixed by the parameters that suffice to specify the occasion in question, that is to say, by a person and his or her spatiotemporal vantage point.” (Hintikka 1998, 208).

⁷ The characteristics I am mentioning need not be necessary nor sufficient conditions distinguishing pure indexicals from demonstratives. It is always possible to find an example of a demonstrative or pure indexical which does not fit within the mentioned characteristics (e.g., ‘here’ pointing to a map is used as a demonstrative, ‘now’ in “Millions of years ago the Earth was *F*, *now* it’s *G*” does not seem to pick out the time it is uttered but rather a long period, ...). These characteristics should capture, though, the *paradigmatic uses* of pure indexicals and demonstratives. The most prominent counterexamples to C1–C3 I can think

of, involve technological devices such as answering machines, videotapes, etc. If Michael Schumacher, watching a videotape of last year Montecarlo race, says “Now, is when I lost the race”, ‘now’ does not pick up the time he utters it. These technological devices do not constitute, though, the paradigmatic use of language. Actually, I do not think that language has undergone a radical change to adapt to, and incorporate, these non-paradigmatic uses of indexicals.

⁸ As Hintikka points out: “there is in any case a close conceptual connection between demonstratives and perspectival identification. It is at its clearest in the case of visual cognition, as usual. Clearly *a* can point to (ostend, demonstrate) *b* if and only if . . . *a* sees *b*.” (Hintikka 1998, 206).

⁹ In some cases one can refer to something behind her, say a vase, using ‘that vase’ for she has been told that the vase is there. Being blind one can refer to the bottle on the table with ‘this bottle’ because she has been told that a bottle is on the table. These cases do not constitute, though, the paradigmatic uses of demonstratives, for the speaker is somewhat “borrowing” someone else’s perceptual apparatus. It is also possible that one uses a demonstrative expression without actually perceiving the referent. It would be so for instance in the case, when, pointing to a picture behind me, I say or think “She is *F*”. In this case my use of ‘she’ is still perception-based. For I used it on the basis of a memory of perception. In all these cases, my audience, if any, would perceive the relevant referents. The demonstrative reference is thus perception-based even in these awkward cases.

¹⁰ For argument sake I am here ignoring cases of deferred reference or ostension such as “He is late today” uttered when pointing at someone’s office meaning that the occupier of the office is late or “She is already back” when pointing to someone’s car parked in front of her house, etc. I am also ignoring conceptions (like Castañeda’s for instance) arguing that the referent of ‘I’ is not a person/agent but rather a person’s stage. In that case, different utterances of ‘I’ uttered by the same agent refer to different referents.

¹¹ To be precise, I should distinguish between what may be labeled *basic* pure indexicals (‘I’, ‘now’, ‘here’, ‘today’) and *derivative* pure indexicals (‘tomorrow’, ‘next Wednesday’, ‘my car’, . . .). For the latter, unlike the former, can be vacuous. Thanks to a referee for pointing this out to me.

¹² Another way to characterize the linguistic meaning of ‘this Monday’ could be: “The first day of the week of this utterance”. It is an accident, though, whether Monday is taken to be the first, second, etc. day of the week. On the other hand, the order of the days is not accidental and, as such, cannot be changed. For these reasons when characterizing the meaning of ‘Monday’ and the like, we have to make reference to the cycle. One knows the meaning of ‘Monday’ if one knows that it stands for the day following Sunday and preceding Tuesday. For, temporal terms like ‘Monday’, ‘spring’, ‘January’, etc. are defined in a recursive way making reference to the order.

¹³ In some cases, though, ‘this Monday’ does not refer to the Monday of the week in which the utterance occurs. If, on Wednesday, one says “This Monday I’ll be visiting Paris”, ‘this Monday’ refers to the Monday of the week following the week in which the utterance occurs. If we accept that a sentence like the latter is grammatical, then it can be viewed to be elliptical of: “This/the *coming* Monday I’ll be visiting Paris” or simply “*Next* Monday I’ll be visiting Paris”. Actually, this is the way one understands our problematic sentence.

¹⁴ My argument, though, is independent of Recanati’s, Voltolini’s and Castañeda’s arguments. For even if one accepts their viewpoint and ends up assuming that proper names do not form a grammatical category, one would be inclined to accept the thesis I am defending, i.e., that temporal terms are count nouns.

¹⁵ Notice that if we understand (1) as “The teaching starts the Monday of next week” or “The teaching starts the first Monday following today”, we would consider ‘Monday’ to be an abbreviation of a definite description containing temporal indexicals, e.g., ‘next week’, ‘today’. This should not undermine the thesis I am putting forth, i.e., that ‘Monday’ is a count noun which can be completed by a determiner to form a noun phrase. As we shall see in next section, though, expressions like ‘next Monday’ are best understood as singular terms, rather than descriptions. Besides, (1) seems to look like: “The train left on time”. The latter, though, seems to be short for: “The train left the time it was scheduled to leave”. In this case ‘on time’ does not seem to work like an indexical but like a definite description. ‘Next time’ and ‘last time’ do not seem to work like indexicals either, but like definite descriptions. If translated into French or Italian, for instance, they become definite descriptions ‘la prochaine fois’/‘la dernière fois’ or ‘La prossima volta’/‘l’ultima volta’. This suggests, at least to me, that a sentence like “Next time we’ll meet . . .” is short for “The next (or first) time we’ll meet . . .”.

¹⁶ Another, and maybe more accurate, way to understand (2) would be: Teaching starts one of the days of the week following Sunday.

¹⁷ Using the traditional *de re/de dicto* distinction to deal with Lois’s emotional attitude, we have to interpret (1b) and (3b) to be *de dicto*. Henceforth I shall interpret all the attributions to be *de dicto*.

¹⁸ For simplicity sake, I am ignoring the fact that (1c) can have two readings, the *de re* or specific and the *de dicto* or non-specific, and I invite you to understand it in the *de dicto* way, i.e., Lois wishes that there is a bachelor and she meets him.

¹⁹ Notice that in translating a word like ‘bachelor’ or ‘vixen’ into another language we may not find the corresponding word. In French and Italian, for instance, we do not have the corresponding word for ‘vixen’. So we are forced to translate this word’s definition. This phenomenon suggests that the definition is more basic than the word it defines and parallels the fact that the knowledge of the definition is more basic than the knowledge of the word it defines. It is for this reason that one can understand ‘unmarried man’ without understanding ‘bachelor’ while one cannot understand the latter without understanding the former.

²⁰ See Burge (1978) and Mates (1952) for instance.

²¹ For arguments sake, I am ignoring the position of some direct reference theorists (e.g., Salmon and Soames) who argue that proper names can be substituted *salva veritate* in attitude ascriptions as well.

²² Not all incomplete descriptions, though, can be considered to be singular terms, for there are attributive uses of incomplete descriptions. If in front of Smith savagely mutilated body one claims “The murderer is insane” one need not have a specific murder in mind. The description ‘the murderer’ is incomplete (unfortunately there is more than one murderer in the universe), yet used attributively in as much as the speaker means that *whoever* committed this specific murder is insane.

²³ Using the well known Russellian distinction popularized by Kaplan between singular and general proposition this amount to say that with definite descriptions we express general proposition while with indexical expression we express singular proposition. In the latter case the descriptive content (the meaning of the indexical) does not get into the proposition expressed, i.e., what is said). With indexical descriptions we express mixed propositions, i.e., proposition containing both descriptive elements and referents.

²⁴ (15) can have either the wide scope reading rendered adopting Russell’s theory of descriptions as follows: $(\exists x)(x$ is the next president of the USA & $(y)(y$ is the next president

of the USA $\rightarrow y = x$) & Jon believes that x is a democrat). The narrow scope reading would be cashed out as follows: Jon believes that $(\exists x)(x$ is the next president of the USA & $(y)(y$ is the next president of the USA $\rightarrow y = x)$ & x is a democrat).

²⁵ Notice that if we replace ‘the first Monday following today’ with ‘the first Monday after this utterance’, the latter would take wide scope as well, for it is self-referentially linked to the very utterance.

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