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## Are 'here' and 'now' indexicals?

François Recanati  
 Institut Jean Nicod (CNRS)  
 1bis, avenue de Lowendal, 75007 Paris, France  
 recanati@ehess.fr

### I. Indexicals, intentionals, and mixed cases

#### §1.1 *Indexicals and intentionals*

'I' refers to the speaker, 'today' refers to the day in which the utterance takes place, 'tomorrow' refers to the day following the day on which the utterance takes place... Those expressions are (pure) indexicals. Their reference depends upon the context of use, and their linguistic meaning determines what their reference is in a given context of use. For each indexical, there is a *token-reflexive rule* which determines what that indexical refers to as a function of what Kaplan calls "brute facts of the context": who speaks, when, etc. The rule in question constitutes the linguistic meaning (the 'character') of the indexical.

Other expressions such as the third person pronoun 'he' or the demonstrative 'that' share with indexicals the property that their reference depends upon the context. But there is no rule which determines what the reference is in a given context. The speaker is free to refer to what he wants by using 'that'. Of course there are constraints which limit that freedom. Thus the reference of 'he' must be a male individual; that constraint is linguistically encoded, hence I will call it the linguistic constraint. The linguistic constraint is far from being uniquely-determining, however: *any* male individual can be referred to by means of 'he'. In the case of a pure indexical like 'I', the constraint is uniquely-determining. Only the speaker can be referred to by means of 'I'.

To sum up, the reference of an indexical is determined by a token-reflexive rule which is (part of) the meaning or character of the expression. In contrast, the reference of an intentional (as I will call the other sort of context-dependent expression) essentially depends upon the speaker's intentions. Intentionals are like free variables. One might attempt to

downplay the difference between indexicals and intentionals by pointing out that there is a rule which determines the reference of an intentional in context: the rule that an intentional refers to whichever object meets both the linguistic constraint (e.g. being male) *and* a pragmatic constraint (being what the speaker intends to refer to). In other words, the speaker's intention may be considered as the crucial contextual factor on which the reference of an intentional depends, just as the reference of an indexical depends upon factors such as the identity of the speaker or the time of utterance.

If we take this line, the difference between indexicals and intentionals is not abolished. It becomes a difference between expressions whose reference depends upon brute facts of the context (independent of the speaker's intentions), and expressions whose reference depends upon the speaker's referential intentions. Be that as it may, I prefer to talk of a reference-determining 'rule' only when the linguistically encoded constraint suffices to determine the reference. Thus in the case of 'I' the constraint is that the referent be the speaker. That constraint suffices to determine the reference. In the case of 'he', the constraint is that the referent be male. That constraint does not suffice to determine the reference: The speaker's intentions must be appealed to.

### *§1.2 Impure indexicals*

The meaning of an intentional only constrains the reference, it does not fully determine it. Moreover, in general at least, the constraint is not token-reflexive. The constraint that the reference of 'I' be the speaker (the person uttering this token) *is* token-reflexive, but the constraint that the reference of 'he' be male is not.

Let me now introduce an intermediate category of mixed cases. Impure indexicals, as I call them, are intentionals in the sense that their linguistic meaning does not determine, but merely constrains, their reference; which reference therefore depends upon the speaker's intentions. But the constraint is token-reflexive: this makes them very similar to indexicals — whence the name 'impure indexicals'.

As an illustration, consider the first-person plural pronoun 'we'. It is an intentional: in a given context, 'we' refers to a group of people which is constrained but not determined by the linguistic meaning of 'we'. Ultimately it is the speaker's intentions which determine which group a given occurrence of 'we' refers to. But the reference has to satisfy a

constraint: the group in question has to contain the speaker among its members. So both in the case of 'I' and in the case of 'we' the reference must bear a certain relation to the speaker: being identical to him or her in the case of 'I', containing him or her among its members in the case of 'we'. But the relation is one-one only in the case of 'I'. Since several groups of people can contain the speaker among their members, the constraint is not uniquely-determining in the case of 'we' and we need the speaker's intentions to fix the reference.

To sum up, there are three sub-categories within the broad category of 'indexicals' in the traditional sense (context-dependent expressions): pure indexicals like 'I' and 'tomorrow'; pure intentionals like 'she', where the referential constraint is not token-reflexive; and impure indexicals like 'we', which are intentionals but where the referential constraint is token-reflexive (Fig. 1).

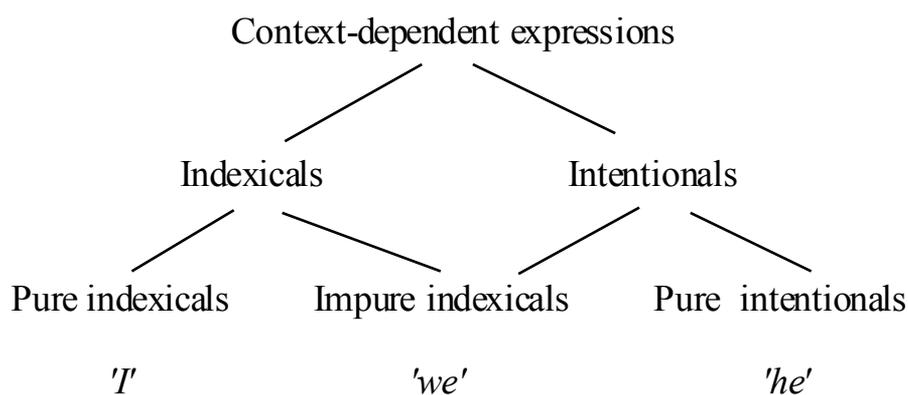


Fig. 1

## II. Problems with 'here' and 'now'

### §2.1 *The 'vagueness' problem*

What about 'here' and 'now'? They are standardly treated as pure indexicals. Much as 'I' refers to the speaker, 'now' is said to refer to the time of utterance and 'here' to the place of utterance. But there is a well-known difficulty: the so-called vagueness of 'here' and 'now'. 'Here' and 'now' can refer to temporal or spatial regions of any size, provided the region in

question contains the utterance. This suggests that 'here' and 'now' may be best treated as impure rather than pure indexicals.

On the impure-indexical analysis 'now' is linguistically constrained to refer to a time interval including the moment of utterance. That constraint is token-reflexive, but it does not suffice to determine the reference, because there are many time intervals of varying lengths that include the moment of utterance. The same thing holds for 'here'. It refers to a place in which the utterance is tokened, but there are many such places. Thus this very utterance takes place in this room, but it takes place also in Trento, in Italy, etc.<sup>1</sup> So it seems that 'here' and 'now' are impure indexicals, like 'we'. The reference is constrained to bear a certain relation to the utterance: it must contain it temporally or spatially. But that relation is many-one, hence 'here' and 'now' are not pure indexicals. Their reference depends upon the speaker's intentions.

Still, one may insist that 'here' and 'now' are *pure* indexicals and make the token-reflexive constraint uniquely-determining. For example, one may claim that 'now' refers to the (exact) time of utterance, that is, to the *minimal* interval of time which contains the totality of the utterance event. On this analysis 'now' is a pure indexical. Its reference is no longer constrained to *contain* the moment of utterance (something which many time intervals do), but to *be* the moment of utterance. The encoded relation is now one-one rather than many-one.

At this point, of course, we must explain why 'now' can refer not only to the exact time of utterance, but also to periods of any length including it, as when we say 'We are happier now than we were last year'. One option consists in appealing to the notion of *extended use*. I can use 'today' not in the literal sense but in an extended sense to refer to a period of time much longer than a day. (As in 'Today, most people live in big cities'.) The problematic uses of 'now' can be treated similarly as extended uses, to be accounted for within pragmatics rather than within semantics.

The first option (the impure-indexical analysis) seems to me much better than the second one. For there is a difference between 'now' and 'today'. It is analytic that today is a day: the nature of the period of time referred to is linguistically encoded. There is no difference between 'today' and 'Wednesday' or 'Saturday' in that respect. Since that is so, it makes sense to treat uses in which 'today' refers to a different type of period (e.g. an era or a century) as deviant or extended. But with 'now', it is far from

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<sup>1</sup> This paper originates from a talk delivered in Trento (Italy) in September 1999.

obvious that the nature of the period is linguistically encoded; hence it is somewhat arbitrary to rule out certain uses, but not others, as deviant and extended. Moreover, we can hardly do with 'here' what we have just done with 'now'. For what is the minimal place of utterance? Is it the minimal space occupied by the speaker's feet? The notion of 'place of utterance' seems to be inherently vague, in contrast to the notion of 'day of utterance', which is quite precise.

### §2.2 *Recorded messages*

There are other difficulties for the view that 'here' and 'now' are pure indexicals. A well-known case is 'I am not here now' recorded on an answering machine. By 'now' the speaker refers to a time *later than* the moment of utterance, namely the time when someone will listen to the recorded message. The period referred to does not even contain the moment of utterance here, so this type of example threatens not only the view that 'here' and 'now' are pure indexicals, referring to the time and place of utterance respectively, but also the view that they are impure indexicals referring to a time or place *containing* the time or place of utterance. How can we handle such cases?

Here again we have two options (Recanati 1995). One is this: we can formulate the token-reflexive rule as the rule that 'now' refers to the time at which the message is *delivered*. In a normal situation of communication (face to face) the time of delivery is the time of utterance. But in a situation of delayed communication, the notion of 'delivery' becomes vague and equivocal. Is the message delivered when it's issued or when it's received? Both interpretations are legitimate. It follows that 'now' can refer either to the time of utterance or to the time of reception. On this view token-reflexive rule there is, but its interpretation is not fully determinate, or rather it's determinate only in prototypical situations of face-to-face communication. In situations of delayed communication, the reference cannot be determined by appealing solely to the linguistically encoded constraint. The speaker's intentions must help resolve the indeterminacy in the interpretation of the constraint. This sort of case can therefore be thought to provide a second reason for saying that 'here' and 'now' are impure rather than pure indexicals.

But there is an alternative option. Once again we can dispose of that type of case by appealing to the notion of a deviant or extended use. In quotation, in fiction, in irony, and in a number of other cases, we pretend

that the context is different from what it actually is, and we use the pretend context to determine the reference of indexicals (Recanati 2000). Thus, in a novel, 'I' refers to a fictional character, namely the narrator, rather than to the actual author of the fiction. This is an instance of context-shift.

There is context-shift whenever the context used in evaluating a expression is not the context of utterance but an alternative, imaginary context. A good example is provided by the following instance of so-called free indirect speech:

After a while, she gave her response. Tomorrow, she would meet me with pleasure; but she was too busy now.

The speaker, say John, reports an utterance by Mary in response to John's earlier query. 'Tomorrow' refers to the day following that of the reported utterance, not to the day following that of the report. Both 'tomorrow' and 'now' are evaluated with respect to the reportee's context. Other elements in the sentence, however, are evaluated with respect to the speaker's actual context. This is an important feature of context-shifts: they can be local and selective.

Using this tool, we may say that in the recorded message example the speaker projects herself into the hearer's shoes so that his context (the hearer's context) becomes relevant for the evaluation of the indexical 'now'.

### *§2.3 Shifted uses of 'here' and 'now'*

If one looks at a big corpus, one realizes that there is a very large class of similar counterexamples to the standard indexical analysis of 'here' and 'now'; that is, very many cases in which 'now' does not refer to a time interval including the time of utterance, and 'here' to a place where the utterance is located. Yet those further counterexamples cannot be disposed of by appealing to the impure-indexical analysis in the way that can be done for disposing of the recorded-message counterexample. In his paper 'Utterance, Interpretation, and the Logic of Indexicals' (Predelli 1998), Stefano Predelli gives the following examples in which 'now' and 'here' are used deviantly, in a way which does not satisfy the token-reflexive constraint:

In the summer of 1829, Aloysia Lange, née Weber, visits Mary Novello in her hotel room in Vienna... Aloysia, the once celebrated singer, *now* an old lady of sixty-seven... gives Mary the impression of a broken woman lamenting her fate

If an entire neighborhood could qualify as an outdoor museum, the Mount Washington district would probably charge admission. *Here*, just northwest of downtown, are several picture-book expressions of desert culture within a few blocks.

As Predelli points out,

'now' in the passage on Aloysia refers neither to the time of encoding (when the book was written) nor to the time of decoding (when I read it), and 'here' in [the other passage] picks up neither the author's home nor the location of the reader. (Predelli 1998: 407)

The only available solution in such cases seems to be to appeal to the notion of context-shift (or to Predelli's equivalent notions). This analysis seems fully justified for if we look at the first example, we notice the use of the 'historical present'. This is a rhetorical device by means of which we 'presentify' the scene we are reporting. No less than free indirect speech, historical present involves something like mental projection. It is not surprising that occurrences of 'now' can be found in such passages. We pretend that the scene described is presently happening before our eyes. It is therefore natural to use 'now' to refer to the time of the scene.

#### §2.4 *Summing up*

Let us take stock. There are examples that clearly tell against the view that 'here' and 'now' are *pure* indexicals. The so-called 'vagueness' examples fall into that category. Attempts to protect the pure indexical analysis from such counterexamples by appealing to pragmatic notions such as that of an extended use are not convincing. Other counterexamples are more threatening because they cast doubt on the indexical analysis generally: they show that the reference of 'here' and 'now' need not be a place or a time interval including the time or place at which the utterance takes place. Can we protect the indexical analysis from such counterexamples? It seems that we can, by appealing to notions such as that of a context-shift. Yet, I

will argue, that defense is not without its problems and we may ultimately have to give up the view that 'here' and 'now' are indexicals, whether pure or impure.

### III. 'Here' and 'now' as (pure) intentionals

#### *§3.1 Allegedly shifted uses of 'here' and 'now' in dry encyclopedia articles*

Let us consider Predelli's first example again. As I pointed out, the occurrence of historical present in that passage sufficiently establishes that something like mental projection operates; this, of course, supports Predelli's analysis in terms of context-shift. Yet it is important to realize that similar uses of 'now' can occur even in the absence of historical present or of any other device (or symptom) of mental projection. Thus we may replace the present tense in Predelli's example by the past tense throughout without any problem:

In the summer of 1829, Aloysia Lange, née Weber, visited Mary Novello in her hotel room in Vienna... Aloysia, the once celebrated singer, *now* an old lady of sixty-seven... gave Mary the impression of a broken woman lamenting her fate

The dramatization introduced by the historical present is no longer there. The whole scene is reported using past tense. Still, 'now' is used. One may argue that in the above example of free indirect speech also we find occurrences of 'now' in conjunction with the past tense, referring to what was the present at the time in the past when the reported episode took place. But it would be a mistake to consider an example like this one as similar to free indirect speech and other cases in which a context-shift occurs. It is only superficially similar.

In free indirect speech, a context-shift is operative so that one can e.g. use 'tomorrow' to refer to the day following the reported scene (rather than the day following the report). The shift is prepared and indicated by various rhetorical devices which tend to facilitate a process of mental projection. One cannot find such shifted uses of 'tomorrow' outside very specific literary settings. This immediately raises an objection to a Predelli-type analysis. For allegedly shifted uses of 'here' and 'now' can be found all over the place. Even in dry encyclopedia articles they are everywhere. But

we do not find a single use of 'today' or 'tomorrow' evaluated with respect to a context distinct from the context of utterance outside restricted literary contexts (except, of course, in direct quotation). This asymmetry must be accounted for. To account for it, I suggest an alternative approach to the allegedly shifted uses of 'here' and 'now'. On this approach, the relevant uses of 'here' and 'now' do not really involve a context-shift. They are not extended or special — they are normal uses.

### *§3.2 Demonstrative uses of 'here'*

Before proceeding, let me mention another group of examples which raise difficulties for the indexical analysis of 'here' and 'now': the so-called demonstrative uses of 'here'. For example, I can point to Germany on a map and say: 'Joseph is here now'. My utterance does not take place in Germany, hence the token-reflexive constraint (to be or contain the place of utterance) is not satisfied by the reference: Germany.

It may be that, following Nunberg, we must draw a distinction between index (demonstratum) and reference, in such a case. Then the spot on the map will be the index, and Germany the reference. Perhaps it is the index, rather than the ultimate reference, which must satisfy the constraint. Can this distinction help? Well, the spot on the map is indeed much closer to the place of utterance than Germany is. But the spot on the map neither is nor contains the place of utterance. (It's just the opposite that seems to be true: The place of utterance, if we construe it broadly enough, includes the spot on the map: for the utterance takes place in this room, the map itself is in this room, and the spot is on the map.) Clearly, then, the token-reflexive constraint is not satisfied, whether we construe it strictly or loosely. 'Here' seems to be used as a demonstrative, equivalent to 'this place', with the reference fixed by the speaker's intentions externalised by a pointing gesture.

Faced with such uses, some say that 'here' is ambiguous. On one reading 'here' is an indexical, characterized by a token-reflexive rule. The reference of 'here', so construed, must be a location where the utterance takes place. On another reading, 'here' is a demonstrative. It refers to a place determined by the speaker's intentions, but the place in question does not have to satisfy the token-reflexive constraint which characterizes indexical uses. The place referred to does not have to contain the utterance, on the demonstrative uses.

Yet many theorists do not like to posit ambiguities and prefer unified accounts whenever possible. Can we avoid positing an ambiguity, in the case of 'here'? One solution would be to loosen the token-reflexive constraint and say that 'here' refers to a place which either is, or contains, *or is in the vicinity of* the place where the utterance takes place. The more we loosen the token-reflexive constraint in this manner, the more impure the indexical becomes. Another, more radical solution is this: we can give up the view that 'here' is an indexical, *and construe it as a pure intentional in all its uses*. It is that radical solution which I would like to pursue here.

So far we have considered only two theories for 'here' and 'now': the pure-indexical theory, and the impure-indexical theory. We have not yet considered pure-intentional theories of 'here' and 'now'; nor have such theories ever been put forward in the literature, to my knowledge. I wonder why, because that sort of theory seems to me very promising. In particular, it enables us to account for the Predelli type of example in a very satisfactory manner.

### §3.3 'Here' and 'now': sketch of a demonstrative analysis

Take the Encyclopedia Britannica or any similar corpus. Check all occurrences of 'here' and 'now' — there are plenty. Most of them will be *prima facie* counterexamples to the claim that 'here' refers to the place of utterance and 'now' to the time of utterance. It will be found that 'here' can refer to any previously mentioned place provided it is contrasted with another place considered as more remote for one reason or another. Similarly for 'now': it can refer to any period, provided it is contrasted with another, more distant period. In other words, 'here' essentially contrasts with 'there', and 'now' with 'then'. The contrast is relative. When considering two times, or two places, if one is thought of as closer (to us, or to an arbitrary reference point) than the other, we can refer to the closer one as 'now' or 'here'. Thus in the above example what is relevant is the contrast: "Aloysia, the *once* celebrated singer, *now* an old lady of sixty-seven..." In Predelli's Mount Washington district example, a place is referred to as 'here' presumably in contrast to the other places that were previously mentioned in the guide before that one came to the fore.

I do not wish to deny that there is a certain sense of 'presence' or 'givenness' that is associated with 'here' and 'now'. I am only saying that the constraint on the reference of 'here' and 'now' is much weaker than the standard indexical analysis suggests: the only constraint is that the place or

time referred to be *close*, in a sense which need not be absolute but may be as relative as you wish. The place of utterance and the time of utterance have this feature *par excellence*; and whenever we engage in mental simulation and pretend that some place or time is the place or time of utterance, the place or time in question thereby acquires the relevant feature of proximality. But any place or time, if it is closer than some other place or time in a relevant contrast pair, can be referred to by 'here' or 'now'. It will be 'close' in a relative sense, and that is enough. For example, we can contrast two times, say one million years ago and two hundred million years ago. In that context, it will be possible to refer to the former as 'now'. For example: "Two hundred million years ago, such and such was (or: had been) the case. Now the situation was completely different."

In this framework, it is not surprising if 'here' has demonstrative uses. It is a demonstrative — a proximal place-demonstrative, meaning: *this place* or *at this place*, in contrast to 'there' which is a distal place-demonstrative, meaning: *that place* or *at that place*. Similarly, 'now' is a proximal time-demonstrative, meaning *this time* or *at this time*, in contrast to the distal time-demonstrative 'then' which means *that time* or *at that time*. If I am right, the proximal/distal contrast is exactly the same across the variety of demonstrative pairs:

|       |   |       |   |       |
|-------|---|-------|---|-------|
| This  |   | Here  |   | Now   |
| ----- | = | ----- | = | ----- |
| That  |   | There |   | Then  |

### §3.4 *Perspective point vs. utterance point*

At this point it may be doubted that the new analysis we arrive at is a genuine alternative to the indexical analysis. What does 'close' mean, if not 'close to us', that is, close to the speaker (or, perhaps, to the hearer)? Is not the proximality constraint a token-reflexive constraint? If that is so, then we are back to the view that 'here' and 'now' (and also 'this') are impure indexicals.

But we do not have to analyse proximality in this manner. Consider the well-known contrast between 'come' and 'go'. It is often taken to be part of the meaning of 'come' that the target place (the destination) must be where the speaker is. I would rather say that it must be 'close' (proximal), but here as elsewhere 'close' does not necessarily mean 'close to the

speaker'. One does not want to treat as extended or special an utterance of 'I will come to your party' in which the hearer's point of view predominates. The notion of context-shift is trivialized if we apply it here. It is simply not true that 'come' denotes a movement to the place where the speaker is; that is only one possible use compatible with the meaning of 'come'. One should rather say: 'come' denotes a movement to a place which is proximal in the sense of 'close to the perspective point', but the perspective point need not coincide with the location of the speaker or with what Austin used to call the 'utterance point'. We have such flexibility in varying the perspective point in speech that it is better to treat the perspective point as an independent parameter, distinct from the parameters relevant to the evaluation of indexicals.

David Lewis gives the following example of a shift in perspective point involving the verb 'come':

When the beggars came to town, the rich folk went to the shore. But soon the beggars came after them, so they went home.

The perspective point is first located in town; but in the second sentence the perspective point has followed the rich folk out of town. It is, therefore, their perspective that is expressed in this two-sentence passage. As Lewis points out, "in third-person narrative, whether fact or fiction, the chosen point of reference may have nothing to do with the speaker's or the hearer's location" (Lewis 1983: 243). Similarly, I think, the sort of 'proximality' that is involved in the analysis of the pairs 'here/there', 'now/then', and 'this/that' has to be understood as closeness to the perspective point, rather than as closeness to the utterance point. Closeness to the utterance point is only a special case, that in which the utterance point and the perspective point coincide. Thus I concur with Kamp and Reyle when they argue that the constraint on the reference of 'now' is not that the described eventuality must overlap with the utterance time, but that it must overlap with what they call the 'temporal perspective point' (Kamp and Reyle 1993: 595-99).

### *3.5 Conclusion*

'Here' and 'now' are intentionals. To determine their reference one must appeal to the intentions of the speaker. *If* 'here' and 'now' are indexicals, therefore, they are impure indexicals. The constraint on the reference which the expression encodes is not uniquely-determining.

Are 'here' and 'now' indexicals? Only if the constraint they encode is token-reflexive. I argued that the constraint in question is a proximity constraint, the same one that is encoded by the demonstrative 'this' or the verb 'come'. That constraint need not be construed as token-reflexive, I claimed. It is relative to the perspective point rather than to the utterance point.

If I am right, there is in the language a perspectival system, in virtue of which, when a scene is described, it is described from a certain point of view — a point of view which need not be that of anyone in the situation of utterance. The perspectival system is distinct from the indexical system, in virtue of which the reference of certain expressions is a function of features of the situation of utterance.

It may be that the perspectival system evolved from the indexical system. Prototypically the perspective point and the utterance point coincide. Deviations from the prototype, that is, cases in which they do not coincide, may be explained diachronically in terms of context-shift. One can project oneself into someone else's shoes, hence adopt the perspective of some other agent. But what may have started as extended use of the indexical system has stabilized as an independent system: the perspectival system. As a result, there is nothing special or deviant about the use of 'now' to refer to a time in the past, no need to appeal to pragmatic mechanisms such as context-shifting to account for such uses. In contrast, there is something special about using 'today' or 'tomorrow' to refer to a day in the past. In view of the big statistical difference between the sorts of use, I think we may tentatively conclude that 'here' and 'now' are *perspectivals* rather than *indexicals* proper.

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