"I" and "you" in spoken discourse

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Abstract

Contents of indexicals and how they are expressed are discussed in the present paper. Kaplan's (1989) analysis of indexicals, in particular, his distinction among the utterer, the agent, and the referent of a token of "I" (Corazza et al. 2001) is closely examined to clarify the uniqueness of an utterance which includes it. It will be claimed that the uniqueness lies in the fact the utterer is identified and referred to as the agent of the present instance of discourse in Benveniste's (1973) sense, not as an individual in the world. That is, the utterer is not specified in terms of her/his particularities which distinguish her/him from others in the world, but in terms of her/his speech or inscription of a token in the present instance of discourse. This causes the utterer her/himself to be highlighted. To clarify this uniqueness of the utterance with a token of "I", a short conversational exchange from the movie *Sommersby* is examined, and the utterance with an indexical is compared with equivalent utterances with a co-referring proper name and a co-referring definite description. The complexities of the relationship among the utterer, the agent, and the referent of a token of "I" are also described in discussing the so-called answering machine paradox and relevant cases. Furthermore, the analysis of different entities of a token of "I" is extended to other pure indexicals such as "you", "here", and "now", in which the hearer/place/time is distinguished from the

agent(addressee)/spatial location/temporal location of the present instance of discourse.

Key words: indexicals, personal pronouns, deixis, Kaplan, Benveniste

1. Introduction

In the present paper I explain a unique way in which the contents of the personal pronouns "I" and "you" are determined. These pronouns are *indexicals*[1] (Kaplan 1989) and the content of each token is determined by contextual factors. Adopting the distinction among *the utterer, the agent, and the referent* of the personal pronoun "I", which is clarified by Corazza et al. (2001), I explain how the referent of the pronoun "I" is determined through the identification of the agent. I claim that the referent of the personal pronoun "I" is determined without resorting to a person's uniqueness as having a particular name or particular features; it is rather specified in terms of the utterance or inscription. I extend this analysis to the personal pronoun "you". I assert that this unique way of identifying the referent of "I" and "you" contributes to the interpretation of the sentence, which can be different from the interpretation of an equivalent sentence with a co-referring proper name or definite description.

The structure of the paper is as follows. In Section 2, I

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1 I could use the term "deixes" rather than "indexicals" for the arguments in the present paper because I only analyze pure indexicals. However, since I start my argument by explaining Kaplan's framework, I use "indexicals" throughout the paper.

introduce Kaplan's (1989) concept of indexicals, and explain the generally accepted view that the truth/falsity judgment of a sentence with an indexical expression coincides with that of an equivalent sentence with a co-referring proper name or definite description. In Section 3, a short conversational exchange from a movie script is examined to show that the judgment of the truth/ falsity can differ depending on how the referent is identified, i.e., whether it is referred to by an indexical expression, a proper name, or a definite description. To explain this difference, I examine how the referent of the personal pronoun "I" is determined (in Section 4), and explain the distinction among the utterer, the agent, and the referent of the personal pronoun "I", which Corazza et al. (2001) clarify. In this section I explain the answering machine paradox (Sidelle 1991) and the case of a post-it note (Corazza et al. 2001). I claim different judgments of seemingly equivalent sentences are caused by distinctive ways of referent identification, where the referent is identified in terms of the present discourse, or of the world in which it exists. A short conclusion follows.

2. Pronouns, proper names, and definite descriptions

2. 1 Personal pronouns as indexicals

It is generally assumed, since Kaplan (1989: 489), that personal pronouns are indexicals along with demonstrative pronouns such as "that" and "this", adverbs such as "here", "now", and "tomorrow", and adjectives such as "actual" and "present". Among these indexicals Kaplan identifies two types, *true demonstratives* ("he", "she", "that", etc.) and *pure indexicals* ("I", "here", "now", etc.). A referent of true demonstratives is fixed by the speaker's

demonstrations or intentions, whereas a referent of pure indexicals does not depend on such demonstrations or intentions. For example, the character of "I" determines the content of each of its tokens to be the speaker producing it, where a contextual factor is sufficient to determine the content.

Now let us examine some problematic cases of the second-person pronoun "you". The personal pronoun "you" is a pure indexical, and the character of "you" determines the content of each of its tokens to be the person being addressed. However, as the following example shows, a contextual factor is not sufficient to determine the content; for different people to be referred to by the token of "you", different characters of "you", such as the character of "you_1" and that of "you_2" should be posited, or context change in the middle of the sentence should be allowed.

(1) You, you, but not you, are dismissed. (Levinson 1983: 66)

The following example shows another problematic case:

(2) You can never tell which sex they are nowadays. (Levinson 1983: 66)

The referent(s) of "you" is/are not a particular person or a particular group of people who is/are identified by contextual factors. The pronoun "you" in this sentence is generally described as generic "you", and the referents of its token are people in general. This suggests necessity for different characters of "you", i.e., the character of specific "you" and that of non-specific, or generic,

"you".

Another related issue is whether or not a contextual factor is sufficient enough to determine the content of generic "you". Since the referents of "you" in (2) don't seem to be people on the earth in general, a certain kind of specification of the group of people is involved. That is, the referents of a token of generic "you", and, more generally, non-specific plural "you", are people of a contextually relevant group, such as those in the speaker's community. This is just as the referents of "everyone" are all people of a contextually relevant group, rather than the entire population of the world (cf. Back 1994, Recanati 2004). The contextually relevant group for a token of non-specific plural "you" does not seem to be specified only by a contextual factor. That is, who the addresser and the addressee are, and what the time and place of the utterance are do not specify the contextually relevant group for a token of "you".

Using the concept of a domain of discourse, Gauker (2003: 11-12) explains the contextually relevant group in terms of which referents of "everyone" are specified. Imagine a lecturer says utterance (3a) at the beginning of the lecture. If the domain of discourse is students who are still enrolled in a course, the sentence means that every student who is still enrolled in the course is present. If the domain of discourse is students who have been attending recently, the sentence means that every student who has been attending recently is present. Similarly the relevant group for a token of plural "you" in (3b) may be specified in terms of a domain of discourse, either as the students who are still enrolled in the course or those who have been attending recently.

(3) a. Everyone is present.（Gauker 2003: 11）

    b. All of you are present.

So plural or generic "you" in these cases does not seem to be a pure indexical: the referents of its token are not determined automatically by a contextual factor as the referents of pure indexicals are claimed to be (cf. Perry 1997, 2001). Plural or generic "you" is not a true demonstrative, either. Obviously there is no demonstration involved in identifying its referents. The referents of tokens of plural or generic "you" do not seem to be determined by the speaker's intention, either, if we take the speaker's intention as what Corazza et al. (2001: 16) call the speaker's *individuative intention*: "the intention a speaker has to identify/speak about a given item". Even in the case in which a specific group of individuals is referred to by "you", the speaker does not necessarily have an individuative intention to identify this group. Quite often the speaker refers to people in general in her/his community by generic "you" without realizing that s/he limits the scope of people in this way. The lecturer in (3b) might mean that the students who have been attending recently are present without being conscious that s/he excludes from the referents of "you" those who are still enrolled in the course but have not been attending recently.

It is still reasonable to start an argument assuming that the character of the *singular* first-person pronoun "I" and the character of the *singular* second-person pronoun "you" determine the content of each of their tokens, and contextual factors are generally sufficient to determine it.

2.2 Pronouns and co-referring proper names and definite descriptions

Let us imagine the following scenario. A speaker, John Smith, tells his colleague that he is sick, and goes home. This colleague tells a secretary that he (= John Smith) is sick. Later, when asked why the department meeting has been cancelled, the secretary says that the head of the department is sick. In this scenario, the singular first-person pronoun "I" (in (4a)), the proper name of "John Smith" (in (4b)), and the definite description of "the head of the department" (in (4c)) refer to one and the same person, and these three utterances (4a-4c) are all true.

(4) a. I am sick.

b. John Smith is sick.

c. The head of the department is sick.

That is, equivalent sentences with the co-referring first person pronoun, proper name, and definite description express one and the same state of affairs.

We need some caution in analysing proper names and definite descriptions. It is well accepted, since Kripke (1980: 61-63), that, in modal sentences, substituting a co-referring description for a proper name can change truth-value. The following pair of sentences illustrates this point:

(5) a.　Aristotle might not have gone into pedagogy.

b.　The teacher of Alexander might not have gone into pedagogy.

Since Aristotle might have chosen a different course of life, the utterance in (5a) is true. However, since the person who did not go into pedagogy could not have been the teacher of Alexander, the utterance in (5b) is false. The standard explanation of possible world semantics is that the description substituted for the proper name is not a rigid designator, i.e., does not denote the same object in every possible world in which that object exists.

Although Kripke (1972[1980]: 11-12) does not accept it, the difference between rigidity of a proper name and non-rigidity of a definite description in (5a) and (5b) can be explained in terms of scope: names are "scopeless" with respect to modal operator, while definite descriptions are not. This is why (6a) and (6b) are equivalent intuitively, while (7a) and (7b) are not:

(6) a. It is necessary that Aristotle is F.

  b. Concerning Aristotle, it is necessary that he is F.

(7) a. It is necessary that the teacher of Alexander is F.

  b. Concerning the teacher of Alexander, it is necessary that he is F[2].

Gluer and Pagin (2006) give an alternative explanation to rigidity and non-rigidity. They claim that simple singular terms, including proper names, occur referentially in the contexts of ordinary modal expressions. However, these contexts are intensional with respect to other types of expression. Because

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2 See Gluer and Pagin (2006: 509$-$510) for the details of this analysis.

of this, the sentence (5a) is true, if and only if, what "Aristotle" actually refers to, in some possible world, did not go into pedagogy. The sentence (5b), on the other hand, is true if, and only if, what 'Alexander' actually refers to is such that, in some possible world, his teacher did not go into pedagogy.

However, since our targets are equivalent *non-modal* sentences with the co-referring first person pronoun, proper name, and definite description, the distinction between rigidity and non-rigidity does not affect the judgment of truth/falsity of the utterances.

Another related complication concerns the distinction between referential use and attributive use of the definite description. The definite description in (4c) can be interpreted referentially and attributively (intensionally) (Donnellan 1966). If we take "the head of the department" attributively, i.e., as "the head of the department—whoever s/he is", the sentence does not express one and the same state of affairs as those in (4a) and (4b): there is a person, who is the current speaker or has a name, John Smith, and this person is sick. Under the scenario, in which "the head of the department" is taken referentially, an equivalent reading is obtained: there is a person, who is the head of the department, and this person is sick.

There is, however, something peculiar about the way the contents of the personal pronoun "I" and "you" are determined. Let us show this using a short conversational exchange in the movie *Sommersby* (1993).

2. "Am I your husband?"

The setting for *Sommersby* is the U.S. in the late 1870s, and a man, Jack Sommersby, who fought in the war, comes back to his wife, Laurel, after six years. He does not behave as he used to, and Laurel starts to suspect that he is not her husband Jack Sommersby. Before the war, when Jack and Laurel were together as a couple, Jack had been cold to Laurel and she felt that she was rejected by her husband. With this "new" husband, who is warm and passionate, Laurel becomes happy and starts to love him. Then he gets arrested for a murder Jack Sommersby committed during the war. In the trial, a witness testifies that he is not Jack Sommersby, but rather Horace Townsend, which he denies. To save him, Laurel also testifies that he is not Jack Sommersby. Then he asks her a question as a cross-examiner:

(8) J:　Am I your husband?

　　L:　(a long pause) Yes, you are.

　　J:　Thank you.

The question is what proposition is queried by the first speaker, asserted by the second speaker, and agreed by both speakers. It is neither the proposition that Jack Sommersby is Laurel Sommersby's husband, which the second speaker doesn't assert, nor the one that Horace Townsend is Laurel Sommersby's husband, which the first speaker wouldn't query. Korta and Perry (2007: 171) say an utterance "I am I", in comparison with "I am Joana", would not commit the speaker to have the name "Joana". However, what is happening in this case is more than that: if the speakers identify the referent of "I" or "you" as the

bearer of either name, Jack Sommersby or Horace Townsend, there is not any proposition whose truth they can agree on. That is, if we substitute "I" for "Jack Sommersby" and "you" for "Horace Townsend" using contextual factors, the altered dialogue (in (9)) does not make sense:

(9) J: Is Jack Sommersby your husband?
　　L: (a long pause) (??)Yes, Horace Townsend is.
　　J: (??)Thank you.

What they seem to agree on is that a particular person is the husband of another particular person, and the former is identified not as the bearer of a name, Jack Sommersby or Horace Townsend, but as a particular person in this particular context/discourse, who is the addresser of the first sentence and the addressee of the second sentence. That is, when someone is identified through her/his act of speaking as the addresser, or her/his uptake of the utterance as the addressee, s/he is identified as a particular person who exists in a particular context/discourse, not as an individual with a unique name or particular features who exists in the world.

This seems to suggest that, contrary to the analysis of the sentences in (4) above, equivalent sentences with the co-referring first-person pronoun, proper name, and definite description do not express the same meaning. Let us compare the following three sentences:

(10)a. I am Laurel's husband.
　　b. Horace Townsend is Laurel's husband.

c.　The man charged with murder is Laurel's husband.

As we said above, there are two interpretations for the definite description "the man charged with murder" in (10c). If taken referentially, the sentence means that there is a particular person and he is charged with murder, and he is Laurel's husband. If taken attributively, the sentence means that the person who is charged with murder—you might not know him or who he is— is Laurel's husband. As Donellan (1966) observes, in the case of referential use, even if this particular person is not in fact charged with murder, say, he is a policeman who happens to stand by the charged person, the sentence can be true as long as this person is referred to.

The sentence with a proper name in (10b) is taken only referentially. The sentence means that there is a particular person and he is the bearer of the name Horace Townsend, and he is Laurel's husband. What if this person's name is not in fact Horace Townsend, but, say, as he claims, Jack Sommersby? If we take this case as analogous to Donnellan's referential use, we should say that the sentence can be true as long as this person is referred to. The sentence with the personal pronoun "I" in (10a) is taken only referentially as well: the sentence means that there is a particular person and he is the addresser of the current utterance, and he is Laurel's husband.

In the referential uses of definite descriptions and the use of proper names, there are cases in which a particular person is identified as a person with certain features or a name, but such identification is not accurate: the description is not true of the person referred to, or the name is not her/his name. There don't

seem to be any analogous cases for "I" and "you". If a person does not utter an utterance, s/he cannot use the pronoun "I" to refer to her/himself as the addresser. Similarly, if a person does not hear an utterance, s/he cannot be referred to by the pronoun "you". A possible gap between a particular person and a definite description, or between a particular person and a proper name for her/him seems to be a gap between a particular person and identification of this person by the name or description. Such identification is done through physical, social, and other features which characterize a person, or a unique name which indicates a bearer of the name.

In the case of referring to a particular person by a definite description or a proper name, there is a certain kind of "description" involved in the identification of the person, and this seems to affect the judgment of the truth/falsity of the utterance. The sentences in (10b) and (10c), for example, do not simply mean that a particular person is the husband of another particular person, but that a particular person identified as a bearer of the name Horace Townsend is the husband of another particular person identified as a bearer of the name Laurel (in (10b)), or a particular person identified as a man charged with murder is the husband of another particular person identified as a bearer of the name Laurel (in (10c)). It is for this reason that what the following sentences express is a contradiction in a straightforward sense:

(11) a. Horace Townsend is not Horace Townsend,
     b. The man charged with murder is not charged with murder,

To avoid a contradiction, "Horace Townsend" and "the man charged with murder" in the subject position should be interpreted as "the person we know as 'Horace Townsend'" or "the person you identify as 'Horace Townsend'" (in (11a)), or as "the person who is believed to be 'the man charged with murder'" or "the person you identify as 'the man charged with murder'" (in (11b)). This can be indicated more clearly by quotation marks:

(12) a. "Horace Townsend" is not Horace Townsend.

 b. "The man charged with murder" is not charged with murder.

If so, the identity as a bearer of the name Horace Townsend makes a significant contribution to the interpretation of the sentence in (10b), and the identification of the person in terms of his connection to the murder case, rather than other features of him, makes a significant contribution to the interpretation of the sentence in (10c).

There doesn't seem to be an equivalent gap between a particular person and the personal pronouns "I" and "you" to refer to the person. When a particular person is referred to as the addresser or the addressee, a person is not "described" in any sense, such as having particular features or being a bearer of a name as her/his identity, but simply referred to as a unique individual who is currently addressing or being addressed. This is, the personal pronouns "I" and "you" are used to refer to a particular person at the time and place of the utterance through her/his act of speaking or hearing/uptake.

According to the analysis proposed, let us interpret the original conversation in (8), which we have here again:

(13) J: Am I your husband?

     L: (a long pause) Yes, you are.

     J: Thank you.

The first utterance, in which the speaker refers to himself by "I", can be interpreted as the question of whether or not he is the hearer's husband because of what he is rather than who he is or how he is described. The speaker of the second utterance asserts that the person, whom she currently addresses, is her husband not because who he is or how he is described, but because of what he is.

In the same vein, we can say the sentence in (14a) but cannot say the one in (14b):

(14) a. Even if Jack Sommersby is not Jack Sommersby, I love him.

     b. *Even if you are not you, I love you.

When a particular person is referred to by a proper name, s/he is referred to as a bearer of the name. So the sentence in (14a) means that there exists a particular person, who is identified incorrectly as Jack Sommersby but is referred to nevertheless, and the speaker loves him. The sentence in (14b), on the other hand, does not make sense. By the pronoun "you" in the subject of the subordinate clause, the hearer is identified as a particular

person through her/his hearing and uptake of the utterance, and, therefore, referred to as a unique individual who exists at the time and place of the utterance. The speaker, however, denies, in the predicate, that this unique individual referred to is a unique individual addressed by the present utterance. It is a contradiction, and denies in the predicate part what one indicates in the subject part.

So far I have clarified how a particular individual is identified and referred to by the personal pronoun "I" or "you", a proper name, and a definite description. I claimed that the different ways a person is identified and referred to by each of these expressions affect the interpretation of the utterance about the person. When a particular individual is identified by a particular name, s/he is referred to as the person whose identity is specified by the name s/he has, and, therefore, her/his identity as the bearer of the name affects the interpretation of the utterance. When a particular person is identified by the singular definite description, s/he is referred to as the person who has a particular feature captured by the description, and, therefore, the description given to her/him affects the interpretation of the utterance. When a particular person is identified by the personal pronoun "I" or "you", on the other hand, s/he is identified as a person who is uttering or hearing the present utterance, where no "description" is involved. The interpretation of the utterance, therefore, is affected by nothing other than the referent being a particular individual who is the addresser or the addressee of the present utterance at a particular time and place. That is, while to refer to a person by a proper name or a singular definite expression is to indicate

the person by means of a given identity or description, to refer to a person by the personal pronoun "I" or "you" is to identify the person in terms of the discourse role as the addresser or the addressee, where the uniqueness of this person is indicated by her/ his utterance or uptake of the utterance.

This analysis agrees with Perry's (1977, 1979, 2000) observation that identifying oneself as the addresser by the first-person pronoun "I" is distinct from identifying her/him as a particular person with a particular name or particular features, and, therefore, to think about oneself in the first-person way, i.e., a *de se* attitude, cannot be reduced to a *de dicto* or *de re* attitude (cf. Ninan 2010: 551). Perry (1979) gives his experience of following a trail of sugar on a supermarket floor, seeking the shopper with the torn sack to tell him he was making a mess, without realizing that he was the shopper. In that situation John Perry would have said utterance (15a) believing that the shopper was making a mess, but not utterance (15b) believing that he (＝John Perry) was making a mess.

(15)a.　The shopper with the torn sack is making a mess.
　　b.　I am making a mess.

Perry (1979) shows this analysis can be extended to other pure indexicals ("you", "here", and "now").

In the following section, I try to clarify what makes referring to a particular person by "I" or "you" so unique on the basis of the analysis of "I" by Corazza et al. (2001).

3.　"Who is I?"

Corazza et al. (2001: 1-2) analyse the personal pronoun "I" by adopting Kaplan's account of pure indexicals. They explain Kaplan's account in the following way. The character of "I" is represented by a function that takes as argument the agent, and gives as value the referent. The logic of indexical terms forces the distinction between the utterer, the contextual parameters (agent, time, place and possible world) and the referents (contents). As utterances are features of the world and hence occur in time, it is not possible to provide a semantic evaluation of utterances. To overcome this, it is required to assess the abstract notion of a sentence-in-context. The *agent* is, therefore, an essentially logical notion, a contextual parameter filling the arguments of character, and giving us the referent of the indexical, and, as such, is logically distinct from the notion of an utterer.

Corazza et al. (2001: 2) then claim that Kaplan assumes that the utterer and the agent will always be identical and hence that the referent of "I" will always be the utterer. This account of indexical reference, they argue, appears to assume two identity statements; that the agent is the referent (from the character of "I"), and that the utterer is the agent. This account can be represented in the following way (Corazza et al. 2001: 2):

Determination of agent	Determination of referent
	f = (The character of "I")
The utter is the agent	f: agent → referent

While the utterer and referent are parts of the material world,

the agent is a logical parameter, playing the role of taking us from the language to the world. The agent-utterer identity ensures that, for every token of "I", the contextual parameter of the agent is identified with the utterer, the individual who uses the token. The character of "I" then completes the task by returning the utterer (= the agent) as the referent of the token. The character of "here" and "now" can also be represented in the same way. In each case, the character of the indexical is a function from a contextual parameter to the referent of the expression.

This idea is questioned by Sidelle (1991), who introduces what he calls the Answering Machine Paradox. According to Sidelle, since the character of "I", "here", and "now" is a function from a contextual parameter to the referent of the expression, utterances of "I", "here", and "now" refer, respectively, to the utterer, the location of utterance, and the time of utterance. Since the sentence "I am not here now" is uttered truly if and only if the utterer is not at the location of utterance at the time of utterance, and an utterer is always at the location of the utterance at the time of utterance, the sentence "I am not here now" may never be uttered truly. This conclusion is at odds with the intuition that there are true instances of the sentence "I am not here now" when it is uttered on a telephone answering machine—hence the Answering Machine Paradox—and written on a post-it note and stuck on an office door when its inhabitant is not in residence.

According to Corazza et al. (2001), this so-called "paradox" can be seen as a puzzle about the referent of "now". In the Kaplanean framework, the referent of "now" is the time of the utterance, but, for the answering machine or the post-it note to serve any

purpose, "now" must refer to the time at which a message is heard or read. Sidelle claims that an utterance can be *deferred*: the utterance takes place when the message is heard by the hearer or read by the reader (the decoding time) *not* when it is recorded or written (the encoding time).

Corazza et al. (2001) then posit two cases, where we cannot explain a puzzle by hypothesizing *deferred* communication, i.e., a message is heard or read at a deferred time.

The first puzzle is explained as follows. Imagine Joe is not in his office one day and Ben notices that a number of students keep approaching his door and knocking. They then stand around and look bemused for a while before leaving. Taking pity on these poor students wasting their time, Ben decides to attach his "I am not here today" note to Joe's door. The trick works; the students, instead of knocking and waiting, take one look at the note and then leave. To what does "I" refer? At the moment a student looks at the note, Corazza et al. claim, it would be strange to deny that it refers to Joe.

The second scenario comes from Predelli (1998a, 1998b). Imagine Joe, before leaving home at 8.00 AM, writes the following note to his partner: "As you can see I am not at home *now*. Please meet me *in six hours* in my office". Joe, expecting his partner to return at 5.00 PM, intends for her to meet him at 11.00 PM. If "now" in Joe's note refers to the time at which it is read, then Joe's partner will specify the time at which she reads the note. If, as expected, Joe's partner comes home at 5.00 PM and reads the note, "now" will indicate 5.00 PM and Joe's partner will meet Joe in his office at 11.00 PM.

Predelli then asks us to consider the scenario in which Joe's partner is unexpectedly delayed and doesn't return until 7.00 PM. "Now" in Joe's note should indicate the time when Joe's partner reads the note—7.00 PM. Predelli argues that Joe's partner, being aware that she was expected home at 5.00 PM, will not meet Joe at 1.00 AM the following day, but will meet him, as Joe expects, at 11.00 PM.

As for the first scenario, "I" refers to Joe, and this is certainly what the students take it to refer to. However, given that the character of "I" states that it refers to the agent, and, on Kaplan's account, the agent is identical with the utterer, Joe must be the utterer if he is the referent. As for the second scenario, where Joe's partner doesn't come home until 7.00 PM, "now" refers to 5.00 PM, rather than 7.00 PM, but on the Kaplanean account, "now" must be either at 8.00 AM, which is the encoding time, or at 7.00 PM, which is the decoding time.

Predelli claims that "now" in Joe's note does not always refer to the time Joe's message is read, it rather indicates the time Joe *intended* to specify. When Joe wrote a message, he believed that his partner would come home at the usual time, and read the message then, i.e., at 5.00 PM. So the decoding time that Joe meant, i.e., the time that he *intended* to specify by "now" is at 5.00 PM, rather than at 7.00 PM, which is the *actual* time when his partner comes home.

This analysis, Corazza et al. (2001) claim, can be applied to the first case. "I" in the "I am not here today" note does not refer to the writer, Ben, but to the inhabitant of the office whose door the note is put on, Joe, because the writer *intended* it to refer to

Joe. Corazza et al. (2001: 8) use the following diagram to explain differences and similarities between Kaplan's and Predelli's analysis of indexicals:

	Determination of agent	Determination of referent
Kaplan	The utter is the agent	f: agent → referent
Predelli	Intention determines the agent	f: agent → referent

Then Corazza et al. quite rightly observe that, if Ben can refer to Joe purely by virtue of his having the intention to refer to Joe by "I", it follows that "I" can be used to refer to pretty much anyone, which is not true. They propose to explain indexicals in appealing to *convention*: for any use of the personal indexical, the contextual parameter of the agent is *conventionally given*— given by the *social* or *conventional setting* in which the utterance takes place. For instance, with "now", the setting or context in which it is used changes the time that the term refers to: if "now" is heard on an answering machine, we take the relevant time to be the time at which it is heard, and we arrive at the referent accordingly. The following diagram shows the differences and similarities of analysis of indexicals among Kaplan, Predelli, and Corazza et al.:

	Determination of agent	Determination of referent
Kaplan	The utter is the agent	f: agent → referent
Predelli	Intention determines the agent	f: agent → referent
Corazza et al	Convention determines the agent	f: agent → referent

The social or conventional setting in which the utterance takes place, however, does not always determine the time the term such as "now" and "today" refers to. As the examples in (16) show, there are two conventions about the referent of "today" in recording a program and replaying it: "today" is the day when a program is recorded or the day when it is replayed:

(16) a.   This program is being recorded today, Wednesday April 1st, to be relayed next Thursday,

    b.   This program was recorded on Wednesday April 1st to be relayed today[3],

Corazza et al.'s explanation is better than Predelli's in that determination of the agent is much more restricted, and their model does not allow the speaker's intention to make anyone the agent. However, it doesn't seem to be the case that convention solely determines the agent of indexicals.

We might develop the argument about indexicals in a different

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3   Fillmore (1975).

direction. The issue might not so much rely on how a particular person or a particular spatial or temporal location is determined as the referent of an indexical, but how a particular person or a particular spatial or temporal location is referred to by an indexial, and what effect it makes on the interpretation of the utterance. In particular we focus on how a particular individual is referred to by the pronoun "I", and explain it by adopting a distinction among the utterer, the agent, and the referent.

4. The utterer, the agent, and the referent

If, as Corazza et al. claim, the utterer or writer of a token of "I" does not have to be the agent, what is the agent? How is a particular person identified as the agent and referred to? A reasonable explanation of indexicals seems to be that the agent of a token of "I" is a person who physically utters or inscribes the token, i.e., an utterer or writer of the token, and, therefore, a token of "I" *indicates* an agent as the utterer or writer of the token. However, as Corazza et al. suggest, in certain circumstances, the agent of a token of "I" is not the person who physically utters or inscribes the token. In such a case, the referent is a person who is *indicated* as the agent of the token as the utterer or writer of the token. That is, the referent of a token "I" is identified through the agency of the token, i.e., through her/his actual or presumed act of speaking or inscribing the token. Benveniste (1973: 218) explains this in saying "*I* can only be identified by the instance of discourse that contains it and by that alone". He continues:

It [*I*] has no value except in the instance in which it is

produced. But in the same way it is also as an instance of form that *I* must be taken; the form of *I* has no linguistic existence except in the act of speaking in which it is uttered. There is thus a combined double instance in this process: the instance of *I* as referent and the instance of discourse containing *I* as the referee.

The referent of a token of indexicals is identified only in terms of a particular instance of utterance or inscription in which the token is included, which Benveniste calls "the instance of discourse". In the cases of recorded messages, speeches in a play, post-it notes and others, the issue of what is the instance of discourse for a particular token of indexicals is not straightforward: the referent of a token should be identified through specification of the actual or presumed instance of discourse for the token. Specification of the actual instance of discourse can be done by specifying its participants and spatio-temporal location. This is the direction Perry (1997, 2001) pursues.

Sidelle (1991), Predelli (1998a, 1998b) and Corazza et al. (2002) clarify how specifying the instance of discourse for a particular token can be *deferred*, and how a complication occurs. In written communication and in some types of spoken communication made possible by recording equipment, there is a gap between the time and place in which a speaker/writer utters/inscribes something and the time and place in which a hearer/reader interprets it. Since a speaker/writer utters/inscribes something so that a particular hearer/reader can understand it, the instance of discourse in terms of which the referent of a token of indexicals is identified can be

either at the time and place in which the speaker/writer utters/ inscribes something, or at the time and place in which the hearer/ reader interprets it.

On the basis of this interpretation of indexicals, let us explain the cases of the Answering Machine Paradox in Sidelle (1991), the note to a partner in Predelli (1998a, 1998b), and the post-it note in Corazza et al. (2001).

In the case of a recorded message on an answering machine, "I am not here now", the instance of discourse in terms of which tokens of "I", "here", and "now" are interpreted is not at the time when the utterance was recorded, but at the time when the utterance is heard by a caller. A particular person who recorded the utterance, usually a resident, is indicated as the agent of a token of "I"; a particular place where the recording of the message is played, usually a house or office where the answering machine is, is indicated as the spatial location of a token of "here"; a particular time when the recorded message is heard, i.e., the time when a caller makes a call, is indicated as the temporal location of a token of "now". So the utterance informs the caller that the inhabitant who s/he is trying to call is not at the house/office where the phone is at the time of calling.

In the case of the note to a partner which Predelli (1998a, 1998b) explains, the instance of discourse in terms of which tokens of "I/my/me", "you", "home", and "now" are interpreted is neither at the time when Joe wrote the note—"As you can see I am not at home *now*. Please meet me *in six hours* in my office"—, i.e., at 8.00 AM, nor at the time when his partner actually reads the note, i.e., at 7.00 PM. It is rather at the time when Joe believed his partner would

read the note, i.e., at 5.00 PM, when she was expected home. In a case of a written note which one leaves for another, the person who inscribed the note is indicated as the agent of a token of "I/ my/me"; a person who the note was inscribed for, and actually reads it, is indicated as the agent of a token of "you"; the residence of the writer or the reader of the note is indicated as the spatial location of a token of "home"; a particular time when the note was inscribed by the writer, or is read by the reader, is indicated as the temporal location of a token of "now". What Predelli shows is that, when there is an obvious gap between the time when the intended reader actually reads the note and the time when s/he is expected to read it, the latter is the time indicated as the temporal location of a token of "now". This is because the writer wrote the note so that the intended reader would/could understand it, and the reader knows this, too. It is, therefore, that Joe's partner would interpret the time indicated by the token of "now" as 5.00 PM, and meet Joe in his office at 11.00 PM.

In the case of the post-it note Corazza et al. (2001) explain, the instance of discourse in terms of which tokens of "I", "here", and "today" are interpreted is not at the time and place where the writer inscribed the note "I am not here today", but at the time and place where the note is read by students. Since the writer's message is that he is not available on this day, the inhabitant of the office is indicated as the agent of a token of "I"; the office on whose door the note is put is indicated as the spatial location of a token of "here", and the day in which the students read the note is indicated as the temporal location of a token of "today". In normal circumstances the writer who inscribes a note and is responsible

for the content of the inscription is indicated as the agent of a token of "I", but this is not the case when Ben wrote the note of "I am not here today" for Joe. The person who is indicated as the agent of a token of "I" is not the person who actually inscribed the note and is responsible for the content of the note.

So far we have argued that the referent of a token of indexicals is identified only in term of the instance of discourse in which it is included and, when communication is deferred, as is in the case of written communication and some types of spoken communication by means of recording equipment, the instance of discourse is either the instance of the utterance or inscription of the token, or the instance of interpretation of the token. Through the explication of indexicals, we have clarified three distinct entities of communication. As Kaplan claims, there is a distinction among the utterer (speaker), the agent (addresser), and the referent of a token of "I". In a similar fashion, we can clarify three distinct entities for a token of "you", "here", and "now": the hearer, the agent (addressee), and the referent of a token of "you"; the place, the context, and the referent of "here"; the time, the context, and the referent of "now". Just as a particular utterer/speaker is identified as the agent of a token of "I", i.e., the addresser in the present instance of discourse, a particular hearer is identified as the agent of a token of "you", i.e., the addressee in the present instance of discourse. Similarly, a particular place is identified as the spatial location of the present instance of discourse, and a particular time is identified as the context of the present instance of discourse.

The next step would be to specify *how* a particular utterer

(speaker)/hearer/time/place is identified and referred to as the addresser/addressee/context of the instance of discourse. Our particular interest lies in the way a particular utterer(speaker)/ hearer is identified and referred to as the addresser/addressee of the instance of discourse, which is different from the way in which a particular person is referred to by a definite description or a proper name, as we discussed in Section 2.

If the utterance "I am I" is not a tautology, there must be two entities: one is referred to by the first token of "I", and the other is referred to by the second token. It seems that the speaker (utterer) of "I am I" refers to her/himself by one token of "I", and, by the other token, identifies her/himself as the agent, i.e., the addresser of the present instance of discourse. In the case of the utterance with the subject of "I", such as "I am not here now" and "I am your husband", the speaker (utterer) refers to her/himself as the agent of the token of "I", i.e., the addresser. Since the utterer is indicated and referred to as the addresser without any description of her/ him, the utterer her/himself as the addresser is highlighted. In the case of the second-person pronoun "you", a particular hearer is indicated and referred to as the agent of a token of "you", i.e., the addressee of the present instance of discourse, and the hearer her/ himself as the addressee is highlighted.

This interpretation is compatible with the analysis of the conversation exchange discussed in Section 2, which we have here again:

(17) J: Am I your husband?
L: (a long pause) Yes, you are.

J: Thank you.

In the first utterance in (17), "Am I your husband?", a particular speaker (utterer) identifies himself as the agent of a token of "I", i.e., the addresser of the present instance of discourse, and queries if he is the husband of the hearer, who is identified as the agent of a token of "your", i.e., the addressee of the present instance of discourse. In the second utterance, "Yes, you are", the hearer is identified as the agent of a token of "you", and the speaker (utterer) affirms that the hearer is her husband. Since the utterer(speaker)/hearer is indicated and referred to as the addresser/addressee of the present instance of discourse, not as a person who has a particular name or features, the utterer(speaker)/ hearer him/herself as the addresser/addressee is highlighted, and the first utterer (speaker) is identified as the husband of the second utterer (speaker).

Let us examine again the distinction among the sentences with an indexical, a proper name, and a definite description in the subject position.

(18)a.   I am Laurel's husband.

b.   Horace Townsend is Laurel's husband.

c.   The man charged with murder is Laurel's husband.

In (18a), the utterer(speaker) refers to himself as the addresser of the present instance of discourse, and asserts that he is the husband of a particular individual, who is a bearer of the name Laurel. In (18b), the utterer(speaker) refers to a particular

individual, who is a bearer of the name Horace Townsend, and asserts that he is the husband of a particular individual, who is a bearer of the name Laurel. In (18c), when taken referentially, the utterer(speaker) refers to a particular individual, who is charged with murder, and asserts that he is the husband of a particular individual, who is a bearer of the name Laurel. Although the referents of "I", "Horace Townsend", and "the man charged with murder" can be the same person, each way of identifying and referring to the person is quite distinctive.

When the utterer(speaker) refers to himself by a token of "I", what the speaker recognizes as himself, that is, as the addresser, seems to be highlighted, and, in an utterance like (18a), there typically occurs the identification of himself, say, as the husband of a particular individual, who is a bearer of the name Laurel. In (18b) and (18c), on the other hand, the speaker refers to an individual in the world, and makes a different type of an identity claim. In (18b), the speaker claims that the person who is a bearer of the name Horace Townsend and the husband of a bearer of the name Laurel are one and the same person. In (18c), the speaker claims that the person who is described as a man charged with murder is identified as the husband of a bearer of the name Laurel.

These differences in the interpretation of "I", "Horace Townsend", and "the man charged with murder" affect the interpretation of the utterances. The utterance "I am Laurel's husband" in (18a) means that what the speaker recognizes as himself is identified as the husband of a particular person, who is a bearer of the name Laurel; the sense of the "husband" can be either an official husband or a husband in a spiritual sense. In

the instance of discourse specified in the movie *Sommersby*, the utterance is affirmed true and we also feel it is true: the relationship between the utterer(speaker) and Laurel is such that the former is the latter's husband in a spiritual sense.

The utterance "Horace Townsend is Laurel's husband" in (18b) means that two individuals, a bearer of the name Horace Townsend and the husband of a bearer of the name Laurel are one and the same person. In the circumstances specified by the movie *Sommersby*, the utterance is probably false because Horace Townsend is not married to Laurel. Interpreting the word "husband" in the sense of a spiritual husband is more difficult than interpreting "husband" in "I am Laura's husband" in the sense of a spiritual husband because this is an identify claim of Horace Townsend and Laurel's husband.

The utterance "The man charged with murder is Laurel's husband" in (18c) means that the person who is described as a man charged with murder is identified as the husband of a bearer of the name Laurel. In the circumstances specified by the movie *Sommersby*, the utterance is probably false because this person is not married to Laurel. Interpreting the word "husband" in the sense of a spiritual husband is much more difficult because the description of "the man charged with murder" does not imply anything unique about this person which qualifies him to be Laura's husband in a spiritual sense.

This analysis can be extended to the indexical "you". In using "you", the utterer (speaker) refers to the hearer as the agent of a token of "you", i.e., the addressee of the present instance of discourse, where the hearer her/himself as the addressee is

highlighted. Let us show this using the following example:

(19) You are my son.

This utterance comes from the movie *Blood Diamond*, where a Sierra Leonean man, Solomon, is trying to rescue his young son, Dia, who has been abducted by rebels and brainwashed to be a rebel fighter. Dia does not recognize his father. Desperately trying to get him back from the rebel fighters, Solomon says utterance (19) to his son to remind him what he is. This utterance can be interpreted as the case in which the utterer (speaker) refers to the hearer as the addressee of the present instance of discourse, and identifies him as the son of the speaker. This meaning, i.e., somone is identified as the son of the speaker in the present instance of discourse, is not expressed by equivalent sentences with a co-referring proper name or a co-referring definite description:

(20) a.   Dia is my son.
   b.   One of the rebel fighters is my son.

In (20a), the utterer (speaker) claims that the person who is a bearer of the name Dia and the son of the speaker are the same person. In (20b), the utterer (speaker) claims that the person who is described as a rebel fighter is identified as the son of the speaker.

This analysis is compatible with the analysis of the so-called "generic" use of a token of "I". As the following example shows, what the utterer (speaker) states is not only applicable to this

utterer (speaker) but also to other people in her/his position, i.e., prisoners awaiting capital punishment. This might show that the utterer (speaker) her/himself is not highlighted:

(21)   Condemned prisoner: I am traditionally allowed to order whatever I like for my last meal. (Nunberg 1993: 20)

This utterance, however, can be analyzed in the way in which the utterer (speaker) her/himself is highlighted: the utterer (speaker) refers to her/himself as the addresser of the present instance of discourse about prisoners' rights, and states that, because of what s/he is, s/he can order whatever s/he likes for her/his last meal. The main difference between the generic utterance in (21) and those in (17) and (19) is the uniqueness level of the utterer (speaker) and the hearer. In the utterances in (17) and (18), the utterer (speaker), the hearer, and the relationship between them are such that the statement is true and the utterance makes sense in the present instance of discourse. In (21), on the other hand, the uniqueness of the utterer (speaker) which allows her/him to be the addresser of the present instance of discourse is her/his being a condemned prisoner awaiting capital punishment, and, therefore, the utterer (speaker) makes a statement which is not only true in the present instance of discourse but also in other instances of discourse in which a prisoner in the same situation makes an equivalent claim about her/himself.

5. Conclusion
We have analyzed indexicals and clarified how contents

of indexicals are expressed by extending Kaplan's analysis of indexicals and adopting Benveniste's analysis of deixis. We have also explained how the use of an indexical affects the interpretation of the utterance which includes it.

We start with the idea that seemingly equivalent utterances with a personal pronoun, a proper name, and a definite description, which are co-referential, do not seem to express the same meaning. We clarify this using a short conversational exchange from the movie *Sommersby*. We try to find the source of this discrepancy by characterizing the contents of indexicals, and clarifying how they are expressed. Following Kaplan and Corazza et al., three entities for indexicals are distinguished: (i) the utterer (the speaker)/the hearer/place/time, (ii) the agent (the addresser)/ the addressee/context, and (iii) the referent of a token. Adopting Benveniste's idea that a token of each indexical is identified only in terms of the instance of discourse in which it is included, we claim that, by a token of "I" or "you", the utterer (speaker) refers to what s/he recognizes as her/himself or as the hearer in the present instance of discourse. This affects the interpretation of a sentence with "I" or "you" in the subject position, in which the utterer (speaker) or the hearer is identified and described in the present instance of discourse. This makes the meaning of the utterance unique.

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