Demonstrative reference is the mechanism that connects us, as conscious beings, to the world we encounter. Aristotle, Kant and Hegel recognized the role of demonstrative reference as the grain of truth in empiricism; and demonstrative reference is at the heart of Descartes’ Cogito. Recently, attention has been given to the significance of demonstrative reference for language and perceptual beliefs.¹

I shall emphasize the role of demonstrative reference in our understanding of self-consciousness. In order to think of oneself as a self who faces a world, one must be able to make demonstrative reference. In order to think of others as selves, one must be able to attribute demonstrative reference to them. Here I study both the indexical mechanism for making demonstrative reference and the quasi-indexical mechanism for attributing demonstrative reference to others. Ultimately, I connect these largely linguistic investigations to broader topics in metaphysics and the philosophy of mind. Part I is an examination and critique of several views of indicators in indirect discourse; Part II is a discussion of quasi-indexical reference; Part III is a critical assessment of the Castañeda–Hintikka debate on the irreducibility of quasi-indicators; Part IV is an argument linking the capacity to make first-person demonstrative reference to self-consciousness.

I. INDICATORS IN INDIRECT DISCOURSE

1. Data. The indicator words ‘I’, ‘now’, ‘here’, ‘that’, etc. are devices in English for making purely demonstrative reference. The concern here is with indicators which appear within the scope of a cognitive or linguistic verb, such as ‘says’, ‘asserts’, ‘knows’, ‘believes’, ‘surmises’, ‘infers’, etc. The first to draw attention to the peculiarities of indexical or demonstrative reference in indirect discourse was H.-N. Castañeda. Castañeda’s theoretical claims, which have been confined largely to special issues such as the irreducibility of quasi-indicators, do not
amount to a fully formulated theory. Nonetheless, the rich collection of data contained in Castañeda’s papers makes it appropriate to introduce the topic through the use of his material.

Two kinds of reference in indirect discourse must be distinguished sharply at the outset. Suppose that Jake asserts of Paul,²

(1) Paul knows that he (himself) is happy.

Then, the ‘he (himself)’ refers to Paul, not directly, but through referring back to the expression ‘Paul’; having an antecedent in the immediate context, ‘he (himself)’ is not an indicator but a quasi-indicator, which will be indicated hereafter by ‘he*’. In (1), the speaker, Jake, attributes self-knowledge, in either an occurrent or a dispositional sense, to another person, Paul; and the indexical reference belongs not to the speaker, but to Paul, the person to whom self-knowledge is ascribed: Paul would express indexically the statement Jake attributes to him by ‘I am happy’. Quasi-indicators, especially ‘he*’, will be treated in subsequent sections.

Now suppose that Jake asserts, in contrast to (1),

(2) Paul knows that I am happy.

In this case, ‘I’, having no antecedent in the immediate context, is an indicator. The utterance of (2) expresses indexical reference on the part of the speaker, Jake, and not on the part of Paul; for all we know from (2), Paul may express his knowledge non-indexically, by, e.g., ‘Jake is happy’. However Paul refers to Jake, it cannot be by means of the indicator ‘I’.

In sum, we have the following characteristics of indexical reference in indirect discourse:³

(i) Indexical reference in indirect discourse is made by the speaker, not by the person to whom knowledge, belief, conjecture, etc., is attributed. E.g., unlike the quasi-indexical reference of (1), (2) expresses indexical reference by Jake, not by Paul. An indicator always has largest scope in any sentence containing it.

(ii) Except in cases of self-knowledge, self-belief, etc., which call for special treatment in terms of quasi-indicators, the indicator does not reveal how the person to whom knowledge, etc., is attributed
designates the person referred to indexically. E.g., in (2), it is unspecified how Paul refers to Jake.

(iii) Indicators in indirect discourse, like all genuine indicators, have no antecedents in the immediate discourse. E.g., 'I' in (2), unlike the quasi-indicator 'he (himself)' in (1), lacks an antecedent in the context.

2. From non-perspectival to perspectival analysis. To accommodate these data, Castañeda offers two analyses, a non-perspectival analysis first, which leads to a perspectival analysis of indicators in indirect discourse. The non-perspectival analysis involves properties without specifying the point of view from which they are conceived, so that on it we cannot distinguish between the property of being the man Paul met on the elevator (a property considered from a third-person perspective), and the property of being the man I met on the elevator (the same property considered from Paul's first-person perspective). The perspectival analysis, by contrast, accommodates the point of view of the person conceiving the property.

A major aim of both analyses is to show that indicators in indirect discourse can be removed from the scope of the cognitive or linguistic verb. If successful, these analyses show that indicators in indirect discourse ultimately may be understood in terms of indicators in direct discourse. In pursuit of this claim, let us seek appropriate analyses of (2).

Since the expression which Paul uses to refer to Jake is unspecified in (2), we do not know from (2) what proposition Jake thinks that Paul takes to be true; the indicator in (2) represents Jake’s, not Paul’s, reference. This suggests the following non-perspectival analysis of (2);

\[(2N) \text{ There is a property } \phi \text{ such that: (i) I am the only person who is } \phi, \text{ and (ii) Paul believes that the only person who is } \phi \text{ is happy}, \]

where \(\phi\) is a property which enables Paul to pick out or identify Jake in some relevant respect. Since Castañeda holds that both names and descriptions attribute properties, (2N) is a non-perspectival analysis of (2) provided that the speaker, Jake, wants to attribute to Paul reference to himself (Jake) by names or descriptions, indexical or not.\(^4\)
Although (2N) may be the correct non-perspectival analysis of (2), in non-extensional contexts properties do not merely enter as neutral properties but rather as properties conceived by somebody. For example, say that Paul has expressed his knowledge of Jake by saying, “The person there watching himself in the mirror now is happy.” From Paul’s point of view, there would be the perspectival property, or *property* (italicized), of being a person watching himself there in the mirror now; from Jake’s point of view, there would be the *property* of being a person here watching myself in the mirror now; from the point of view of somebody considering the property in indirect discourse, there would be the property of being a person there* watching himself in the mirror then*.

The schematic formulation of the perspectival analysis of (2) requires additional terminology. Let $\phi_p$ be a perspectival property from Paul’s point of view, by means of which he identifies Jake – e.g., $\phi_p$ may be the *property* of being a person there watching himself in the mirror now. Let ‘$\phi_{pI}$’ be the name of the *property* formed by replacing the indicators in the linguistic formulation of $\phi_p$ with expressions which Jake could use of the same occasion to refer to himself – e.g., $\phi_{pI}$ may be the *property* of being a person here watching myself in the mirror now. Now let ‘$\phi_{*p}$’ be the name of a *property* formed by replacing each indicator in an expression formulating $\phi_p$ by its third-person quasi-indicator, so that $\phi_{*p}$ is somebody’s way of considering *property* $\phi_p$ in indirect discourse – e.g., $\phi_{*p}$ may be the property of being a person there* watching himself in the mirror then*. *Property* $\phi_{*p}$ is a permanent and intersubjective version of $\phi_p$, so that anyone at any time can refer to $\phi_{*p}$. Now the perspectival analysis of (2) in terms of properties is (2P):

(2P) There is a perspectival property $\phi_p$ such that (i) I am the only person who is $\phi_{pI}$, and (ii) Paul believes that the only person who is $\phi_{*p}$ is happy.

Although (2P) contains quasi-indicators in indirect discourse (‘there*’ and ‘then*’), the only genuine indicator in (2P), as well as in (2N), occurs in direct discourse. In general, the user of ‘I’ can eliminate for himself all tokens of ‘I’ except those occurring in direct discourse and those in indirect discourse subordinated only to prefixes of the form ‘I know (etc.) that . . .’.
Castañeda is clearly committed to quantification over properties. Any objectionable ontological commitment can be minimized, of course, by treating properties as predicates. Moreover, second-order logic has been ably defended by George Boolos, who emphasizes the continuity of first- and second-order logic as well as the superior capacity of second-order logic to express important logical notions. For those who remain uncomfortable with explicit quantification over properties (or predicates), however, there is the alternative of trying to provide an extensional account of the data discussed in 1.

3. Extensional approaches to indicators in indirect discourse. Several philosophers have offered extensional treatments of indicators in indirect discourse. Consider, for example, Donald Davidson’s extensional analysis of sentences in indirect discourse as consisting of “an expression referring to a speaker, the two-place predicate ‘said’, and a demonstrative referring to an utterance. Period.” In a well-known example, Davidson holds that

(3) Galileo said that the earth moves

should be analyzed as

(3a) Galileo said that: the earth moves.

Consider the following variation on (2):

(4) Paul said that I am happy,

as asserted by Jake. Clearly, (4) cannot be replaced by

(4a) Paul said that: I am happy.

For unlike (4), (4a) attributes self-reference to Paul. Quine has suggested, regarding Davidson’s example in (3), that ‘the earth’ be given referential position, as in

(5) Galileo said of the earth that it moves.

which in turn becomes, on Davidson’s analysis,
(5a) Galileo said of the earth that: it moves.

This suggests the following analysis of (4):

(4b) Paul said of me that: _______ is happy.

Temin argues for an analysis of sentences of indirect discourse by means of open sentences like (4b). Aiming to show that it is sometimes legitimate to quantify into sentences in indirect discourse, Temin would hold that the ‘me’ in (4b) is referentially transparent, and that the inference from (4b) to

(4c) (Ex) (Paul said of x that:) _______ is happy.

is valid.9

There are some difficulties in analyzing (4) and (4b). This point may be illustrated by means of Donnellan’s distinction between referential and attributive uses of definite descriptions.10 Consider an attributive use of ‘the murderer of Jones’: Say that Paul, not knowing who murdered Jones, says to Jake, Paul’s next-door neighbor,

(4d) The murderer of Jones is happy.

Later, Jake, who happens to be the murderer of Jones, says,

(4) Paul said that I am happy.

Jake’s assertion of (4) in these circumstances may be viewed in either of two ways; in neither way is (4b) an adequate rendering of (4). On the one hand, since Paul does not know who murdered Jones although he knows Jake well, Jake’s assertion badly misrepresents Paul’s statement of (4d). Thus, we may take (4) to be false, as asserted by Jake in these circumstances; (4) is not true unless Paul in some relevant sense can identify the person to whom he attributes happiness.11 But (4b), when completed by Jake on the basis of Paul’s assertion of (4d), would be true: in an attributive use of a definite description, as in (4d), the important feature is that the speaker is talking about whoever fits the description—regardless of the speaker’s knowledge of the identity of the person to whom the description
applies. But if there are circumstances in which (4) is false when (4b) is true, then (4b) is not equivalent to (4).

On the other hand, we may follow an example by Burge, and take Jake’s assertion of (4) on the basis of (4d) to be true. In this case, the demonstrative pronoun ‘I’ in (4) is not purely deictic. Rather, it functions at least partly as a pronoun of laziness for the description ‘the murder of Jones’. But now (4b) is an even less likely candidate as an analysis of (4). For (4b) relates Paul both to Jake and to an open sentence; but if the ‘I’ in (4) is taken to be a pronoun of laziness for ‘the murder of Jones’, then (4) should be treated in a way which relates Paul to a closed sentence—viz., to ‘The murderer of Jones is happy’. Thus, an analysis which relates Paul to an object and an open sentence cannot be satisfactory. Moreover, the expedient of taking the ‘I’ in (4) to be anaphoric has the effect of disqualifying (4) as an example of an indicator in indirect discourse; by (liii), an indicator is used deictically. No analysis of (4) in which the ‘I’ is taken anaphorically would be an analysis of an indicator in indirect discourse.

Thus, indicators in indirect discourse do not appear to be susceptible to purely extensional treatment.

II. QUASI-INDICATORS

1. Data. Sentences containing indicators normally express an indexical reference made by the speaker of the sentence. But as indicated in

(1) Paul knows that he (himself) is happy,

we also have a referring mechanism to express indexical reference, not made by the speaker of the sentence, but attributed to someone else by the speaker. The expressions in indirect discourse which attribute demonstrative reference—e.g., self-knowledge, self-belief, etc.—to someone other than the speaker are called, again, quasi-indicators. Consider, for instance,

(6) The heir of Midas knows that he* is a millionaire.

In (6), ‘he*’ is a quasi-indicator, by means of which the speaker of (6)
attributes self-knowledge to the heir of Midas. The content of the heir’s knowledge is expressed in the subordinate clause, ‘he* is a millionaire’, where ‘he*’ refers back to ‘the heir of Midas’. This clause implicitly attributes first-person indexical reference to the heir; for it expresses the proposition which the heir would express if he asserted:

(6a) I am a millionaire.

A necessary condition for the correct attribution of self-knowledge to a person S, as in (6), is that S be able to make first-person reference to himself. Furthermore, the speaker of (6) ascribes to the heir no other way of referring to himself in addition to the first-person indicator or the ability to be conscious of himself.13

(6) and (6a) illustrate features of quasi-indicators which distinguish them from indicators: (i) Quasi-indicators occur only in indirect discourse; the quasi-indicator ‘he*’ is the counterpart of the first-person indicator ‘I’ in direct discourse. (ii) Quasi-indicators have antecedents in the immediate context, but outside the scope of the cognitive or linguistic verb of the indirect discourse. (iii) Sentences containing the quasi-indicators ‘he*’ or ‘then*’ may be used by different people on different occasions to express the same proposition. It might be noted that there are limits to such free repeatability in cases of sentences containing quasi-indexical occurrences of ‘you*’ or ‘I*’. For example, although

(6b) You know that you* are a millionaire

can be used by different people to express the same proposition on different occasions, it can also be used to express different propositions if it is addressed to different hearers. And

(6c) I know that I* am a millionaire

is never used by different people to express the same proposition. Indeed, because it contains the first-person indicator ‘I’ explicitly, (6c) behaves more like (6a) than it behaves like (6). It is with sentences like (6), however, and their relations with other sentences that we are primarily concerned.14
2. Intensional ambiguity. One writer, Gerald Stahl,\(^{15}\) has called the sentence in (6) a case of intensional ambiguity, which he distinguishes from two other kinds of ambiguity to which indicators are susceptible. But intensional ambiguity is somewhat different from the two other kinds of ambiguity—pragmatic and syntactical—which Stahl cites. Stahl is concerned with the question of with what name or description the (quasi-) indicator is to be replaced in order to translate it into a symbolic language lacking indicators. ‘You are a happy woman’ is pragmatically ambiguous, in that we need further information in order to replace the indicator ‘you’ with a name or description of the person being designated. ‘John found Peter, whose wife had called him by phone, in a very sad mood’ is a case of syntactical ambiguity; the syntax does not make clear whether the ‘him’ refers to John or Peter. Our sentence (6) is a case of intensional ambiguity in that, for purposes of regimentation, we cannot replace the pronoun with a name or description unless we know some name or description by which the person who is the heir of Midas refers to himself.

But there is an important dissimilarity between (6) and the other cases of ambiguity, a dissimilarity which Stahl overlooks. In the cases of pragmatic and syntactical ambiguity, what is in question is which person is being designated. In the case of intensional ambiguity, there is no question of who is being designated—in (6) ‘he\(^*\)' clearly designates the heir of Midas—but rather the question is how he refers to himself. Moreover, all we are entitled to infer from (6) is that the heir of Midas refers to himself in the first person. The requirements of regimentation notwithstanding, the replacement of ‘he\(^*\)' in (6) with any name or description of the heir will issue in a statement different from the one expressed in (6).

3. Problems of analysis of quasi-indexical reference. Indeed, the question of replacing ‘he\(^*\)' in (6) is of paramount importance. For the problem of the logic of attribution of self-knowledge to others is the problem of the logic of ‘he\(^*\)', and the latter in turn is the question of whether ‘he\(^*\)' can be analyzed in terms of quantification, descriptions, names or indicators which do not contain quasi-indicators. I shall argue, as Castañeda does, that the quasi-indicators form a unique logical category.
Unlike the indicators, the quasi-indicators have antecedents, but they cannot be replaced by their antecedents *salva propositione*. Consider, for example,

(7) The heir of Midas knows that the heir of Midas is a millionaire.

(6) and (7) clearly are not equivalent. (6) may be true and (7) false: S, who in fact is the heir of Midas, may know that he* is a millionaire without knowing that the heir of Midas is a millionaire. Conversely, (7) may be true and (6) false: S may know that the heir of Midas is a millionaire without knowing that he* is the heir of Midas. Similar arguments show that no name or description without an occurrence of ‘he*’ can be substituted for ‘he*’ in (6) *salva propositione*. Let ‘the only person who is φ’ be any definite description of the heir of Midas which contains no occurrence of ‘he*’. Then

(8) The heir of Midas knows that the only person who is φ is a millionaire

clearly may differ in truth value from (6).\(^{16}\)

Surprisingly, quasi-indicators cannot be replaced by any indicators *salva propositione*. Consider

(9) The heir of Midas knows that he (= this man [with a demonstrative pointing to the heir of Midas]) is a millionaire.

where ‘he’ is used demonstratively, not quasi-indexically. Regarding an example similar to (9), Castañeda has argued that the heir may not know that he* is the person he is demonstratively designating, in which case (6) may be true and (9) false.\(^{17}\) Ernest Sosa has objected, correctly, I think, to this line of argument. The fact that the heir does not know that he is the person being demonstratively designated, Sosa maintains, is irrelevant to the truth of (9).\(^ {18}\) However, the converse case does show that (6) and (9) do not express the same proposition: the heir of Midas may know that the person being designated demonstratively is a millionaire, in which case (9) would be true, without knowing that he* was the person being designated demonstratively, in which case (6) could be false.\(^ {19}\)
Even if 'he*' cannot be replaced by a name, description or indicator not containing quasi-indicators, perhaps sentences containing 'he*' can be analyzed through another kind of construction altogether. For example, can (6) be represented as

(10) The heir of Midas knows of himself that he is a millionaire

*salva propositione? If so, can (10) be analyzed further? As it stands, there is an ambiguity in (10), which may be read either as

(10a) The heir of Midas knows of (someone who is in point of fact) himself that he is a millionaire,

or as

(10b) The heir of Midas knows of himself that he* is a millionaire.

In (10b), the occurrence of 'of himself' is redundant, so that (10b) simply is (6). In this case, the occurrence of 'he' in (10), read as (10b), is an occurrence of the quasi-indicator 'he*', and 'he*' remains unanalyzable. So we are led to read (10) as (10a), and (10a) appears to be analyzable as

(11) There is a way of referring univocally to the heir of Midas as Z and the heir or Midas knows that Z is a millionaire.

We still do not have an analysis of (6), however; for (10a) and (11) may be true while (6) is false. For example, the heir may know that the million-dollar lottery winner held a certain number without knowing that that number was his number. In this case, the heir of Midas would know of (someone who is in point of fact) himself that he is a millionaire, as in (10a), without knowing that he* is a millionaire. In (11), Z may be a definite description of the holder of the winning lottery ticket, so that the heir knows that Z is a millionaire without knowing that Z is himself. Thus, neither (10a) nor (11) is equivalent to (6).

4. Chisholm on quasi-indexical reference. Chisholm has proposed a
scheme to define reports of self-attribution. The * indicator, which I add to the definiendum, indicates that (D) should be read analogously to (10b), as an attribution of genuine self-belief.

\[(D) \quad S \text{ believes himself* to be } F = \text{df. There is a } C \text{ such that } C \text{ is an individual essence of } S; \text{ and } S \text{ accepts a proposition which entails the conjunction of } C \text{ and the property of being } F.\]

For Chisholm a proposition, \(p\), entails a property, \(F\), if and only if \(p\) is necessarily such that, if true, then something has \(F\), and whoever accepts \(p\) believes that something has \(F\). For example, the proposition that some apples are red entails the properties of being an apple and being red. An individual essence \(C\) is a property such that, for any \(x\), \(x\) has \(C\) if and only if \(x\) necessarily has \(C\) and nothing other than \(x\) can possibly have \(C\).²⁰

Questions immediately arise concerning the concept of an individual essence. Is it possible, for example, for \(S\) to accept a proposition which entails the conjunction of \(C\) (an individual essence of \(S\)) and the property of being \(F\), without \(S\)'s knowing that \(C\) is an individual essence of himself? If so, then even with Chisholm's strong sense of entailment, \(S\) could believe that something has both a property which is in fact his individual essence and the property \(F\), without believing that he* has the property \(F\). Harman has offered an objection to (D) based on this construal of an individual essence.²¹ If Mary reads lines on a hand without realizing that the hand is her own, she may believe that this person is wise. Then, Mary may have an individual essence which is not aware of having—viz., the property of being identical with this person; in this case, Mary may accept a proposition which entails the conjunction of the property of being identical with this person and the property of being wise, without believing that she* is wise.

But Chisholm is not susceptible to this kind of counter-example if he has a more restricted concept of an individual essence. Indeed, Chisholm would take an individual essence of me to be the first-person property of being me, or being identical with myself. For example, the proposition that I feel depressed implies the property of being me, which is my individual essence.²² Moreover, Chisholm holds not only that each person knows propositions implying his own
individual essence, but also that no one can know propositions implying anyone else’s individual essence. Harman’s case seems ruled out here for the following reason: As an individual essence of Mary, Harman cites the third-person property of being identical with this person. But any number of people can know propositions implying the property of being identical with this person when ‘this person’ refers to Mary. So the property of being identical with this person cannot qualify as an individual essence of Mary and cannot be used as a counter-example to (D). Thus, I think that Chisholm would say that it is impossible for S to accept a proposition which entails an individual essence of himself, C, without S’s knowing that C is an individual essence of himself.

Although Chisholm can avoid Harman’s falsifying counter-example of (D), he can do so only at the expense of another defect. Consider the following: By taking as an individual essence of me the property of being me, Chisholm builds the appropriate first-person perspective into (D). But (D) is a third-person statement. The only third-person way we have to talk about S’s individual essence, C – which from S’s point of view is the property of being me – is to take S’s individual essence to be the property of being himself*. Again, the ‘*’ indicates that the property in question is not simply the property of being identical with itself, but rather the indexical property derivative from S’s first-person self-conscious perspective. The property in question, which we can only talk about quasi-indexically, is a first-person property which S would see as the property of being me. Thus, (D) is partially instantiated as

\[(D') \quad S \text{ believes himself}^* \text{ to be } F = \text{df. There is a property of being himself}^* \text{ such that being himself}^* \text{ is an individual essence of } S; \text{ and } S \text{ accepts a proposition which entails the conjunction of the properties of being himself}^* \text{ and being } F.\]

As a definition of the quasi-indicator, (D') would fail, since there are quasi-indexical references in the definiens. However, rather than defining ‘himself*’ contextually, Chisholm may be defining the locution ‘believes himself* to be’ as a whole. (This possibility was suggested to me by Castañeda.) In either case, (D') is syntactically untenable. Since quasi-indicators can only appear within the scope of a
cognitive or linguistic verb, "There is a property of being himself*. . . .", which appears in (D'), is not well-formed. Quasi-indicators do not express quasi-indexical properties over and above the attribution of indexical properties. Thus there can be no quasi-indexical properties such as being himself*.

There is no way to reformulate (D') so that it is both syntactically correct and true. Clearly, 'being himself*' cannot be replaced by 'being me': We who are not S cannot speak of S's first-person property as being me. As we saw in Part I, indicators express the indexical references of the speaker; thus, for me to say that S accepts a proposition entailing the property of being me is to suggest that S is very confused about his identity, that he thinks that he* is I. Thus, it appears that quasi-indexical reference remains unanalyzable.

5. Temin and Wallace. Without specifically mentioning quasi-indicators, Temin shows Davidson's analysis to be as unable to accommodate quasi-indicators as we found it to be unable to accommodate indicators in indirect discourse. 23

(12) Galileo said that he was Italian

clearly cannot be rendered as

(13) Galileo said that: he was Italian.

Reports of what someone other than the speaker said about himself simply do not seem amenable to Davidson's extensional analysis, and it appears that Davidson is incorrect insofar as he holds that "an utterance of 'Galileo said that' and any utterance following it are semantically independent". 24

Temin attributes to (12) the form

(14) Galileo said of himself that: ______ is Italian.

This treatment of (12) suggests another candidate for the analysis of (6):

(15) The heir of Midas knows of himself that: ______ is a millionaire.
Regarding the quasi-indexical reference, however, (15) seems to be no improvement over (10). The heir could know of someone, whom he describes as Z who happens to be the heir, that he is a millionaire, without knowing that Z is himself. Since (15) need not express self-knowledge at all, it is not equivalent to (6).

The above discussion of the unanalyzability of (6) has an interesting bearing on discussions of the relational and notional senses of belief. Both John Wallace and Temin entertain the possibility that the notional sense of belief (belief that) may be a special case of the relational sense of belief (belief of). One of the observations made by Wallace in this regard is that "...it appears to be impossible to capture notionally the idea that Nelson believes of himself that he has the ability to perform the contemplated action [of lighting a match]."25 Wallace's point here is not quite right. For if we take Nelson's self-belief to be relational in the obvious way, it retains the same ambiguity as (10): Read analogously to (10b), the 'of himself' is simply redundant, and the 'he' is the quasi-indicator 'he*'; read analogously to (10a) as Wallace reads it, the sentence does not capture genuine self-belief. That Wallace drops the quasi-indexical element in his relational characterization of attributions of self-belief can be seen more easily in his claim that

(16) Mary believes that she can sing

can be "naturally represented" as

(17) Believes (Mary, ⟨Mary⟩, x [x can sing]),

which may be read as 'Mary believes of Mary that she can sing'.26 But clearly, (17) is as unsatisfactory a rendering of (16) as (10a) is of (6).

What is wrong with Wallace's treatment is not that it takes attributions of self-belief to be relational, but rather that it eliminates the quasi-indexical reference. Indeed, attributions of self-belief may well be represented as relational (de re) belief, provided that the unanalyzability of 'he*' is preserved. For example, the addition of 'he*' and 'she*' as primitives to Burge's theoretical vocabulary in 'Belief De Re' would allow Burge to accommodate (16) and missing from (17).27
Several writers have suggested that statements containing ‘he*’ may be analyzed by means of existential quantification. Although Hintikka has mounted the most sustained attack along these lines, Sosa too has proposed an analysis of ‘he*’ by means of the existential quantifier. Sosa has suggested that

(18) The spy knows that he* killed the guard

may be analyzed as

(19) There is a person such that the spy knows that he (the person) killed the guard, and that person is none other than the spy himself.

Sosa points out that in (19) the ‘he’ is not ‘he*’; rather it functions as a variable referring back to the indefinite description. But clearly (19) is not an adequate analysis of (18): The spy may know that a certain person killed the guard, and in fact that person may be none other than the spy himself, without the spy’s knowing that he* killed the guard. My argument here will be buttressed by the discussion of Hintikka’s approach below.

To bring out the difficulties of capturing ‘he*’ in existential quantification, Castañeda constructs a fantastic example: A man (call him Quintus) is brought unconscious to a military tent in the heat of battle. When he regains consciousness, he suffers from amnesia, goes back into battle and becomes a war hero. Subsequently, he forgets his entire participation in the war. After the war, Quintus takes an interest in the exploits of the famous hero and discovers that the hero was the only person to be wounded 100 times. Fascinated with the hero, Quintus writes his authoritative biography.

Granting that there are different and shifting criteria for identifying a person, or knowing who a person is, Castañeda concludes that for most situations, “Quintus knows who the hero was much better than most people, even though Quintus does not know that he* is the war hero”. Letting ‘h’ be an abbreviation of a definite description of a person such as ‘the war hero wounded 100 times’, we can generalize
Castañeda's conclusions as follows:

(20) \( h \) knows that \( \text{he}^* \) is \( h \)

is not entailed by, and hence not equivalent to, any of the following:

(21) \( h \) knows who \( h \) is

(22) there exists a person known by \( h \) to be identical with \( h \)

(23) There exists a person identical with \( h \) and that person is known by \( h \) to be identical with \( h \).

Yet, (20), (21), and (22) are all formulated in Hintikka's logic at first in the same way, namely as:

(24) \((\exists x) \, K_h(x = h)\).

Although Hintikka suggests

(25) \((\exists x) \, [(x = h \& K_h(x = h)]\)

as a more natural translation of (20), he notes both that (25) entails (24), and that (23) would also be symbolized as (25). But it is unsatisfactory to symbolize both (20) and (23) as (25), since in ordinary discourse (23) does not appear to entail (20).

To solve this difficulty, Hintikka seeks to mark the difference between (20) and (21) in his system by the introduction of different quantifiers. He uses \((\exists x)\) and \((\forall x)\) in the intended translation (24) of (21), and the quantifiers \((\exists x)\) and \((\forall x)\) in the translations

(26) \((\exists X)K_h(x = h)\)

or

(27) \((\exists x) \, [(x = h \& K_h(x = h)]\)

of (20). What determines the sense of one's quantifiers are the methods of cross-identification, i.e., individuation. The difference
between (Ex) and (∃x) hinges on different criteria for knowing who a person is. In one straightforward sense, Hintikka concedes, the war hero indeed knows who he is: he knows many facts of the war hero’s life, many things which would appear on the war hero’s curriculum vitae.

However, there ia another sense in which Quintus does not know who the hero is. Quintus cannot place the hero in his own Lebenswelt; he cannot recognize the person in his experience. These deficiencies of knowledge lead Hintikka to another criterion for knowing who a person is. In the second and stronger sense, “a knows who b is if and only if a can place b within the range of his personal cognitive experience,” in other words, if he is “…acquainted with b.” The quantifier in (26) is to be based on methods of cross-identification which involve the knower’s cognitive situation, and expressions of the form of (26) are to be understood in the second sense of knowing who a person is. The second sense of ‘knowing who’ is connected with the ability to make demonstrative reference to the person, and thus the new contextual quantifiers are to range over persons (or more generally, objects) which a given person can place in his Lebenswelt. The condition for a person P to be the value of a contextually quantified variable – such that P is in the Lebenswelt of some subject S – might be this: If S perceives P at t, and S knows at t that P is F, then S can demonstratively identify P as one person whom he knows to be F. Hintikka suggests, in analogy to Russell’s knowledge by acquaintance, that we speak of “individuation by acquaintance” in connection with the new quantifiers, (∃x) and (∀x).

Hintikka renders ‘a knowingly knows b’ as

\[(28) \quad (\exists x)K_a(x = b)\]

and ‘a knows who b is’ in the sense intended by Castañeda in the example about the war hero as

\[(29) \quad (Ex)K_a(x = b).\]

Following this line, (21) is to be translated primarily as (24), as Castañeda’s example suggests, though perhaps in some cases as (26). Since ‘he*’ is the counterpart in indirect discourse of the first-person indicator ‘I’, the correct use of ‘he*’ depends on the personal frame of
reference of the person ‘he*’ refers to. And this in turn means that the appropriate quantifier for the translation of (20), which contains an occurrence of ‘he*’, must be (∃x). On the other hand, (21) simply points up the ambiguity of quantifiers in epistemic contexts.

In having to introduce new kinds of quantifiers in epistemic contexts to accommodate occurrences of ‘he*’, Hintikka in effect concedes that ‘he*’ is unanalyzable in the sense Castañeda intended. But even with his new quantifiers, it is not clear that Hintikka has succeeded. In the first place, Hintikka maintains that Quintus, not realizing that he* is the war hero, cannot know much about the hero’s physical appearance, or much about the hero’s parents, or have information about the current whereabouts of the hero. In short, Hintikka claims, Quintus cannot know anything about the hero which would lead Quintus to recognize the hero as himself. Hintikka’s point seems slightly misleading, inasmuch as no degree of third-person knowledge that Quintus may have, however great, would force him into the first-person knowledge that he* is the hero. Quintus may have evidence that he* and the hero were born in the same place, even that they had the same parents. He may even come to believe that he* is the twin of the hero, perhaps unacknowledged by his parents. There is a conceptual gap between third-person beliefs and first-person beliefs, which cannot be closed by simply the addition of beliefs from the third-person point of view. Genuine self-belief requires a shift or jump from a third-person point of view to a first-person point of view.\(^{32}\)

In the second place, although Hintikka has built demonstrative reference into his new quantifiers, it appears from Part II that ‘he*’ cannot be analyzed in terms of demonstrative reference. For example, Hintikka notes that on his analysis,

\[(30) \quad e \text{ knows that he* is a millionaire}\]

where ‘e’ is an abbreviation for ‘The Editor of Soul’, becomes

\[(31) \quad (∃x) (x = e \& K_e(x \text{ is a millionaire})).\]

What is said in (31), according to Hintikka, “is that e knows of a certain individual x that x is a millionaire, and that x is in fact e” where e is acquainted with x.\(^{33}\) For convenience, let us take this
informal reading of (31) as

(32) \( e \) knows of a certain individual \( x \) that \( x \) is a millionaire, and \( x \) is in fact \( e \), and \( e \) is acquainted with \( x \).

Even using the new quantifiers, however, (30) and (32) should not receive the same treatment. \( e \), who is the editor, may well be able to place the editor within his cognitive experience or \textit{Lebenswelt}. If \( e \) were to perceive the editor (say, in a mirror) and someone told \( e \), "The man you see in the mirror is a millionaire," then \( e \) could demonstratively identify the man in the mirror as a person whom he knows (or believes) to be a millionaire. Although it is surely a case of "individuation by acquaintance," and it is a case in which (32) is true, it does not suffice to make (30) true; for \( e \) may still not know that he* is the man in the mirror, and hence \( e \) may still not know that he* is a millionaire.

For this argument, we may conclude that if (31) is an adequate translation of (30), then (32) is not an adequate informal reading of (31). Although Hintikka does not want to explain the meaning of his symbolic language in terms of "interpretations" of symbolic expressions in ordinary language, he does want his symbolic notation to preserve and explain certain distinctions of ordinary language. To do this, such distinctions as those embodied in (30) and (32) must be statable in his symbolic language; but (30) and (32) receive the same translation, namely, (31).

A further controversy between Hintikka and Castañeda concerns questions of existential instantiation. Castañeda's argument that 'he*' is unanalyzable in terms of names, descriptions or indicators leads him to the following principle:

(E.1) There is no individual constant 'a' containing no occurrence of the quasi-indicator 'he*' such that "The Editor of Soul knows that he* is a millionaire" either (i) entails or (ii) is entailed by its corresponding statement of the form "The Editor of Soul knows that a is a millionaire".\textsuperscript{34}

Hintikka's epistemic logic has the consequence that the truth of

(31) \((\exists x) \ (x = e \ & \ K_e(x \ is \ a \ millionaire))\)
presupposes the truth of some statement of the form

(33) \( K_e(a \text{ is a millionaire}) \).\textsuperscript{35}

Thus a variant of Castañeda’s principle (E.1), stated in terms of presuppositions instead of entailment relations, appears to be violated by Hintikka. Hintikka, however, argues that the fact that the truth of (31) presupposes the truth of (33) for some \( a \) is benign.\textsuperscript{36} A reconstruction of his argument follows:

A. Sometimes \( e \) wants to say something of a particular individual, and not simply of an individual under a certain description.

B. In order to say something of a given individual, \( e \) must be able to identify the individual.

C. Since the quantifier in (31) is one which requires individuation by acquaintance, the constant ‘\( a \)’ in (33) may be a demonstrative pronoun rather than a proper name. That is, ‘\( a \)’ in (33) is simply the linguistic counterpart to the method \( e \) uses to identify the person in question.

D. Since the constant ‘\( a \)’ in (33) may be a demonstrative, e.g., ‘that one’, the sense in which (E.1) is true is not contradicted.

In the first place, even if ‘\( a \)’ can be a demonstrative, there is the aforementioned difficulty that quasi-indicators cannot be understood as demonstratives. Thus the fact that ‘\( a \)’ may be a demonstrative does not bring Hintikka any closer to Castañeda’s position.

Furthermore, there seems to be a subtle ambiguity in Hintikka’s use of the special quantifier (\( \exists x \)). The ambiguity resides in a shift in point of view toward \( a \). Say that the individual about whom \( e \) wants to speak, as in premise A, is \( e \) himself. Since, according to premise C, ‘\( a \)’ is the linguistic counterpart of the method \( e \) uses to identify the person in question (and not simply the individual under a certain description), ‘\( a \)’ is the indicator ‘I’. That is, on the one hand, what ‘\( a \)’ is is determined by \( e \)’s point of view, according to premise C; but on the other hand, what ‘\( a \)’ is cannot be determined by \( e \)’s point of view in (33). The ‘\( a \)’ in (33) cannot be ‘I’; what is presupposed by the truth of (31) cannot be expressed by
(34) \( K_e (I \text{ am a millionaire}). \)

Rather the ‘a’ in (33) must be the ‘he*’ corresponding to e’s use of ‘I’. Thus, permitting ‘a’ to be a demonstrative does not make palatable the fact that (31) presupposes (33) so much as it invites equivocation.

It may appear that Hintikka has several replies. First, since e’s propositional attitude is about a definite individual rather than simply an individual described in a certain way, it may be thought that it does not matter what terms are used to refer to the object of the propositional attitude. There is, however, a ready counter-reply: The point here is that there is no single demonstrative constant ‘a’ which can be used by e and by anyone else attributing to e self-knowledge as in (33). A second reply on behalf of Hintikka might be construed as follows: Given the logician’s prerogative to assume that there is a name available for every individual, let ‘a’ simply be a label for e. Again, there is a counter-reply. Although this would eliminate the equivocation on ‘a’, it would also eliminate the possibility that ‘a’ can be a demonstrative. Since the quantifier (\( \exists x \)) is introduced by Hintikka in order to accommodate demonstratively-identified individuals, it would defeat Hintikka’s purpose to prohibit the constant ‘a’ from being a demonstrative.\(^{37}\)

Hintikka has argued that Castañeda’s emphasis on the special problems of first-person reference has been misplaced. For example, the

basic distinction... is not between first-person and third-person cases but between knowledge that has to be expressed in terms of pronouns like ‘myself’ and ‘himself’ and knowledge that cannot be so formulated. And this distinction... is simply the perfectly intelligible general distinction between knowing something about genuine individuals and knowing something about ‘whoever someone is or may be’.\(^{38}\)

If the preceding discussion has been correct, then Hintikka is partly right and partly wrong here. Although there are important connections among all three of the distinctions he draws, the distinctions do not seem related in the way that he suggests. The failure of the new quantifier to perform its intended task shows that more is involved in attributions of self-belief than the “general distinction between knowing something about genuine individuals and knowing something about ‘whoever someone is or may be’.” What this general distinction leaves out is the connection between self-knowledge (self-
belief, etc.) and the ability to make first-person reference. Use of ‘myself’ requires that the speaker have the ability to make first-person reference to himself; this in turn requires that the speaker have the ability to refer to himself qua himself, not just that he have the ability to refer to himself qua genuine individual. Use of ‘he*’ or ‘himself’ in indirect discourse attributes to someone else the ability to refer to himself indexically in the first person. In short, Hintikka’s general distinction between knowing something about genuine individuals and knowing something about whoever may fit some description is a necessary but not sufficient condition for the distinction between first- and third-person cases of reference; and any adequate account of genuine self-knowledge (self-belief, etc.) must rely on the distinction between first- and third-person reference. For on the peculiarities of first-person reference rests the unanalyzability of ‘he*’.39

IV. FIRST-PERSON REFERENCE

The mechanism for first-person reference, which is so closely connected with self-consciousness, in English is the first-person indicator ‘I’, which, Castañeda argues, cannot be analyzed in terms of any other indicator. Both Reichenbach and Russell, by contrast, try to reduce the number of indicators needed by defining some in terms of others. Russell, for example, holds that all indicators (or egocentric particulars, as he called them) can be defined in terms of ‘this’; Reichenbach argues in a famous passage that ‘I’ can be reduced to ‘the utterer of this token’.40 Castañeda’s argument against Reichenbach is that the statement made by normal use of

(35) I am uttering nothing

is contingently false, but the statement made by normal use of

(36) The utterer of this token is uttering nothing

is self-contradictory; therefore ‘I’ cannot be analyzed as ‘the utterer of this token’.

Castañeda’s argument, as presented, seems inconclusive. Russell’s notion of the scope of a definite description suggests that (36) can be parsed in such a way that it is non-contradictory. If we read (36) as
(37) Something both is the utter of this token and is not the utterer of this token,

then Castañeda is surely correct. However, we may also read (36) as

(38) It is false that the utterer of this token is the utter of this token.

Although there are no circumstances under which (38) could be asserted truly – just as there are no circumstances under which (35) could be asserted truly – the statement made by normal use of (38) is not self-contradictory, but merely false. If a person who in fact asserts (38) had been intimidated into silence, then that person, who does utter the sentence in question, would have uttered nothing.\(^4\) Although Castañeda is thus mistaken in his argument against Reichenbach, he does make a telling point: by the use of ‘I’, one refers to oneself \emph{qua} self, without any further characterization. (36), on the other hand, characterizes the self as the speaker of a particular utterance.

Although the indicator ‘I’ is the usual linguistic device for making first-person reference in English, it may be possible for a being to have the capacity for first-person reference without possessing a language at all. The discussion of demonstrative reference in indirect discourse thus makes no contribution to the question of the relation of thought and language. However, it does have important implications for the problem of self-consciousness.

In particular, it appears that the capacity to make irreducible first person reference to oneself is both a necessary and sufficient condition for self-consciousness. It is necessary: the discussion of demonstrative reference in indirect discourse has shown that the ability to make first-person reference to oneself is a necessary condition for genuine self-knowledge, self-belief, hence for any form of self-awareness. It is sufficient: a being which can make irreducible first-person references is thereby self-conscious; for if it were not self-conscious, its “first-person” references would be indistinguishable from corresponding third-person references to itself. Consider Castañeda’s example: it is at least logically possible that there is a thinking being, perhaps a computer, with no first-person awareness of himself. Call him Externus. Externus is conscious; he is even con-
scious of his own internal states, but he is not conscious that they are *his*: to "whatever extent Externus is conscious of experiences, which are his, his consciousness lacks the internal organization of a focal empirical self which is the possessor of such experiences." Externus may or may not have an idea of a thinking being who happens to be himself, without realizing that the being of whom he has the idea is himself. Being conscious but not self-conscious, with no idea of himself as a self, he is unable to make genuine first-person references. His world contains bodily sensations, but these are unowned: Externus cannot distinguish 'There is puzzlement' from 'I am puzzled'. It is apparent, then, that the ability to make genuine, irreducible first-person reference to oneself is intimately bound up with self-consciousness.  

V. CONCLUSION

The study of demonstrative reference not only makes explicit the peculiar features of indexical and quasi-indexical devices; it also has implications for larger issues in metaphysics and philosophy of mind. I shall conclude by mentioning a few of these broader topics. (1) The fact that 'I' points to a self without characterizing it in any way, together with the unanalyzability of 'I' in terms of third-person demonstratives, may show a way to understand the insight underlying various conceptions of a transcendental self. (2) The irreducibility of quasi-indicators illuminates various issues about our knowledge of other minds; our beliefs about other minds presuppose not only the existence of other minds, but also their irreducible properties and states. (3) Arguments throughout this study suggest various constraints on conceptual frameworks. For example, there is no room for a genuine first-person indicator in a conceptual scheme which does not allow for the possibility of more than one thinking being. On the other hand, a conceptual scheme which allows for the possibility of more than one self-conscious being not only must permit a contrast between first-person statements and third-person statements, but also must have a mechanism for quasi-indexical reference. Without quasi-indexical reference, there would be no way to attribute self-conscious states to others. (4) An important implication of the unanalyzability of quasi-indexical reference is that first-person reference is irreducible to third-person reference. And since the ability to make first-person
conscious of his own internal states, but he is not conscious that they are his: to "whatever extent Externus is conscious of experiences, which are his, his consciousness lacks the internal organization of a focal empirical self which is the possessor of such experiences." Externus may or may not have an idea of a thinking being who happens to be himself, without realizing that the being of whom he has the idea is himself. Being conscious but not self-conscious, with no idea of himself as a self, he is unable to make genuine first-person references. His world contains bodily sensations, but these are unowned: Externus cannot distinguish 'There is puzzlement' from 'I am puzzled'. It is apparent, then, that the ability to make genuine, irreducible first-person reference to oneself is intimately bound up with self-consciousness.  

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reference is both a necessary and sufficient condition for self-consciousness, the concept of first-person reference, as distinct from third-person reference, is indispensable for an understanding of self-consciousness.45

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NOTES


2 Numerals in parentheses may be used to name either sentences or propositions; in each case, the context will make clear which is intended. ‘Statement’ and ‘proposition’ will be used interchangeably. Following Castañeda, I shall talk about indexical propositions as well as indexical expressions. For convenience, let us take indexical propositions to be those propositions whose formulation in direct discourse requires use of indexical expressions.

Masculine forms of pronouns are predominant in this essay. I regret this; for even if ‘he’ has a legitimate generic use, it tends to slip into a term of gender, which I do not intend it to be. Nevertheless, I rely heavily on ‘he’ for two reasons: (i) It is convenient to use numbered sentences, which do not permit switching back and forth between masculine and feminine forms, and gender-free neologisms are distracting; (ii) ‘He’ is the dominant third-person pronoun used in the literature I review here, and it would be awkward, if not impossible, to use other forms to discuss this literature.


5 Castañeda, ‘“He”’, pp. 148–151.


Keith Donnellan, 'Reference and Definite Descriptions'.


Tyler Burge, 'Belief De Re,' *Journal of Philosophy* 74 (1977): 342–346. Burge's concern is with *de re* belief, which he represents by means of open sentences, as opposed to *de dicto* belief, which he represents by means of closed sentences. If we take the 'I' in (4) to be anaphoric, then Paul's belief, insofar as he has one, is *de dicto*; it is belief in the proposition expressed by 'The murderer of Jones is happy'. At most, Burge would say, Jake's assertion of 'Paul said that I am happy' would be a *de re* ascription of a *de dicto* attitude.

Castañeda, "'He'," p. 138; 'On Knowing (or Believing) That One Knows (or Believes),' *Synthese* 21 (1970): 188; 'On the Logic of Attributions of Self-Knowledge to Others,' *Journal of Philosophy* 65 (1968): 441; 'On the Logic of Self-Knowledge,' p. 12; 'On the Phenomenologic of the I,' *Proceedings of the XIVth International Congress of Philosophy* 3 (1968): 261. In the latter article, Castañeda held the view that first-person propositions belonging to a person S exist if and only if S exists, i.e., that first-person propositions exist contingently (p. 265). In correspondence, however, Castañeda has indicated that he has given up this position in light of such examples as "Although John said nothing, he believed that he* was the happiest man in town" and "John died a year ago, but if he were alive he would believe that his* children have done all right." These examples also tell against positions like Tyler Burge's in 'Demonstrative Constructions, Reference and Truth,' according to which indexical sentences have no truth value apart from a specific act of reference.

For a discussion of attributions of self-knowledge in iterated contexts, such as 'The heir of Midas knows that Mary knows that he* is a millionaire', see Castañeda, "'He'; 'Indicators'; 'On Knowing (Or Believing); 'On the Logic of Attributions; 'On the Logic of Self-Knowledge.'


An example of such a case, involving mirrors, is given by Castañeda '"He';', p. 141.


Gilbert Harman, 'How to Use Propositions,' p. 175.

For Chisholm's definition of 'p implies x to have the property of being F' and his subsequent discussion, see *Person and Object*, pp. 29–30.

Temin, 'The Relational Sense of Indirect Discourse,' p. 290.

Davidson, 'On Saying That,' p. 172.
26 Wallace, ‘Belief and Satisfaction,’ p. 86.
27 Details of this extension are given in ‘Indexical Reference and De Re Belief,’ Lynne Rudder Baker and Jan David Wald, *Philosophical Studies* 36 (1979): 317–327.
28 Sosa, ‘Propositional Attitudes,’ p. 886.
34 Castañeda, ‘On the Logic of Attributions,’ p. 442.
37 It might be suggested that, even if Hintikka’s special quantifier fails to make the requisite distinctions, another kind of quantifier would do the trick—a quantifier designed to express the quasi-indexical reference of ‘he*’, as it corresponds to the first-person. The introduction of such a new quantifier, amounting to a quasi-indexical operator, would concede Castañeda’s point that ‘he*’ is irreducible. It would also have complications: how would it be related to the more familiar quantifiers? How are higher degrees of ‘he*’ to be accommodated? I prefer the approach, mentioned earlier, of extending a theory like Burge’s by adding the requisite primitives to the theoretical vocabulary to accommodate quasi-indexical reference.
39 The preceding discussion is closely related to issues of de dicto and de re modalities of propositional attitudes. Burge, in ‘Belief De Re,’ p. 347, points out that a sufficient condition for a belief context to be de re is that it contain an indexical expression used deictically; thus, attribution of self-belief is attribution of de re belief. Furthermore, Burge (‘Belief De Re,’ p. 341) gives credit to Castañeda for showing that the “substitutivity criterion” for de re belief does not work; for there may be failure of substitutivity at the surface level of sentences expressing belief, while the belief expressed is still de re. Additional points about substitutivity are raised by Brian Loar in ‘Reference and Propositional Attitudes,’ *Philosophical Review* 80 (1972): 9–21, and a discussion of the relation of quasi-indexical reference to de re belief may be found in Baker and Wald, ‘Indexical Reference and De Re Belief.’
41 Castañeda, ‘Indicators,’ p. 87.


Special thanks are due to Professors H.-N. Castañeda, Philip Kitcher, and Jan David Wald for helpful comments on earlier versions of this paper.