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A THEORY OF THINKER REFERENCE

(Received in revised form 24 September 1993)

In this article I consider what is in my view the primary, most fundamental case of speaker reference (henceforth: *reference*) by singular terms, and present an analysis of reference for this fundamental case by way of a reduction of this notion to the notions of causation and knowledge (*de dicto*). I start by excluding cases I consider to be methodologically and/or conceptually secondary to this primary case and (as such) reducible to or contiguous with it. While I do not elaborate on how the analyses of these secondary cases can be reduced to or extrapolated from the analysis of the paradigmatic case presented here, I do make some suggestions as to how such reductions and extensions would look.

1. THE PROBLEM

The problem is how to analyze *speaker reference*. Consider, on the one hand, a speaker of a language who has a system of beliefs etc. and, on the other, the world and objects in it. Under what circumstances does the speaker, by employing a singular term, refer to a particular object rather than to no object at all? And when he does, to which object does he refer? My perspective is realist: I assume a 'God's eye' view and explore objects, phenomena and relations in the world, and in particular causal relations between certain events (including events concerning the speaker). At the same time, I allow myself to resort to facts concerning the internal constitution and structure of the subject's belief-system. In other words, consider a subject, with his representational system (as describable 'from within', i.e., in his own terms and reflecting his internal point of view) as well as his broader epistemic system and its structure. The problem is: How are we to tie some singular terms that

he employs to objects in the word to which he might be said to refer by using those terms?

An important issue concerning belief is the question of *exportation*, i.e., the problem of specifying the requisite premise for the validity of inference from *de dicto* belief ascriptions to the corresponding *de re* belief ascriptions; more specifically, for concluding from *r*'s believing '*Fa*' that *r* believes '*F*' of *a* (or, in the more general form, that *r* believes '*F*' of *b*). Thus, in ordinary perceptual situations, in typical uses of proper names and in most other instances, one wants to allow the transition from *r*'s believing '*Fa*' to *r*'s believing *a* to be *F* (or, in more philosophical jargon, to *r*'s believing *of a* that he is *F*). Thus, one wants to conclude from *r*'s believing 'the first man in the ticket line is tall' (when *r* is the one selling tickets) that *r* believes *of* the first man in the ticket line that he is tall; and one wants to conclude from *r*'s believing 'Reagan is an old president' that *r* believes *of* Reagan that he is an old president.

In normal cases (such as those in the last two examples), when *r* believes '*Fa*', he believes *of a* that he is *F*. Yet in certain instances, it is someone other than *a* of whom *r* thereby believes that he is *F*, and in others *r* believes '*F*' of no one at all. Thus, under ordinary circumstances one does *not* want to sanction inference from *r*'s believing 'the tallest man in the 20th century is tall' to *r*'s believing *of* the tallest man in the 20th century that he is tall. In the case of a Donnellan-type situation, in which the man in the corner is drinking water, though it looks as if he is drinking a martini, we do not want to infer from *r*'s believing 'the man drinking a martini is tall' that *r* believes *of* the man drinking a martini that he is tall, but rather to allow the conclusion that *r* believes *of* the man in the corner that he is tall (even when there is only one person drinking a martini at the party). In a perfect match situation, when *r* is hallucinating and, seeing no one, believes 'the man behind the brick wall is bald', one does not want to allow the conclusion that *r* believes *of* the man behind the brick wall that he is bald when there is indeed (entirely by coincidence) a man behind the brick wall. Likewise, if *r* believes 'the first man born in the 21th century will be bald', the conclusion that *r* believes *of* the first-born man in the 21th century that he will be bald is unwarranted.

Elsewhere¹ I have argued that the form the exportation inference must take, keeping these sorts of instances in mind, is the following:²

- (1) r believes ' Fa '
- (2) $Rr('a', 'Fa') = b$
- (3) r believes ' F ' of b

That is, the requisite premise for concluding that r believes ' F ' of b from ' r believes ' Fa ' is ' $Rr('a', 'Fa') = b$ ', which specifies that r refers by ' a ' (in believing ' Fa ') to ' b '. In accordance with this account of exportation, in cases in which premises (1) and (2) obtain, the believer possesses beliefs *de re* of the object b in virtue of having reference³ to that object. Indeed, r refers by 'the first man in the ticket line' to the first man in the ticket line, and by 'Reagan' to Reagan. Yet by 'the man drinking a martini', r does not refer to the man drinking a martini (if there is one) but rather to the man in the corner. By 'the tallest man in the 20th century' r refers to no one, nor does he refer to anyone in the perfect match case (by 'the man behind the brick wall') or in the Newman I case. It is thus the relation of reference that governs exportation as well as the interdependence between *de dicto* and *de re* ascriptions of beliefs. (My position is thus quite different from a Hintikka-type account of exportation, which employs the premise ' r has an opinion who a is' instead of ' $Rr('a', 'Fa') = b$ ' here.)⁴

2. THE PARADIGMATIC CASE: BELIEF AND CONCEPTUAL ACUMEN

In this paper I attempt to spell out how speaker reference emerges. I begin by specifying which cases on my view can be derived (or extrapolated) from the paradigmatic case.

First, a conceptual-terminological point. The phenomenon of speaker reference is noticeable primarily in utterance of subjects which are candid assertions. But it surely extends to other cases: One can be said to refer when one asks questions, makes commands, or lies. I consider reference in these kinds of cases as derived from reference in the candid indicative mood, in that for every question or command involving

a singular term by which he refers, the subject also possesses candid indicative thoughts involving the singular term, with the same reference.

It is important to note that a person can also be taken to refer when he engages in a conscious inner dialogue with himself, i.e., when he thinks verbally. Just as he refers to the 'first man in the ticket line' when he says 'the first man in the ticket line is tall', so he refers when such a thought occurs to him, although he refrains from expressing it out loud. (Normally, of course, our thinking activity is much richer than our talking activity.) A cognizer can thus have reference to objects when he has unexpressed (occurrent) sentential thoughts, and accordingly we can consider the problem of reference as extending to sentential thoughts as well. I shall concentrate on the question of reference by the subject in cases of his having (occurrent) indicative sentential thoughts, whether expressed or not.

Since the *phenomenon* of reference to objects by the employment of singular terms is not restricted to cases in which one actually speaks out but extends to cases in which one possesses sentential (occurrent) thoughts involving singular terms, the phenomenon we are dealing with is therefore that of *thinker reference*, of which the phenomenon of speaker reference is a *special* (though central) case, arising when the cognizer expresses his thoughts (by speaking or writing).⁵ The reference relation discussed in this paper is thus the *thinker-reference* relation.

In concentrating, as I do, on candid, conscious, indicative, sentential utterances and thoughts, I do not deny that subjects may also refer in abnormal circumstances (e.g., when drugged, lying, murmuring unconsciously etc.), or via non-linguistic symbolic items. But such cases, I believe, should be analyzed in terms of, or extrapolated in contiguity with, the paradigmatic case.

However, it should be emphasized that assertions (and sentential thoughts) are normally context-dependent, and often irreducibly so. That is, we need not expect a cognizer in a given context to be able to paraphrase himself in a context-independent way; nor would such a capacity be pertinent to our present concerns. We will consider assertions (and sentential thoughts) of a given cognizer in a context (thus, at a given time) and will feel free to make use of this context.⁶

In what follows, indicative sentential thoughts of the subject will occasionally be called his *beliefs* in cases in which the sentences involved are ones he accepts. In the context of the topic at hand – the problem of reference – this can be taken to be a mere terminological matter. Readers who hold a conception of beliefs incompatible with this usage need not consider it as reflecting a substantive presupposition concerning the phenomenon of reference treated here.⁷ (My philosophical motivations for using this terminology are not directly related to the issue at hand.⁸)

I shall further restrict the discussion to cognizers who have adequate linguistic, conceptual and logical acumen. Mental states of cognizers who are linguistically competent can often be characterized, among other ways, by the terms they themselves employ. Heuristically, this makes the characterization of their mental states and their referential relations to the world much more accessible and manageable. But this *heuristic* accessibility surely does not suggest that the *genesis* of referential relations need always be routed via linguistic items (as opposed to symbolic, nonlinguistic items). Just as I do not want to rule out cases of reference by non-sentential, symbolic thoughts of linguistically competent speakers, I also do not want to rule out reference by pre-linguistic children, animals, etc. But such cases may involve referential systems which are not linguistic, and their treatment should, I believe, be extrapolated from the linguistic case, with which they should be regarded as contiguous. Relatively little, I suspect, can be said at this point about such cases, and I will ignore them here. Cases in which a cognizer's logical faculty is chaotic also call for special treatment, and will be ignored as well. I will concentrate on cases in which the subject's pertinent beliefs are formed and based in reasonably adequate ways.

3. THE PARADIGMATIC CASE: DEFINITE DESCRIPTIONS

As a further limitation of scope, I concentrate here on reference by definite description (as in most of the examples given above). I consider

reference by proper names and demonstratives as derived from reference by definite descriptions. For each assertion (or sentential thought) with a demonstrative (and possibly a demonstration), the speaker possesses a corresponding sentential thought⁹ with a definite description – normally quite context-dependent, possibly including indexicals (but not demonstratives) – by which he is in a position to refer (at the time) to the object demonstrated. On my view, his referring by demonstratives should be analyzed in terms of his reference by such definite descriptions. (This is not to deny that *in addition* to such definite description he may also possess others by which he refers to the object which do include demonstratives.) The same holds for proper names: reference by proper names is reducible to reference by definite descriptions, either ones which utilize a source (e.g., 'the referent of source *s* by '*a*''), or ones relating to the circumstances of dubbing, or others. This position concerning the primacy of definite descriptions will be clarified further below.

However, unlike the case of demonstratives (e.g. 'this', 'he', 'you', etc.), I make no such claim regarding indexicals such as 'I' and its cognates ('me', 'my', etc.) or 'now'. Obviously, by 'I' a person always refers to himself. I thus do not consider the determination of the reference by 'I' in a given context as a subject for further analysis (within the scope of inquiry undertaken here).¹⁰

4. *DE DICTO* – *DE RE* REDUCIBILITY

We finally reach the paradigmatic case. It involves a cognizer who is linguistically and logically competent and his sentential (indicative) thoughts (which he accepts, around the time he comes to accept them) which feature singular terms, more specifically, definite descriptions, for which reference was not acquired via a source.

In view of the restriction of the paradigmatic case to subjects with adequate linguistic competence, we can reconsider the exportation inference (section 1) and ask: Does it merely provide a sufficient condition for *de re* ascriptions? I suggest that it also provides a *reductive scheme*¹¹

whereby, in addition, the truth of the *de re* ascription would ensure both an appropriate true *de dicto* ascription, and that the reference relation indicated in the exportation inference obtains. That is, whereas the exportation inference provides a sufficient condition for the conclusion (3), the converse condition, specifying a necessary condition for the *de re* ascription (3) (i.e., '*r* believes '*F*' of *b*') would be the following:

- (4) There is a singular term '*a*' such that *r* believes '*Fa*' and by '*a*' *r* refers to *b*.

Together, the exportation inference and its converse form provide for a reduction of the *de re* construction (3) to (4), that is, a reduction of the *de re* construction to a *de dicto* construction and the reference relation. This reduction suggests that the *de re* attribution does *not* ascribe an independent type of attitude or a different mode of believing which constitutes a primary relation between cognizer and object, but is rather a *composite* of the *de dicto* form and the reference relation. (Recall that we have not restricted the *de dicto* form to context-independent expressions, and thus have not excluded from it the occurrence of indexical expressions.)

In this paper I explore the conditions under which reference is *generated*. Thus, except for the following remarks, I will not be concerned here with the phenomenon of *mediated* reference – i.e., with the transmission of reference to a subject through a source, which is the central mode of acquisition of reference for proper names. Note, however, that reference by definite descriptions can also be acquired from a source (e.g., after your friend told you, correctly, that he had met the shortest spy at a CIA party). In cases of *purely* mediated reference (i.e., acquired solely through a source), I would argue, the subject has *at the time* of the acquisition of reference a definite description¹² whereby he refers to the object he refers to by the proper name (or definite description) in question and in which he reverts back to his source's reference.¹³ (The claim, here and below, that the subject possesses such a definite description holds for competent cognizers, to whom we have limited our discussion (section 2).¹⁴) A special case of mediated reference is that in which the subject himself (at an earlier time) serves as his own

source (a phenomenon I call *diachronic reference*). (To avoid it here, I concentrate on cases in which the singular term is employed shortly after the causal connection with the object of reference that give rise to the acquisition of reference.) Once the subject has acquired reference for a singular term 'a', he may use it and refer by it on later occasions, and yet at such later times he may forget the circumstances in which he acquired his reference by 'a'. In such cases he may have available to himself definite descriptions such as 'my reference by 'a' at time *t*' (or even 'my latest reference by 'a''), thereby using *himself* as a source. Thus, his reference by the singular term 'a' in such cases is derived from his reference by such a definite description and, thereby, from past occasions of reference which follow the occurrence of the appropriate causal connection.¹⁵

5. THE CONVERGENCE PRINCIPLE

So far we have introduced no restrictions on singular terms in the reductive form of the exportation inference. Above we noted the well-known phenomenon of *displaced reference* (or *reference shift*), that is, of reference (i.e., thinker (speaker) reference) and denotation not coinciding: A subject might refer to an object by definite description, proper name or demonstrative; but the singular term he uses might fail to apply to the object he uses it to refer to (e.g., might fail to uniquely describe it, might fail to be a name of it, or might fail to pick it out via an attendant demonstration¹⁶). The causal approach to reference has focused on the putative poverty or inadequacy of available descriptive resources as underlying failures to account for reference of proper names by a resort to available descriptive resources. However, having limited our scope to unmediated reference (hence the very limited role of proper names in our discussion), we can pose the question thus: How meager can the pertinent adequate descriptive means that a (sufficiently linguistically competent) cognizer has while referring to an object be? How wrong can he be in describing that object? I want to argue that he cannot be *entirely* wrong about it. He must possess some minimal descriptively adequate means of specifying it.

Thus, consider again the Donnellan-type case described above. The cognizer in question did indeed refer by 'the martini drinker' to the man in the corner, despite the incorrect descriptive specification of the object referred to by this definite description. But he surely had in his possession another definite description which denoted that object and was thus descriptively adequate and through which, furthermore, he was in a position to refer to that object: this is of course the definite description 'the man in the corner'. Moreover, the cognizer believed 'the man in the corner is the martini drinker'. Consider a tougher case of the sort suggested by Donnellan: Suppose our cognizer was walking down a lane one dark night and noticed a medium-sized object in front of him which seemed to be a mugger waiting for a victim. He thus thought to himself: 'The mugger down the road is about to attack me.' However, in fact it was not a mugger but a large rock, which the subject mistook to be a mugger and to which he referred by 'the mugger down the road'. Despite this massive descriptive error, the subject did possess a definite description which indeed denoted the object in question, e.g., 'the (first) mid-size object down the road', and he was in a position to express himself by saying: 'The mid-size object down the road is a mugger about to attack me'. He thus possessed a definite description which denote the object and by which he was able to refer to it.

This, I suggest, is a general phenomenon: *Speakers cannot refer (by a singular term) to an object (an individual) unless they possess a definite description which denotes the object.* Furthermore, reference to an object by cognizers is accompanied by their possessing definite descriptions which denote the object referred to *and* by which they have reference to that object. That is, for a person to be in a position to refer to an object, denotation of and reference to that object must *converge* for some definite description he possesses. Call this principle the *Convergence Principle*. A more comprehensive formulation of it is:

The Convergence Principle:

- (5) In order to refer to an object by some singular term, a person must possess a definite description which denotes that object and by which he refers to the object (and which, in addition, he takes to be coextensive with the singular term in question).

I use the term 'coextensive' to mean: apply to the same object. A person takes two definite descriptions '*a*' and '*b*' to be coextensive iff he believes '*a* is the same as *b*', or '*a* = *b*', or the like. Note that we have not required that the definite description involved be context independent or devoid of indexicals. Further, such a definite description fulfilling the requisite role in the Convergence Principle is to function as such in some *thought* of the subject, not necessarily in an utterance he makes: there must be a (sentential) thought of the subject (which he accepts), containing such a definite description, by which he has reference to the object in question.¹⁷ I use the term 'has reference' in the sense of 'is in a position to refer' (which is implied by 'refers'). (I sometimes also use 'refer' as an abbreviation of 'is in a position to refer'.) I continue to use the terms 'refer' and 'reference' in the sense of thinker (speaker) reference. The denotation of a definite description is throughout the object to which the definite description uniquely applies (descriptively) in the context in question. (Recall too that the discussion here is limited to linguistically, conceptually, and logically competent subjects.)

Thus, in perceptual situations (typical of cases of acquisition of unmediated reference), definite descriptions fulfilling the Convergence Principle could be 'the man in front of me', 'the man speaking now', 'the lady in the room wearing a red hat', etc. Although here I deal only with cases of unmediated reference, the Convergence Principle applies also to cases of mediated reference as well and to reference by all sorts of singular terms. In cases of mediated reference, the definite description would often be 'the reference by '*a*' of (my source) *s*', or even 'my reference by '*a*' a year ago'. The latter is a case of treating oneself in the past as a source – a special case of mediated reference (*diachronic* reference). In cases of mediated reference the buck is passed to the source: The Convergence Principle must now apply to the latter if the definite description in question is to denote. The source (another person, or the believer at an earlier time) must then possess a definite description that fulfills the requirement in the Convergence Principle (for *him*, at the appropriate time). That is, he must possess a definite description which he takes to be coextensive with '*a*', by which he refers (referred) to '*a*', and which, in addition, in fact denoted this referent. (For the

source, of course, the definite description (if there is such) that fulfills the Convergence Principle may or may not be '*a*', which is not necessarily a definite description in the first place).¹⁸

6. REFERENCE ELIMINABILITY

In view of the reductive scheme for *de re* ascriptions in terms of the reference relation, a result corresponding to the Convergence Principle follows for *de re* ascriptions as well. (In this paper I concentrate primarily on ascriptional belief sentences.) If a certain *de re* ascription is true, then the subject has reference to the object by some singular term (according to the above reductive form). By the Convergence Principle, he refers to it by a definite description for which reference and denotation converge. Hence, from the Convergence Principle and the reductive scheme for *de re* ascriptions, the following ensues:

- (6) If a subject believes *de re* about a certain object that it is so-and-so, then he refers to it by a definite description which denotes the object.

Formulation (6) as well as the Convergence Principle hold in general (subject to the competence restriction, which can in turn be relaxed through recourse to latency (section 10)), and thus not just in the case of unmediated reference, although in this paper only unmediated reference is discussed.

Our main concern here is the way reference to objects is *generated*. Given the Convergence Principle, it is natural to suggest that reference is generated through definite descriptions which fulfill it. This conception in turn suggests a program of reducing reference by various singular terms to reference by definite descriptions which fulfill the Convergence Principle.¹⁹ To avoid circularity these must be definite descriptions fulfilling the Convergence Principle which are themselves free of referential locutions.

However, given the reduction of *de re* ascriptions to *de dicto* ones and the reference relation, to allow *de re* locutions in such definite descrip-

tions would result in circularity: *de re* ascriptions would be reducible to the reference relation, which in turn would be generated via definite descriptions which themselves may contain *de re* locutions. In order for both the reductive form of the exportation inference for *de re* ascriptions and the Convergence Principle to hold, and for the latter to serve as a basis for such a reductive program for the reference relation, the Convergence Principle must be fulfilled by definite descriptions free of attitudinally *de re* locutions. We are thus led to the following requirement, to be called *The Principle of Reference Eliminability*, namely that *the Convergence Principle be fulfilled by definite descriptions which are referentially untainted*, i.e., which include neither referential nor attitudinally *de re* locutions. The addition of this requirement of referential untaintedness to the Convergence Principle yields the *strong form* of the Convergence Principle, that is, the Principle of Reference Eliminability. (The Principle of Reference Eliminability is put forward as a thesis concerning cases of unmediated reference *only*. It obviously does not have to hold in cases of mediated reference. Note too that the *de re* locutions invoked here are attitudinally *de re*, as distinct from modally *de re*.)

The Convergence Principle accordingly has a *weak form*, that is, as originally formulated, without the Principle of Reference Eliminability. Since in this form no further requirement (such as the requirement of referential untaintedness) is imposed on the definite descriptions in question (even in cases of unmediated reference), this form does not suffice for a theory designed to reduce the reference relation to a terminology free of it. A variant of the weak form of the Convergence Principle might satisfy those who would be content to analyze the reference relation in terms of attitudinally *de re* relations without expecting the latter to be reducible in turn to *de dicto* attitudes. For those, like myself, who hold the (attitudinal) *de re-de dicto* reducibility thesis in full, this will be quite unsatisfactory. I thus advocate the strong form, which is used as a *reductive principle* in what follows.

Accordingly, a definite description such as 'the person I attend to now' does *not* qualify as a definite description of the sort assured by the principle of Reference Eliminability, since the relation of attending in question is attitudinally *de re* (even though the construction is not a

sentential (propositional) ascription).²⁰ Thus, on my account, a relation of reference to the object in question is required for there is to be some attending to an object or focusing of attention on it. Resort to *de re* locutions of this sort would undermine the enterprise of analyzing the *de re* mode (the mode of having attitudes and mental states which are of certain objects), or would make it flagrantly circular (in the absence of an independent analysis for them not involving the reference relation).²¹ For those who would be content to analyze the reference relation in terms of a notion of 'attending to an object', or 'focusing attention on an object', the virtue of such a route is thought to consist in minimizing the need for an overly sophisticated linguistic apparatus. My notion of latency (of believing, knowing, etc. – see below, section 10) is designed to address this problem.

On the other hand, a definite description such as 'the object my eyes are focused on now' is suitable for fulfilling the Convergence Principle in its strong form, since the relation of one's eyes being focused on a particular object is not an intentional relation: It does not presuppose a reference relation, since one's eyes might be focused on something without him necessarily noticing it, and thus it is not a *de re* attitudinal relation. The term is manifestly physicalistic, and thus referentially untainted.

Note that for the strong form of the Convergence Principle we did not require any strict form of context independence: the definite descriptions in question may indeed include indexicals such as 'I' and 'now'. Obviously, by 'I' the subject (being linguistically competent) refers to himself. Thus, in various perceptual situations, the requisite definite descriptions may be, e.g., 'the woman in front of me', or 'the person sitting next to me', or 'the child screaming next door'. The availability of such definite descriptions obviously enhances the plausibility of the strong form of the Convergence Principle. Thus, in the framework of the present enterprise, I do not consider the determination of the referent of 'I' in a given context a subject for further analysis. Since my goal is specification of reference to objects, I similarly do not consider temporal indexicals to be part of the subject matter covered by this analysis. 'I' (and its first-person cognates) and the temporal indexical 'now' may therefore occur in definite descriptions by which the subject refers in a

way which is not derived from his reference by other definite descriptions. (Thus, in considering reference by demonstratives as derived from reference by definite descriptions, we allow the latter to include indexicals.)

The realist orientation of the analysis makes it clear why the indexicals 'I' and 'now' and their cognates need not be eliminated. We take the (linguistically competent) cognizer in his environment, and consider (for simplicity) utterances of his which contain singular terms and may contain such indexicals. It is our goal to map his singular-terms tokens to objects in his environment (or in the world, in general) in a way that reflects the reference relation. Within this setup, his uses of 'I' should be mapped to himself, and his use of 'now' should be acknowledged as specifying the time at which his utterance was made. Of course, it remains an open question how to map his singular terms in general – definite descriptions (which need not be mapped to their denotations), demonstratives (the mapping of which need not be determined by an act of demonstration) and proper names. This question remains intact when such singular terms include indexicals such as 'I' and 'now' (as they often do).

Further, in the principle of Reference Eliminability above, only *referentially dependent de re* locutions must not be admissible as referentially untainted. Thus, for some perceptual constructions, notably the seeing-that construction, the exportation inference is relatively degenerate in that all that is required for the transition from the *de dicto* ascriptional form to the *de re* form is the truth of the identity statement connecting the term in the *de dicto* construction and the term which replaces it in the *de re* construction. Yet such *de dicto* construction prove amenable to analysis which does not resort to the reference relation (though it does, predictably, resort to basic components of the reference relation). Consequently, if this indeed is the case, such constructions (and in particular the seeing-*x* construction which is in turn analyzable in terms of the seeing-that construction, and thus also definite descriptions such as 'the child I see in front of me')²² may be utilized without circularity in applying the Convergence Principle in its strong form.²³

7. STRICT ANCHORS

Let us call the definite descriptions fulfilled by the Convergence Principle (taken here and below in its strong form, i.e., as strengthened by the requirement of referential untaintedness²⁴) *anchors*. We are concerned here with the *emergence* of unmediated reference: How are referential relations to objects generated? The main suggestion at this point is that the Convergence Principle points to the existence of *privileged* definite descriptions (which fulfill the Convergence Principle) through which reference is generated and transmitted to other singular terms by means of identity beliefs (in which they occur) and other mechanisms, such as mediated reference and diachronic reference. (Identity beliefs are beliefs (or, if you will, sentences accepted) of a form such as '*a* is *b*', for some singular terms '*a*' and '*b*'.) The strong version of the Convergence Principle underlies much of the approach taken here to the analysis of reference. All cases of reference are ultimately rooted in anchors, in definite descriptions through which reference by a cognizer is channelled to the object in an unmediated way. Cases of reference by locutions which are not anchors are *derived* from anchor reference.²⁵

Going back to the martini example, it is clear that the subject's reference by 'the martini drinker' is derived from his reference by 'the man in the corner' and the identity belief 'the martini drinker is the man in the corner'. Were it not for this identity belief, the subject would have no reference by 'the martini drinker'. The same is not true, however, for 'the man in the corner'. This definite description plays a role in the *generation* of reference to the object in question, and its referential role is not parasitic on other definite descriptions or singular terms in the way in which the referential role of 'the martini drinker' is parasitic on it. The descriptive character of 'the man in the corner' plays a role in its being a *vehicle of reference* to the object in question in a way that the descriptive character of 'the martini drinker' does not. 'The man in the corner' is a definite description of the sort satisfying the Convergence Principle in this case, whereas 'the martini drinker' is not: It is through anchors such as 'the man in the corner' that reference to that man is generated, whereas reference by terms such as 'the martini drinker' is parasitic on reference by an anchor (through the

corresponding identity belief). Given the Convergence Principle, then, our hypothesis is that the definite descriptions through which reference is generated are anchors.

However, not all anchors function as reference generators. Some, despite being anchors (and thus fulfilling the Convergence Principle in its strong form), acquire their referential role derivatively, in a way similar to that in which 'the martini drinker' acquires its referential role through 'the man in the corner' and the identity belief connecting the two. Thus, consider the following case, a combination of the man-in-the-corner type case and the shortest-spy type case. Suppose our subject is present at a CIA party various spies are expected to attend. In front of him he observed the (one and only) man in the corner. 'The man in the corner', in this type of situation is a typical anchor (satisfying the Convergence Principle), through which, intuitively, reference to the object in question is in fact generated.²⁶ But suppose it happens that it just *dawns* on our subject, on no grounds whatsoever, that the following is the case: the man in the corner is the shortest spy. Though he did not have reference for 'the shortest spy' before, he now does in virtue of this newly acquired identity belief and the reference he has had for 'the man in the corner'. He now refers by 'the shortest spy' to the man in the corner. Assume further that, entirely accidentally, the man in the corner indeed *happens* to be the shortest spy. For our subject, then, 'the shortest spy' is now an anchor, satisfying the Convergence Principle. But surely the reference the subject has for it was acquired solely on the basis of the identity belief 'the shortest spy is the man in the corner' and his reference for the latter definite description. The descriptive content of 'the shortest spy' played no suitable causal role in securing reference for it. Thus, not every anchor generates reference. Let us then call those which do *strict anchors*. 'The man in the corner' is, in this example, a strict anchor; 'the shortest spy' is not. Our task, then, is to provide a characterization of *strict anchors*, one consistent with our reductive program, i.e., in terms which are referentially untainted.

With strict anchors we reached the root. They are the vehicles through which reference to objects in the world is generated, and are thus indispensable for acquiring and having reference. They are the ultimate referential links between a cognizer and an object, in virtue

of which (unmediated) reference to that object is acquired; hence their considerable interest and importance. Reference by anchors which are not strict is determined through identity beliefs connecting them with strict anchors. Reference by anchors (which are not strict) is thus derived from reference by strict anchors. The primary goal of a theory of reference is therefore to characterize strict anchors, a task I now undertake. A secondary goal involves fleshing out the versatile mechanisms of derivative reference.

8. THE FORM OF THE CAUSAL CONDITION

Strict anchors are those definite descriptions by which reference is generated and channelled to the object. The cases of purely unmediated reference (i.e., in which reference is acquired *only* in an unmediated way), on which we concentrate in this paper, typically involve a perceptual situation of some sort. As many have recognized, no reference can be acquired without some (substantive) causal connection. But greater specificity is called for as to what sort of causal connection is required. In the case of proper names, it is the acquisition of the use of the name that normally establishes the appropriate causal connection²⁷ with the object in question. This cannot be the case for definite descriptions, with which we are concerned here, since speakers might well use definite descriptions as items of the language without purported reference. (Thus, one may use the term 'the tallest man in the 20th century' without purported reference until reference for it is acquired, if ever). The causal connection in the case of acquisition of reference by definite descriptions must therefore link with the acquisition of *beliefs* in which the definite description in question figures.

Our present task is to characterize strict anchors in a way that sustains the reductive goal: to avoid circularity, the analysis must utilize terms which are referentially untainted.²⁸ But since strict anchors are anchors, our question is: Under what conditions is a given anchor '*ixHx*' (which, as an anchor, satisfies the Convergence Principle in its strong form and thus denotes the object *ixHx*) a strict anchor? The casual connection in question must thus be between the object *ixHx*, on the one hand, and,

on the other, the subject r 's acquiring beliefs of the form²⁹ ' $ixHx$ is F ' (for some ' F ' or other).³⁰

But, of course, not *any* substantive causal connection will do. Consider a case in which a contest is about to take place. At time t , before the contest has actually started³¹ and thus before the winner has been determined, no one has reference by 'the winner (of the contest)'. (No one, say, ventures to guess that some particular contestant is the eventual winner.) Assume, furthermore, that the organizer of the contest was the one to tell our subject about the contest and its conditions and, in particular, that the winner will receive a \$10,000 prize. The winner (who was in an adjacent room, unbeknownst to our subject), overheard the conversations. The winner was then causally connected with the organizer's report to our subject and, thus, through him, with our subject's acquiring the belief 'the winner will win a \$10,000 prize'. The winner, then, also had some significant causal connection with our subject's acquiring a belief of the form 'the winner (of the contest) is F ' (for some ' F ').³² But surely 'the winner of the contest' is not a strict anchor in this case. It is not even an anchor, since at time t (on which we focus) the subject is not in a position to refer, by 'the winner', to anyone.

The natural move, then, is to abandon the loose relation of substantive causal connectedness in favor of the much tighter relation of 'being a cause of'. Mind you: *not* 'the cause' – just 'a cause'³³ (an event may have numerous causes). What we require now is that the object in question, $ixHx$, be a cause of the subject's acquiring a belief of the form ' $FixHx$ '.

But, of course, this information is not of the right form. Strictly speaking, objects are not causes. It is $ixHx$'s *being such-and-such* which must then be a cause of the subject's acquiring a belief of the form ' $FixHx$ '.³⁴ We thus move to the following formulation of the condition for a (referentially untainted) definite description ' $ixHx$ ' to be a strict anchor:

- (7) $ixHx$'s being G (for some ' G ') is a cause of the subject's acquiring a belief of the form ' $FixHx$ '.

This formulation readily handles the examples that did not exhibit strict anchors due to the absence of any substantive causal connection. Thus, in a normal case, surely no feature of the tallest man in the 20th century is such that his possessing it is a cause of the subject's believing 'the tallest man in the 20th century is *F*' (for some '*F*'). In a straightforward version of the case of the man behind the brick wall (unseen by the hallucinating subject), no feature of that man is such that his having it is a cause of the subject's acquiring a belief of the form 'the man behind the brick wall is *F*'. This formulation is also adequate for the above example in which there wasn't much of a causal impact of the winner of the contest on the subject, since, in that example, no feature of the actual winner of the contest is such that his having it is a cause of our subject's acquiring a belief of the form 'the winner of the contest is *F*'.

I shall not dwell here on analyzing the notion of a cause. I do not believe the theory of reference proposed here should stand or fall with the adequacy of any *particular analysis* of this notion. The issue of how to analyze the notion of being a cause should be considered a separate issue.^{34.1}

However, condition (7) is too weak, and thus applies to definite descriptions which are not strict anchors (or even anchors). Thus, consider the contest example again, and suppose that the organizer of the contest was also one of the participants. Furthermore, assume that he himself ultimately became the winner. At time *t* (before the contest started) no one (in particular our subject) referred by 'the winner', which is thus not an anchor. But surely the winner (who happened to be the organizer) having told the subject about the contest was a cause of the subject's coming to believe 'the winner will win \$10,000'. Hence condition (7) is satisfied.

As this example suggests, in tightening condition (7) we must be less liberal about the predicate '*G*'. We should turn attention again to '*ixHx*': It already does quite a bit of work in this condition, in denoting the object that is the candidate for referent of the definite description '*ixHx*' (our candidate for a strict anchor) and in being a singular term which must occur in a (sentential) belief acquired by the subject (where *ixHx*'s

being so-and-so is a cause of its acquisition). We should, however, also expect '*ixHx*' to play a role in the causal connection itself as well. In modifying condition (7), we should thus require that, rather than have an existential quantification on '*G*', '*ixHx*' do the work instead, and thus move to the following formulation:

- (8) *ixHx*'s being *ixHx* is a cause of the subject's acquiring a belief of the form '*FixHx*'.

((8) should be read as modally *de re* regarding the *first* occurrence of '*ixHx*'. The second occurrence of '*ixHx*' functions as a predicate. The antecedent '*ixHx*'s being *ixHx*' of the causal condition must *not* therefore be read as an identity.)

The candidates above ruled out by condition (7) (e.g., 'the tallest man', 'the man behind the brick wall') are obviously ruled out by (8) as well, since (8) constitutes a strengthening of (7). Our first example fits condition (8): In it, the person in question (i.e., the man in the corner) being the man in the corner was indeed a cause of the subject's acquiring the belief 'the man in the corner is tall'. And indeed, 'the man in the corner' is a strict anchor. The last example is now taken care of as well, since surely, at time *t*, it is not the case that the winner of the context's being the winner of the contest is a cause of the subject's acquiring some belief (and, in particular, some belief of the form '*FixHx*').³⁵ Similarly, in the Donnellan-type example (in its standard version, and where the martini drinker is elsewhere at the party), the martini drinker's being the martini drinker is clearly no cause of the subject's acquiring any belief of the form 'the martini drinker is *F*'. Hence 'the martini drinker' does not qualify as a strict anchor (as it surely is not, since it does not even satisfy the Convergence Principle).³⁶

9. STRICT ANCHORS: THE KNOWLEDGE REQUIREMENT

Nevertheless, condition (8) will still not quite do, even though in its present form it normally handles cases adequately (in particular, those which are not especially intricately rigged to generate special types of

deviant causal connections). The reason it will not do is that in special cases of deviant causes condition (8) is satisfied by definite descriptions which are not strict anchors (and indeed not even anchors at all), as the following variation on the martini-drinker case brings out.

Assume that at that party, someone noticed that he was the only martini drinker. He was convinced, however, that being the only martini drinker was highly noticeable, and carried negative social connotations in that situation. He was thus motivated to see to it that he would not appear as the only martini drinker, and therefore, surreptitiously, reached for (empty) martini glasses that were kept in stock, and went around distributing them while removing glasses of other kinds. Guests at the party were consequently forced to use martini glasses for whatever drinks they were about to have, among them our man in the corner, who consequently used a martini glass to drink water.³⁷ The martini drinker, then, being the martini drinker, was a cause of non-martini glasses being unavailable and of martini glasses being readily available, in particular in the vicinity of the man in the corner, and was thus a cause of the man in the corner's using a martini glass and, consequently, of our subject's coming to believe, 'the martini drinker is tall'. But in this variation, as in the original one, the subject still referred by 'the martini drinker' to the man in the corner. Hence 'the martini drinker' is not an anchor, *a fortiori* not a strict anchor; and yet it satisfies condition (8).

This sort of case, I believe, displays problems similar to those encountered in attempts to analyze knowledge. Even strengthening the causal condition (8) with a requirement to the effect that the subject be adequately (internally) justified in having the belief in question will not do. The subject in the case described *is* fully justified in believing 'the martini drinker is tall'. As the next step, it might seem, we might move to require that the subject also believe that the causal connection spelled out in (8) holds. But even if we strengthen this requirement further and require that the subject be *justified* in actually believing that the causal connection spelled out in (8) holds, our requirements will still not be strong enough. In the last example, if the circumstances were sufficiently non-suspect, the subject would be quite justified if, however reflective, he believed: the martini drinker's being the martini drinker is a cause of my belief 'the martini drinker is tall'. Yet even though

the causal connection spelled out in (8) holds and the subject is justified in believing that it holds, the subject clearly does not *know* that such a causal connection holds. He *takes it*³⁸ that the martini drinker being so is a cause of the acquisition of his belief and that that causal connection obtains in a certain way (a straightforward visual way), while in fact such a causal connection obtains in another, quite roundabout, way. The non-satisfaction of the sought-after condition in this case would thus be secured if we require that, in order for the definite description in question to be a strict anchor, the subject must *know* that the causal connection spelled out in (8) obtains.

At this point, having to restrict (8) even further, it is important to recognize the intimate connection between reference and knowledge. Observe that whenever a person has reference by a term to an object *a*, he believes *of a* that it exists. Furthermore: he must also *know* that the object exists. This, of course, is believing *de re* and knowing *de re*, which we are barred from resorting to in formulating the conditions for strict anchors. But in view of the reductive character of the exportation inference, when a subject knows *of a* that it exists, it follows that he knows (*de dicto*), '*b* exists', for some singular term '*b*' whereby he refers to *a*. (The exportation inference holds for knowing and other sentential (propositional) attitudes, not just for believing. Likewise, its reductive character holds for knowledge and other attitudes as well.) Reference thus implies knowledge *de dicto*. Furthermore, reflection and consideration of pertinent examples reveal that a necessary condition of '*ixHx*''s being a strict anchor is that the subject know (*de dicto*): *ixHx* exists.³⁹ The subject (in the brick wall example) does not know: there is one man behind the brick wall; and indeed he does not have reference by 'the man behind the brick wall'. But he does have reference by 'the man in the corner', and indeed knows: the man in the corner exists. Given that a knowledge condition is necessary for a definite description's being a strict anchor, it is natural to realize that knowledge is a constituent of the reference phenomenon.⁴⁰ As such, it can function as a building block in the analysis of the latter as well. We can thus feel comfortable adding a knowledge constraint to condition (8), reformulating it so as to require not only that (8) hold, but also that the subject know (*de dicto*) that it holds. We thus obtain:⁴¹

Strict Anchor Penultimate Definition:

- (9) The subject knows (*de dicto*) (for some 'F'): *ixHx*'s being *ixHx* is a cause of my believing '*FixHx*'.⁴²

The Strict Anchor Penultimate Definition can be taken as specifying the premise of a *very special case* of exportation for knowledge (and a very important one at that). That is, in the context of our analysis, the fact that condition (9) obtains reflects that the following exportation inference is valid (recall that we are considering a denoting definite description '*ixHx*' which is referentially untainted):

r knows (*de dicto*): *ixHx*'s being *ixHx* is a cause of my believing '*FixHx*'

r knows of *ixHx* that it is *ixHx*.

(Since the premise specifies the condition for being a strict anchor, it follows from the premise that *r* refers by '*ixHx*' to *ixHx*.)⁴³

In reducing reference to knowing (*de dicto*) we are still, to be sure, in need of an analysis for the latter. But a successful reduction of reference to knowledge would leave us with one problem instead of two and exhibit the affinity between the two concepts. Notice that in the arguments given so far, I have not ruled out a successful causal analysis of knowledge. Yet for those of us who do not believe in the validity of such an analysis and favor analyzing knowledge in terms of explicit normative concepts (e.g., justification, *not* taken as reducible in causal terms), such a reduction carries an important implication: an inherently non-naturalistic character of reference would emerge from its reduction to knowledge. To reduce reference to knowledge, for those who hold such a view, is to give up on a strictly causal account of reference and to forgo reference as a constituent of the natural and causal order. However, for those who believe in a causal analysis of (among others) knowledge, this reduction forces no major revision in outlook. Though hopefully significant and illuminating, such a reduction does not threaten the causal nature of reference.

With this analysis of strict anchors, the sketch of the complex structure of reference comes to an end, though various loose ends remain to be tied up. Once the notion of a strict anchor is in place, the flow of ref-

erence has a beginning: from strict anchors to anchors, and from both of these to other singular terms the same cognizer takes to be coextensive with them (and, in particular, proper names on the occasion of dubbing); from cases of unmediated reference to cases of mediated reference (and in particular, diachronic reference and proper names); from indicative, sentential thoughts to utterances (or thoughts) in non-indicative moods; and from sentences accepted (or beliefs) to other attitudinal counterparts (sentential and other). I have indicated a few ideas about some of these links, but the story in full remains to be told.

10. THE LATENT KNOWLEDGE MODIFICATION

Yet it is obviously unrealistic to expect speakers *in general* to believe (let alone know) the kinds of sentences in the scope of the knowledge predicate in the above condition. They may not be familiar with the terminology involved;⁴⁴ may not uphold that causal conditions of certain sorts underlie various beliefs of theirs; and their reasoning may be, to a certain extent, imperfect without their capacity to refer necessarily being impaired.⁴⁵ Thus, requiring full-fledged knowledge is requiring too much. What is called for, in relaxing the constraints of sufficient competence, is *latent knowledge*, a weakening of the notion of full-fledged knowledge.

Let us consider the notion of knowledge as involving belief, whether with or without internal or external justification, with or without causal conditions. Justification can be extended to sentences not possessed as (sentential) beliefs by the cognizer. Causal conditions can be applied to elements of the cognizer's epistemic frame that may qualify as yielding (or supporting, or indicating the truth of) the sentence in question (or providing requisite discriminatory tools regarding it). If a sentence '*p*' is justified in view of the body of beliefs of the cognizer, the cognizer may be considered *latently* justified to believe '*p*' (although he might not believe '*p*', or believe '*p*' for the wrong reasons, or be unfamiliar with some terms occurring in '*p*'⁴⁶). (A cognizer will be considered latently justified to believe '*p*' if he is justified in actually believing '*p*'. Similarly, latent knowledge will be taken to cover actual knowledge as well.)

Cases of latent (though not full-fledged) knowledge are conceived as being close to qualifying as cases of knowledge, but falling short in some respects: they are cases in which the believer has all it takes for there to be full-fledged knowledge, *except* for some particular and relatively minor deficiency, such as his lacking some ingredients or features which are necessary for full-fledged knowledge, with the latency involved being *local* and relative to the deficiency pertinent to the case at hand.⁴⁷ A person may thus be considered as latently knowing '*p*' in case '*p*' qualifies as fulfilling the requisite internal and/or external justificatory conditions and/or causal conditions when applied to some adequate (evidential or indicatory) base (for '*p*') in the cognizer's epistemic frame. That is, from the causal perspective, *r* might be considered as latently knowing '*p*' if he possesses information in his epistemic framework which includes enough ingredients which are appropriately causally connected to the objects (or facts) in question so as to allow for a belief '*p*' to constitute knowledge if rooted in an appropriate way in these informational ingredients. In other words, *r* may latently know '*p*' in case some informational ingredients which *r* possesses and some causal connections which certain objects (or facts) bear to his possessing these informational ingredients suffice for '*p*' to constitute an item of knowledge in a suitable epistemic frame (richer in certain ways than that of *r*) which preserves these informational ingredients and causal connections and in which '*p*' is rooted in a certain way in these informational ingredients.⁴⁸ The notion of latency can thus provide for an extension of the account presented here to cognizers who fall somewhat short of the requisite level of competence.⁴⁹

Thus, even though a full-fledged knowledge requirement in the Strict Anchor Penultimate Definition is too strong, the requisite qualification is that of latent Knowledge. Our modified (and final) analysis of strict anchors is thus as follows (for a referentially untainted denoting predicate '*ixHx*'):

Strict Anchor Definition:

- (10) '*ixHx*' is a strict anchor for the cognizer *r* iff (for some '*F*') *r* latently knows (*de dicto*): '*ixHx*' 's being *ixHx* is a cause of my belief '*FixHx*'.⁵⁰

(The impact of this condition with latent knowledge (symbolized as 'K') can also be presented as:

$K_r(E!x)(Hx)$, and, for some 'F':

$K_r[(Ex)(x \text{ is } H, \text{ and } x\text{'s being } ixHx \text{ is a cause of my belief 'FixHx'})).]$

' $ixHx$ ' 's being a strict anchor guarantees that the cognizer has reference to $ixHx$ by ' $ixHx$ '. In the beginning sections I briefly discussed how reference by singular terms in general is to be reduced to (or extrapolated from) reference by strict anchors. The analysis of strict anchors constitutes the ground level of this recursive conception of reference by singular terms. It also supports, and fits with, a conception of *de re* ascriptions as reducible to *de dicto* ones (via the notion of reference developed here, and through it the notion of *de dicto* knowledge).

The upshot of this theory of reference is that reference by singular terms is generated and channelled by strict anchors, and thus ultimately secured through the ingredients that enter into the making of strict anchors. The ultimate anchoring to the world (of singular terms) is therefore secured by the fulfilment of certain causal conditions and certain epistemic constraints (guaranteeing knowledge), as well as by descriptive adequacy. (Descriptive adequacy has to do with the requirements that strict anchors are definite descriptions which denote, and that reference by strict anchors is to the objects they denote, thus reflecting the Convergence Principle.⁵¹) As far as singular terms are concerned, there are, therefore, no ways of generating reference which are non-descriptive (or haecceitistic), non-cognitive (and non-epistemic), non-causal or solely causal.

In particular, it should be emphasized, no special intentions were required: no special intentions, communicative or other, play *any role* in the analysis. Recall that the reference phenomenon was conceived as encompassing not just speech acts, but also (occurrent) sentential thoughts that a cognizer can have all by himself, and thus without any speaker-audience interaction. Reference by a proper name (in a non-mediated case, in the idiolect of the subject) is determined by strict

anchors the cognizer holds as coextensive with it. No specific intentions need be *relied* upon for determination of his reference by the proper name, *although* various intentions may well be present as mere *concurrent phenomena*, but *not* as *constituents* of the reference phenomenon. Pertinent identity beliefs of the subject play a rôle corresponding to that other writers attempt to assign to intentions. (Intentions *de re* would, of course, be *composites* of intentions *de dicto* and the reference relation.) My perspective here differs markedly, in this respect, from the way in which Donnellan conceives of the speaker-reference phenomenon, that is, in a speaker-audience setting permeated with communicative intentions, and from Kripke's approach to the related phenomenon of the referential-attributive distinction which he treats as robustly rooted in Gricean communicative intentions.⁵²

Further, the reference phenomenon (at least as exhibited at the level of its emergence) is consequently rooted in the phenomenon of knowledge (*de dicto*) and the relation of being a cause. If these are naturalizable, so is the reference phenomenon, and if they are objective (even if not naturalizable), so is reference. If knowledge involves ineliminable normative elements, so does reference. (If the relation of being a cause boils down to the relation of *some positive causal impact*,⁵³ which, I argue, is entirely objective, so might be the reference relation.⁵⁴⁵⁵

NOTES

¹ Cf "Quine and Modalities *de re*: A Way Out?", *Journal of Philosophy*, Vol. LXXIX, 6, June 1982, esp. sections IV–VI.

² Here and elsewhere I allow myself to use quotation marks fairly causally, e.g., in using regular quotes where corner quotes are required.

³ In section 2 (and note 5), I point out that the notion of reference here is the broader notion of thinker-reference.

⁴ For my critique of the 'having an opinion who' account of exportation, see "Quine and Modalities *de re*: A Way Out?", *ibid.*, section III. Cf. also my "The Objective Dimension of Believing *de re*", *Critica*, Vol. XXIV, No. 70, 1992.

⁵ I would argue that the referential features of (sentential, indicative) speech acts are derived from those of the sentential thoughts expressed. Thus, in the exportation inference above, the reference relation used in the second premise (and symbolized as

'R₁') is in general the thinker-reference relation. For further elaboration of this point, see my "Divided Reference", *Midwest Studies in Philosophy* (Philosophy of Language, II), 1989, section III.

⁶ Though only of *certain* aspects of the context. For details, see my "The Objective Dimension of Believing *de re*", *Critica*, XXIV, No. 70, 1992, I, 2 and II, 2.

⁷ The systematic issue of what beliefs are, my position regarding it, and thus my usage of the notion of a (sentential) belief, are *peripheral* to the theory of reference proposed below. For the purposes of the theory of reference proposed here, all that is needed is willingness to consider sentences which the cognizer accepts (at a given time). While I consider these his beliefs, the nomenclature is unimportant. Whether or not one should consider these sentences the objects of the believing-that propositional (sentential) attitude (as I do) is an *entirely* separate matter. Readers who hold different views on what beliefs are may proceed by considering my usage of the term 'beliefs' to be short for 'sentences believed', a matter of technical terminology for the purposes of the theory of reference presented here.

⁸ The notion of belief I employ is such that if '*p*' is *r*'s belief, then *r* believes (*de dicto*) that *q* for any (English) '*q*' which is an adequate paraphrase of '*p*'. (The relation between *r*'s believing '*p*' and *r*'s being disposed to assent to '*p*' in the 'right' circumstances is thus a *nomological* rather than a conceptual relation.) An approximation to this notion of belief would be the notion of an accepted sentence, interpreted more liberally than as covering just conscious occurrent episodes of acceptance: 'there are 4 walls in my study' has been a belief of mine for quite a while (and I accordingly believe that there are 4 walls in my study) even though I have never, up to now, consciously entertained this sentence. I will not, however, consider here non-sentential beliefs, e.g., non-sentential symbolic representations. For more on my conception of belief and the analysis of belief sentences (*de dicto* and *de re*), cf my "Beliefs and Believing" (*Theoria*, LII, 3, 1986); "Kripke's Belief Puzzle" *Midwest Studies in Philosophy*, Vol. X, 1986, pp. 287–386; "The Hesperus-Phosphorus Case" (*Theoria*, L, 1, 1984); "Quine and Modalities *de re*: A Way Out?", esp. section VII, and "Reference and Belief", *Philosophy and Phenomenological Research* (forthcoming), sections 7, 8, 9.

⁹ The notion of sentential belief may in various cases give way to the broader notion of 'latent belief', e.g., roughly speaking, a belief the speaker would possess if he had appropriately richer linguistic (and perhaps logical) resources. (This is *not* a definition.) Cf section 10 below, notes 7 and 8 above, and note 48 below.

¹⁰ For elaboration, see sections 1, 2 of "Mediated Reference and Proper Names", *Mind*, Vol. 102, October 1993, pp. 1–18, which also elaborate on the last point of the preceding paragraph.

¹¹ Cf my "The Hesperus-Phosphorus Case", section III.

¹² Though not referentially untainted – see below.

¹³ This claim exhibits quite a bit of the thrust of the Convergence Principle in cases of reference by proper names – see section 5.

¹⁴ In general, this restriction can be relaxed, but then the claim must be qualified –

'possesses or latently possesses'. A cognizer might latently possess a definite description if he has the concepts involved but lacks the linguistic terms. For more on latency, see section 10.

For a detailed discussion of mediated reference, though along very different lines, cf Michael Devitt, *Designation*, Columbia University Press, 1981. For my analysis of this phenomenon, see "Mediated Reference and Proper Names".

¹⁵ In what follows I also ignore the phenomenon of mistaken parasitic beliefs, which is typical of cases of conflation of different individuals. I explored this phenomenon in "Divided Reference".

¹⁶ Recall that the discussion here is taken as context-relative throughout, as reflected in the admissible use of 'I' and 'now' in anchors; see below, end of next section.

¹⁷ Extending this condition to latent beliefs is necessary in various cases if the restriction to conceptually and linguistically competent cognizers is relaxed; cf section 10.

¹⁸ Some of the force of this principle should be driven home through the account of the emergence of reference by singular terms which I offer in the rest of this paper.

¹⁹ Hence the reductive conception of reference by singular terms in general to strict anchors (see below), which rests on the observation of the recursive structure of the mechanism of reference. Mediated reference is in turn conceived as reducible to unmediated reference. Cf "Mediated Reference and Proper Names". (In view of the Convergence Principle, I reject the view that there is ultimate reference to objects via demonstratives. I will not, however, elaborate further here on reference by demonstratives.)

²⁰ Thus, even though in this paper only belief ascriptions are explicitly discussed, the reductive conception reflected here applies to attitudinally *de re* constructions in general, and not merely to sentential (propositional) ones. The *de re* dimension of attitudinally *de re* constructions is thus conceived as reducible, either to the reference relation (as in the reduction form patterned after the exportation inference), or in ways which circumvent recourse to the reference relation (as in the case of the seeing constructions; see end of section 6).

Note that the construction in question is presumably also referentially dependent; see below.

²¹ Stephen Schiffer seems content with an ultimate resort to *de re* locutions (cf his "Naming and Knowing", *Contemporary Perspective in the Philosophy of Language*, P. French et al. (eds.), University of Minnesota Press, 1978), as do John Perry and Tyler Burge (though Burge's position does not stand in clear contrast with the one presented here, since on his conception of the *de dicto* – *de re* distinction, the *de dicto* form is purely conceptual and thus devoid of any indexical elements – unlike the conception adhered to here).

²² Note that seeing *x* doesn't imply having reference to *x*. When *r* sees that *a* is *F*, *r* does have reference to *a* (and seeing that indeed implies knowing that). However, as I argued in my "Seeing that and Seeing As" (*Nous*, XXVII, 3, 1993, section VII), not every case of seeing *x* is a case of seeing that, and thus not every case of seeing *x* need

be a case of knowledge: Only cases of seeing x in which r believes he sees y , where $x = y$, are.

²³ Cf my "Seeing that and Seeing as". Definite descriptions such as 'the object my eyes are focused on' (which is referentially untainted) and 'the object I see in front of me' (which is referentially tainted, though not referentially dependent) play interchangeable roles in sustaining the Principle of Reference Eliminability when applied to particular cases. The requirement below that anchors be referentially untainted can thus be relaxed, so that anchors must be definite descriptions which, if referentially tainted, do not include referentially dependent *de re* locutions.

²⁴ Cf note 23.

²⁵ More precisely: from strict anchor reference (see below); the cases of mediated reference are derived from unmediated reference.

²⁶ Though not necessarily exclusively: reference is normally generated through various strict anchors; see below.

²⁷ In such cases, through a source. This sort of causal connection is in turn usually quite intricate as well; cf. "Mediated Reference and Proper Names".

²⁸ The analysis should fit, but of course not logically imply, the Convergence Principle: the latter is formulated in referential terminology. Rather, the upshot of the inquiry should be the *thesis* that unmediated reference is generated by the definite descriptions captured by the analysis we are trying to formulate, and that in particular they satisfy the Convergence Principle in its strong form.

²⁹ Some readers may be more comfortable with a formulation such as 'coming to accept sentences of the form' instead of 'acquiring beliefs of the form'.

³⁰ Of course, beliefs *de dicto* (i.e., sentences he accepts). *De dicto* beliefs cover beliefs *de se* (and similarly for their respective ascriptions), since the definite descriptions in question in sentences the subject accepts may include the first person pronoun and its cognates. Cf "Beliefs and Believing", section 8.

³¹ Even before the contestants have been selected.

³² I assume the transitivity (and symmetry) of significant causal connectedness in this case.

³³ I thus avoid the stronger locution ' x causes y ', which can sometimes be taken as coming close to the relation of 'being the cause'. In utilizing the notion of 'a cause' I rely on the distinction between causes and mere conditions, and on the observation that not every prior set of jointly sufficient conditions must yield a cause.

Note too that the events related by the relation of being-a-cause are taken here to be narrowly individuated under the specification of the description used.

³⁴ For the modal character of this construction, cf my version of essentialism of origins in "Quine and Modalities *de re*: A Way Out?", section X, and my *A Theory of Counterfactuals*, Hackett Publishing Co., 1986, ch. 9, section IV, 3.

^{34.1} For my view, see the references in note 53.

³⁵ His having the feature of being the winner became causally efficacious only after

the winner in fact won the contest, which is distinctly later than time *t*. I assume the temporal priority requirement for the relation of being a cause.

³⁶ A qualification to be added here is that '*ixHx*', the candidate for strict anchor, not be 'informationally inflated' beyond what it takes to secure its denotation (in the context of its employment).

³⁷ The man in the corner reached for the martini glass and filled it with water (and was *then* observed in the corner by our subject) right after the martini drinker placed it there.

³⁸ *De dicto*.

³⁹ But note that one may of course know (*de dicto*) '*a* exists', for definite descriptions '*a*' which are not strict anchors (or even anchors), e.g., 'the shortest spy'. Note too that one need not have knowledge *de dicto* of the form '*a* exists' for an anchor '*a*' which is not a strict anchor. Take, for instance, a case in which 'the man in the corner' is a strict anchor for *r*, and in which it just dawned on *r* (correctly, though for no proper reason) that the man in the corner is the only spy who can lift 300 pounds. The latter definite description is an anchor (it denotes the man in the corner), but surely not a strict anchor, and indeed *r* need not know: there is a (unique) spy who can lift 300 pounds.

⁴⁰ What is required in the strict anchor condition is knowledge *de dicto*. Truth conditions for the ascription of knowledge *de dicto* (with the singular term in the content clause being a definite description, as in the strict anchor condition) depend on the denotational function of the predicates involved, but not on the reference of the singular term (by neither subject nor ascriber). Thus, no resort to reference is involved, and no circularity.

⁴¹ To have a better sense of the difference between identity beliefs and the reference conception put forth here, note that Hintikka suggested a premise requiring having an opinion who as the extra premise for exportation (cf end of section 1). But '*ixHx*' being a strict anchor (for *r*) doesn't imply that *r* knows who (or has an opinion who) *ixHx* is, or vice versa. See my example concerning the purse snatcher in my "The Objective Dimension of Believing *de re*", section 1, where 'the purse snatcher' is a strict anchor, though the subject doesn't know or even has an opinion who he is. Conversely, the cognizer may know who the winner of the piano competition will be (say, by knowing that the winner will be the one to play the last, or the representative of a certain country, based on the known prejudices and dispositions of the judges), without being in a position to refer to or have *de re* beliefs about any of the contestants. More generally, knowing who is notoriously context dependent, whereas the strict anchor condition isn't. In "Quine and Modalities *de re*: A Way Out?", section 1, I examined in detail the major differences between reference and knowing who. In particular, I argued there that knowing who isn't sufficient for exportation, and hence doesn't yield reference, whereas the satisfaction of the strict anchor condition yields reference and thus *de re* beliefs. Consequently, the strict anchor condition neither implies nor is implied by knowing who. For further detailed elaboration of my critique of the knowing who condition and its non-suitability for exportation, see "Quine and Modalities *de re*: A Way Out?", sections 1-2, and "The Objective Dimension of Believing *de re*", sections 1-2.

⁴² The sentence after the colon has to be formulated in a language *r* speaks. I assume in the present discussion that the pertinent language he competently speaks is English. Otherwise, appropriate adjustments have to be made.

I use the knowing-'*p*' construction (or knowing: *p*) in order to emphasize the *de dicto* character of the knowledge involved and avoid the loss of precision inherent in paraphrasing. '*r* knows: *p*' implies that *r* knows that *p*. Thus, *r* knows that *p* iff for some '*q*', *r* knows '*q*' and '*q*' is an adequate paraphrase of '*p*' (when '*p*' is of course in English); cf "Beliefs and Believing".

One may further require that the knowledge in question not be mediated in the sense of acquired in a full-fledged form through total epistemic reliance on a particular source. This would serve, among other things, to ensure that we are confined to cases of unmediated reference which concern us here.

⁴³ For further clarification of the structure of the strict anchor condition as attitudinally (epistemically) *de dicto* but modally *de re*, see "Reference and Belief", section 2.

⁴⁴ The limitation to competent cognizers excluded this sort of failure.

⁴⁵ The previous note applies here as well. We are thus considering a relaxation of the competence requirement.

⁴⁶ Although he possesses (or is on the verge of possessing) the concepts involved.

⁴⁷ It is always the cognizer's latent possession of a *particular* belief that we consider (in inquiring whether he has reference to an object) or his latent possession of a *particular* concept (in view of other conceptual ingredients that he possesses; even, e.g., the concept of being a cause), or his latent possession of a *particular* definite description.

⁴⁸ Above (cf note 14) I mentioned latent possession of definite descriptions (when the subject fell short of full competence). Cases of latent possession of definite descriptions, like cases of latent knowledge, are cases in which the believer has all it takes for there to be full-fledged possession, *except* for some particular and relatively minor deficiency of a certain sort. Such latent possession would obtain if he possesses the concepts involved but not the terms, or even if he possesses conceptual ingredients which would suffice, for him, with minimal acumen, to acquire those concepts. We can accordingly consider a definite description which he latently possesses as qualifying as a *latent strict anchor* for him if he has in his epistemic system ingredients (including images, verbal elements, etc.) bearing the right causal relations to the object in question which would suffice to make such a definite description qualify as a strict anchor.

The clarification of the notion latency (and in particular of latent knowledge) provided here is obviously incomplete. Cf my "Reference and Belief", section 3, and my "Knowledge as Justificational Preservation", *Erkenntnis* (forthcoming).

⁴⁹ Accordingly, the paradigmatic case which involves (full-fledged) knowledge, beliefs and possession of definite descriptions can thus be extended to cases involving latent knowledge, latent beliefs and latent possession of definite descriptions.

One might be tempted to further illustrate this notion by using a counterfactual formulation, e.g., to the effect that *r* latently knows '*p*' in case *r* would have known '*p*' (*simpliciter*) had he understood '*p*' and had he come to possess it as a belief by basing

it in a certain way on an evidential base he in fact possesses. But the truth-value of such *de re* counterfactuals are too dependent on *r*'s particular history and surrounding circumstances in a way which need not be appropriately related to whether he latently knows '*p*' (if, for instance, the most likely ways for the antecedent to have come about would involve acquisition of substantial pertinent information on his part; cf *A Theory of Counterfactuals*, ch. 9, section I). In particular, such a formulation does not bring out the requisite 'closeness' between *r*'s actual state (the level of his conceptual adequacy and his evidential base) and the hypothetical state. Counterfactuals would therefore not be the right tool to use for an account of latent knowledge (or, for that matter, accounts of other related notions). Cf. also my "Counterfactuals Ambiguities, True Premises and Knowledge", *Synthese*, vol. 100, no. 1, July, 1994.

⁵⁰ Note 42 applies here as well.

⁵¹ Here I ignore cases of divided reference; see my "Divided Reference".

⁵² Cf. his "Speaker Reference and Semantic Reference", in P. French et al., 1979.

⁵³ Or alternatively the relation of Overall Positive Causal Impact; cf. my "Some Positive Causal Impact" (forthcoming), and my "Overall Positive Causal Impact", *Canadian Journal of Philosophy*, vol. 24, no. 3, June, 1994.

⁵⁴ Otherwise, even if the notion of cause involves an element of context-dependence and interest-relativity, it may still be that this notion can be decomposed into an objective component and an interest-relative and context-dependent component, and the reference relation might depend only on the first.

⁵⁵ I wish to express my gratitude to those who heard this paper delivered and made useful comments. In particular, I am indebted to the following people for reading earlier drafts and allowing me the benefit of their comments: Kent, Bach, Keith Donnellan, David Kaplan, and Hilary Putnam.

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