A Neo-Hintikkan Theory of Attitude Ascriptions
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Abstract
In the paper, I develop what I call the “Neo-Hintikkan theory” of belief sentences. What is characteristic of this approach is that the meaning of an ascription is analyzed in terms of the believer’s “epistemic alternatives”: the set of worlds compatible with how the believer takes the world to be. The Neo-Hintikkan approach proceeds by assuming that (1) individuals in believers’ alternatives can share spatio-temporal parts with actual individuals, and (2) ascribers can refer to individuals in believer’s alternatives in virtue of their perceptual or causal interaction with the spatio-temporal parts these “believed individuals” share with actual individuals. The guiding idea underlying this view is that the source of substitutivity failure in certain central cases is that believers have put the spatio-temporal parts of the objects they have encountered together in the wrong way.

There is a sense in which failure of substitutivity phenomena are unsurprising. Consider the following fictional example: ‘The French Ambassador believes that Sir Percy Blakeney is a foppish dandy’ is true while ‘The French Ambassador believes that the Scarlet Pimpernel is a foppish dandy’ is false, despite the fact that ‘Sir Percy Blakeney’ and ‘the Scarlet Pimpernel’ corefer. A natural response would be to point out that this phenomenon arises simply because the French Ambassador does not realize that Sir Percy is the Scarlet Pimpernel. And this response is essentially right. But, of course, this is not the end of the story. After all, we need an account of the meanings or contents of attitude ascriptions which explains why the two ascriptions to the French Ambassador differ in truth value.¹

What is odd is that, despite the obvious explanation of failure of substitutivity phenomena, the standard approach to the, strictly speaking, semantic issue is to take the problem to be one of fineness of grain: the (conventional) referent of a name is just too coarse-grained to serve as its meaning or content when it occurs in a belief context. Instead, the meaning should be taken to be something more fine-grained, such as a Fregean sense, or a structured intension, or even a representation (see, e.g., [2, 3, 14, 13]). The trouble with this strategy is that no matter what type of entity is chosen to serve as the meaning of names, when they occur in attitude ascriptions, it is always possible to find examples of substitutivity failure of names which have the same “fine-grained” meaning.²

There is, however, another approach to the semantic issue which is more congruent with the natural explanation of the phenomenon mentioned above. What I have in mind is the “Believed-World” approach developed and defended by Hintikka.³ What is characteristic of this approach is that the meaning of an ascription is analyzed in terms of the believer’s “alternatives”: a set of worlds which are compatible with how the believer takes the world to be. What I hope to do in this paper is develop this idea in a certain direction. In particular, my goal is to present a semantic theory which captures the idea that substitutivity phenomena stem from the fact that believers have put the temporal parts of things they have encountered together in the wrong way.

¹Or, perhaps, a theory which explains away the intuition that such pairs of ascriptions do so differ. For present purposes, I am simply going to assume that our intuitions here are correct. That is, I am simply going to ignore that Direct Reference theory of attitude ascriptions defended by such folk as Nathan Salmon and Scott Soames.
²For a worked out version of this argument, see my [1].
³See, e.g., [6]. [8, 15], have also defended versions of this theory.
§1) According to Hintikka, associated with a believer are a set of possible worlds compatible with what s/he believes. Hintikka calls these the “alternatives” to the actual world for the believer in question. Each of these worlds is what is described by a “complete novel”, a maximally consistent set of sentences of a language ([5, p. 143], and [7, p. 127]). Hintikka’s view, in a nutshell, is that an ascription is true just in case the complement sentence is true in all of the believer’s alternatives. We can, however, be a little more precise than this. Let ‘$A_{a,t}$’ abbreviate ‘the alternatives of believer $a$ at time $t$’ and ‘$Bel_{a,p,t}$’ abbreviate ‘$a$ believes at time $t$ that $p$’. This allows the account of belief ascriptions to be represented as follows:

$'Bel_{a,p,t}$ is true iff $'p'$ is true in every member of $A_{a,t}$.

Consider, for example, the ascription ‘Fred believes that George Eliot wrote eight novels’. This ascription is true, on Hintikka’s view, just in case the complement sentence ‘George Eliot wrote eight novels’ is true in all of Fred’s alternatives.

The meanings or contents of expressions occurring in ascription complements are, on this view, functions from worlds to appropriate extensions at those worlds. So, for example, the meaning of a name is a function from worlds to individuals, and the meaning of a $n$-place predicate is a function from worlds to sets of $n$-tuples. These functions yield an interpretation of the complement of an ascription relative to any given member, $w$, of the believer’s set of alternatives. That is, relative to $w$, there will have to be an assignment of individuals to $w$ to any referring expressions in the complement sentence and an assignment of a set of $n$-tuples of individuals in $w$ to each $n$-place predicate in the complement. Given an interpretation, truth-in-$w$ can be defined in terms of satisfaction in the usual way. For example, ‘George Eliot wrote eight novels’ is true in one of Fred’s alternatives, $w$, just in case in $w$ the referent in $w$ of ‘George Eliot’ falls within the extension in $w$ of ‘$x$ wrote eight novels’.

Failures of substitutivity of coreferential referring expressions are explained on Hintikka’s view as follows. Suppose ‘Fred believes that George Eliot wrote eight novels’ is true and ‘Fred believes that Mary Ann Evans wrote eight novels’ is false, despite the fact that ‘George Eliot’ and ‘Mary Ann Evans’ corefer. This is because, although the functions which serve as the meanings of these two names in ascriptions to Fred have the same value in the actual world, they differ in value in at least one of Fred’s alternatives. And, in at least one of these “non-coreferential worlds”, the referent of ‘Mary Ann Evans’ does not fall within the extension in that world of ‘$x$ wrote eight novels’.

I endorse the basic Hintikkan framework. There is a difficulty with Hintikka’s theory, however. And this concerns his account of exactly which function serves as the meaning of a singular referring expression in an ascription complement on any given occasion of use. According to Hintikka, the meaning of a name in a belief context function corresponds to one of the believer’s “methods of recognizing individuals” [6, p.160]. This is reminiscent of the sort of descriptivism that has fallen into disfavour since the publication of Naming and Necessity [9] and one might, therefore, worry that Hintikka’s view runs afoul of similar difficulties. After all, it is far from obvious that a believer’s methods of recognition would pick out a unique individual in all her/his alternatives. Another worry, however, concerns how the

5 Or, more precisely, the value of the function which serves as the meaning of ‘George Eliot’ in ascriptions to Fred for argument $w$.

6It is worth noting that I do not endorse Hintikka’s account of quantifying in, which invokes the notion of “individuating functions”.

7Strictly speaking, only “individuating functions”—those function which pick out the same individual in all of a believer’s alternatives—correspond to methods of recognizing individuals, according to Hintikka. Presumably, non-individuating functions correspond to those methods believers use to pick out individuals, but which do not suffice for recognizing them.

8One might also worry that since we identify people by appeal to their contingent properties, Kripke’s modal arguments also come into play here. In [1], I argue that there are difficulties in the application of these sorts of arguments to belief contexts.
ascriber, by means of his/her use of a name, manages to pick out one of the believer’s methods of recognition and which method of recognition s/he manages to pick out. And Hintikka offers us no answer here.

What I want to do here is to remedy this defect in Hintikka’s theory. In effect, my project is to supplement Hintikka’s “theory of meaning” with my own “theory of referring”. My guiding idea is that the source of substitutivity failure in certain central cases is that believers have put the temporal parts of the objects they have encountered together in the wrong way. The reason that, for example, the ancient astronomers did not believe that Hesperus is Phosphorus is that they did not realize the temporal parts of the celestial body they observed the evening sky were parts of the same enduring object as were the temporal parts of the celestial body they observed in the morning sky. This idea gets cashed out as follows in my theory of referring:

1. Individuals in believers’ can share temporal parts with actual individuals; and
2. ascribers can refer to individuals in believers’ alternatives in virtue of their perceptual or causal interaction with the temporal parts these “believed individuals” share with actual individuals.

I will address each of these claims in turn.

§2 In this section, my goal is to develop an account of believers’ alternatives and, in particular, the individuals that populate such worlds. For present purposes, this involves the following. First, since these individuals are to serve as the values of functions, there needs to be a principle of their individuation. And second, an account needs to be given regarding how believed and actual individuals could share parts. My approach here will involve treating alternatives as sets of Russellian propositions. A Russellian proposition is a structured abstract entity which can have properties, relations, and actual individuals are constituents. For simplicity, I will treat these entities as ordered sequences of n-adic relations and individuals. So, for example, the proposition that Joe is short can be taken to be the ordered sequence <being short; Joe>and the proposition that Mary is taller than Joe can be taken to be <being taller than; Mary, Joe> (which is distinct from <being taller than; Joe, Mary>).

So, on my view, associated with a believer at a given time are a set of worlds—alternatives to the actual world for the believer. And each world consists of a set of Russellian propositions. The individuals populating alternatives correspond to the propositions expressed by sentences of the form “there is a unique F”. We can treat such propositions as sequences of the form <unique; F-ness>, where ‘unique’ names a second order-property which the first-order property of being F bears just in case there is a unique individual that is F. If an alternative contains <unique; F-ness>, then corresponding to this proposition is an abstract individual which inhabits the alternative. In particular, it will be the pair consisting of said property, and the world in question—<F-ness, w>.

10For a detailed account of Russellian propositions, see [4, Chapter #4].

11The reason for formulating things in terms of sets of worlds instead of a single world is to make room for the distinction between failure to believe and disbelief or, if you will, agnosticism and atheism. A proposition p is epistemically possible for—but not believed by—a given believer iff it is true in some, but not all, of her/his alternatives. p is disbelieved by a believer iff if is false in all of her/his alternatives.

12Hintikka takes alternatives to be both (i) maximally consistent and (ii) compatible with a believer’s beliefs. This could prove problematic if one takes seriously the idea of an irrational believer with genuinely incompatible beliefs. To avoid this worry, I will talk of worlds or sets that are (i) “complete by a believer’s lights” and (ii) which include the believer’s beliefs.

13One might have the following worry at this point. It could turn out that an alternative, w, contains the propositions that there is a unique F, that there is a unique G, and that the F is the G. And this seems to imply, given what I’ve said, that <F-ness, w> is numerically identical to <G-ness, w>. There are, of course, any number of stipulations I might invoke to avoid this embarrassment. For example, I might put the following constraint on alternatives: any alternative which contains the propositions that there is a unique F and that the F is the G cannot contain the proposition that there is a unique G. To those inclined to respond
What remains to be done here is to explain how, and in what sense, actual individuals can share temporal parts with the inhabitants of alternatives. The key here is that since temporal parts of individuals are themselves individuals, they can serve as the constituents of Russelian propositions. In a straightforward sense, of course, this enables temporal parts of individuals to be inhabitants of alternatives, but my account of how they can be parts of said individuals is slightly more complex. Let us suppose that \( p \) is a spatio-temporal part of an actual individual \( a \). And let us suppose that the alternative we are considering, \( w \), contains the proposition \(<\text{unique; } F\text{-ness}>\). Finally, let us represent the proposition that \( p \) is part of an \( F \) as \(<\text{part; } F\text{-ness, } p>\), where \( \text{‘part’} \) names a relation that holds between a property and an individual just in case the individual is a temporal part of an individual that is \( F \). If \( w \) contains the propositions \(<\text{unique; } F\text{-ness}>\text{and}\ <\text{part; } F\text{-ness, } p>\text{then } a \text{ and } <F\text{-ness, } w>\text{share } p.

Consider, for example, the temporal part of a woman, Ruby, that exists on Tuesday. Let’s call this part of Ruby “Ruby Tuesday”. And let’s suppose that an alternative—let’s call it “Main Street”—contains the propositions that there is a unique exile and that Ruby Tuesday is a temporal part of an exile. In these circumstances, the actual individual, Ruby, and the inhabitant of Main Street, \(<\text{Exilehood, Main Street}>\), would share Ruby Tuesday as a temporal part.

§3) One question a theory of attitude ascriptions needs to address concerns what sorts of entities serve as the meanings of referring expressions in ascription complements. On my view, these are functions from worlds to individuals. A separate question concerns which particular entity serves as the meaning of a given referring expression on an occasion of use. And on my view, it is the function whose value at a given world is the referent of the referring expression in question at that world. What needs to be taken up here, therefore, is how an actual token referring expression can have a referent in a believer’s alternative, and exactly which inhabitant of said alternative is the referent in question. I am going to proceed here as follows. First, I am going to give an account of the use of referring expressions to pick out individuals in the actual world. And second, I will show how this account enables us to refer to individuals in believed worlds. For present purposes, I am going to focus on demonstratives, like ‘this’ or ‘that’, and demonstrative uses of pronouns. In subsequent sections, I take up the thornier issues having to do with proper names.

Consider the following demonstrative use of the pronoun ‘he’: during a reception at the French embassy, the French Ambassador says ‘He is a foppish

\(^{14}\)Of course, conceptual role theorists would find this to be tendentious.

\(^{15}\)Note: according to Stalnaker, the referent of a referring expression at a given alternative is the referent it would have had had it been used in the world in question [15]. On my view, in contrast, the actual token use of the referring expression in question has a referent in some alternatives (in addition to its actual referent).
dandy’ while gesturing towards (or otherwise indicating) Sir Percy Blakeney. The referent of ‘he’ in such circumstances would be the individual gestured towards, namely Blakeney. In general, the referent of a demonstrative use of a referring expression is the individual gestured towards in the context of utterance. What I want to emphasize here is that strictly speaking what one gestures towards when using a demonstrative is not typically the whole enduring individual that is referred to. Instead, it is a temporal part of the referent of the demonstrative. In particular, it is that part of the referent that is present in the context of utterance. So, for example, the French Ambassador’s use of ‘he’ has Sir Percy as its referent due to the fact that he gestured towards the temporal part of Blakeney that is present during the reception. Moreover, the Ambassador could have used ‘he’ to refer to Blakeney in another context of utterance by means of gesturing towards a different temporal part of him. For example, he could refer to Blakeney by uttering ‘He is a danger to France’, by gesturing towards (or otherwise indicating) the temporal part of Sir Percy present during another heroic rescue of French aristocrats from Madame Guillotine.

This account of the reference of demonstratives clears the way for their having referents in alternatives. The reason for this is, of course, because actual individuals and the inhabitants of alternatives can share temporal parts. If reference to an actual individual can proceed by means of gesturing towards the temporal part of that individual present during the context of utterance, reference to an inhabitant of an alternative can proceed in the same way. After all, one can simply gesture at a part of it which it shares with an actual individual, while using a demonstrative. Consider once again the French Ambassador’s utterance of ‘He is a foppish dandy’ while gesturing towards (or otherwise indicating) Sir Percy Blakeney during a reception at the French embassy. Let’s refer to the temporal part of Sir Percy present during the reception “Sir Reception-Percy”. Moreover, let’s suppose that one of the Ambassador’s alternatives, w, contains the propositions that there is a unique F and that Sir Reception-Percy is a part of the F. On my view, the Ambassador’s use of ‘he’ would have, in addition to its actual referent, a referent in w, namely the abstract individual <F-ness, w>.

The account of reference I have in mind here is importantly similar to Nunberg’s theory of indexicality [12]. According to Nunberg’s analysis, the extension of an indexical expression in a given context of utterance is determined by three distinct meaning components: a deictic component, a classificatory component, and a relational component. (Note: meaning in this context does not refer to a term’s truth-conditional contribution, but to the rules determine its truth-conditional contribution modulo a given context of utterance). The deictic meaning-component is a function from contexts of utterance to an element (or elements) of the context, which Nunberg calls the “index”. For example, the deictic component of both ‘I’ and ‘we’

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16I am, of course, contrasting demonstrative uses of referring expressions with anaphoric uses.

17Of course, strictly speaking, fictional characters lack temporal parts. For illustrative purposes, I am simply going to ignore this issue.

Things are, of course, more complex than I have let on here. Any given temporal part of an individual is itself an individual as well being a temporal part of any number of what the demonstrative in question is. To resolve this worry, we need to suppose that explicit or implicit appeal is made to an appropriate sortal. In the ordinary case, the presumption of a common sense ontology of tables and chairs and plants and animals will do the trick. There are, however, worrisome cases in which distinct common sense objects—e.g., a wooden box and the pieces of wood out of which it is composed—arguably share temporal parts.

18There are (at least) two worries that might arise at this point. First, a single temporal part might be shared with any number of wild and wooly inhabitants of a given alternative. And second, there might be mismatches between the temporal parts of individuals gestured at and the temporal parts of individuals shared by inhabitants of believed worlds. My current inclination regarding the first worry is to simply stipulate that a given temporal part of an actual individual can occur as a constituent of only one proposition in an alternative. My response to the second worry is to point out that there is no problem as long as the temporal part gestured at is itself a part of the temporal part that is shared by an inhabitant of an alternative. A discussion of the other sorts of mismatches will ultimately occur as part of a discussion of ascriptions involving demonstrations of unencountered parts of individuals.

19Thanks to Anne Bezuidenhout for pointing this out to me.
would be the function whose value in a context of utterance is the speaker; and the deictic component of both ‘tomorrow’ and ‘yesteryear’ would be the function whose value is the time of speaking. The *classificatory* meaning-component is a feature (or a set of features) that must be instantiated by the interpretation. The classificatory component of ‘I’, in all (ordinary?) contexts, would be is the property of being an individual person while that of ‘we’ is the property of being a group of people. Finally, the *relational* meaning-component is a relation that has to hold between the index and the interpretation. For example, the relational component of ‘I’, in all (ordinary?) contexts, would be the relation of *being identical to* while that of ‘we’ is the relation of *being included in*. On my view, the deictic component of the meaning of a referring expression in an ascription complement is a function from contexts to temporal parts enduring individuals. And the relational component of the meaning of referring expression so situated is the relation of *being a temporal part of*. As we shall see below, this basic analysis can extended to apply to proper names — it is not restricted to the meanings of indexicals.

§4) The French Ambassador does not realize that Sir Percy Blakeney is the Scarlet Pimpernel. He believes that there are two distinct people, one a foppish dandy, the other a danger to France. More specifically, he does not realize that the temporal part of Blakeney he encountered during the reception at the French embassy is a part of the same enduring person as the part of Blakeney he encountered during the heroic rescue of the French aristocrats. He has put the temporal parts of Blakeney he has encountered together in the wrong way. Each of the French Ambassador’s alternatives contains two people: one a foppish dandy—no danger to France—composed in part out of the part of Blakeney encountered at the reception; the other a danger to France—no foppish dandy—encountered during the heroic rescue.

Suppose that during a reception at the French embassy, while observing Sir Percy Blakeney reciting to the French Ambassador a rather offensive poem about the inability of the French authorities to capture the Scarlet Pimpernel, someone were to make the following ascription, while gesturing towards Blakeney: ‘The French Ambassador believes that he is a foppish dandy’. The meaning of the demonstrative ‘he’ on this occasion of use would, on my view, be the function whose value at a world is the individual composed in part out of the part of Blakeney present during the reception. And since at each of the French Ambassador’s alternatives this is an individual who is a foppish dandy, the ascription would be true. But suppose that during the heroic rescue of the French aristocrats, while observing the French Ambassador’s look of frustration as he helplessly watches, someone were to make the same ascription, while gesturing towards Blakeney: ‘The French Ambassador believes that he is a foppish dandy’. The meaning of the demonstrative ‘he’ on this occasion of use would be the function whose value at a world is the individual composed in part out of the part of Blakeney present during the rescue. And since at each of the French Ambassador’s alternatives this is an individual who is no dandy, the ascription would be false. And this despite the fact that the actual referent of the demonstrative ‘he’ on both occasions of use is the same person, Sir Percy Blakeney.

§5) But suppose an ascriber makes an ascription in which s/he demonstrates a temporal part of an individual which the believer has not encountered. For example, suppose that Blakeney, in his “Scarlet Pimpernel” disguise, rescues some French aristocrats in the absence of the French Ambassador. And suppose that someone, while gesturing towards Blakeney, says ‘The French Ambassador believes that he is a danger to France’. This ascription would, intuitively, be true. But since the Ambassador has not encountered the temporal part of Sir Percy in question, it would not be a part of any individual in any of the Ambassador’s alternatives, and, hence, the use of ‘he’ at issue would have no referent in any of the Ambassador’s alternatives. The Neo-Hintikkan theory, as it stands, implies that the ascription is false.

The reason for our intuition that the above ascription is true is, I take it, roughly as follows. If the French Ambassador had been present during this latest rescue of aristocrats, he would have recognized Blakeney as that royalist pain in the side of the revolutionary regime and, as such, would
have judged him to be a danger to France. And the reason he would have recognized Blakeney as “the Scarlet Pimpernel” is because Blakeney at that time possesses those contingent features that the French Ambassador uses to recognize or re-identify the man he takes to be a danger to France.

Corresponding to each individual in any of a believer’s alternatives (at least those which share parts with actual individuals) is the believer’s method of recognizing or re-identifying that individual. And, typically, there are temporal parts of actual individuals, that have not been encountered by a given believer, but which would be recognized by the believer using one of his/her methods of recognition were s/he to encounter them. Now suppose the following three conditions are met:

1. An ascriber makes an ascription in which s/he demonstrates a temporal part, \( p(a) \), of an individual which the believer has not encountered;
2. some other temporal part, \( p(b) \), of the actual referent of the demonstrative is shared by at least one individual in at least one of the believer’s alternatives; and
3. \( p(a) \) has the feature(s) used to recognize the individual of which \( p(b) \) is a part.

In such circumstances, the ascriber conveys\(^{20}\) the information s/he would have expressed had s/he demonstrated \( p(b) \), rather than \( p(a) \), when uttered the ascription.

Suppose that the Sir Percy Blakeney, in his “Pimpernel” disguise, rescues some aristocrats on both Tuesday and Wednesday, and that the French Ambassador is present only during the Tuesday rescue. “Tuesday-Percy” would be a part of an individual in each of the Ambassador’s alternatives who is a danger to France, while “Wednesday-Percy” would be a part of no individual in the any of these worlds. Now suppose that on Wednesday, while gesturing towards Wednesday-Percy, someone says ‘The French Ambassador believes that he is a danger to France’. Since Wednesday-Percy bears the feature that the French Ambassador presumably uses to recognize the man he believes to be a danger to France—that trademark Scarlet Pimpernel disguise and behaviour—the ascriber conveys, by means of the ascription, the information s/he would have expressed had s/he demonstrated Tuesday-Percy when s/he uttered it. And, as we saw above, the neo-Hintikkan theory implies that this information is true, as intuition dictates.

\(^{20}\) I am using “convey” here as an umbrella term for information literally expressed or pragmatically imparted or even merely intended. And I remain neutral in the case at hand on how the information in question is conveyed.

§6) A natural question which arises at this point concerns how the neo-Hintikkan theory handles ascriptions whose complements contain proper names rather than demonstratives. In a sense, the answer to this question is quite straightforward. As with demonstratives, the meaning of a name in an ascription complement is a function from worlds to individuals. And the particular function which serves as the meaning of a name on an occasion of use is the function whose value at a given world is the referent of the name, on that occasion, at that world. But, of course, what needs to be addressed here is how an actual token use of an name could have a referent in a believer’s alternative. And in order to address this, I need to address the reference of proper names in general.

It is worth noting that there are two familiar approaches to proper names which are not amenable to the neo-Hintikkan theory: the “tag” theory and the causal-historical theory. According to the tag theory, names are mere tags, arbitrarily (perhaps conventionally) attached to whole enduring individuals. On any occasion of use, the referent of a name is the individual whose tag it is. But beyond this, there is no systematic connection between a name and its referent. The trouble here, for my purposes, is that given the tag theory, there is no basis for taking any individual inhabiting an alternative to be the referent of an actual token use of a name in that world. After all, the actual referent of a name does not inhabit any believer’s alternatives. And given the absence of any systematic name/referent connection, there is no basis for taking any individual other than the actual referent to be the referent of a name in a given alternative.

According to the causal-historical theory, an actual token use of a name and its (actual) refer-
ent stand at opposite ends of a causally linked sequence of events. The first event in the sequence is a naming ceremony, whereby an individual acquires a name. Each subsequent event in the sequence involves a reference-preserving use of the name (or, perhaps, a phonetically distinct variation of it). The referent of the current use of the name is the individual that acquired the name during the initial event in the sequence. Now given that only a temporal part of the actual referent of a name is present during the naming ceremony whereby it acquires the name, it might be thought that the causal-historical theory of names could be incorporated into the Neo-Hintikkan theory of ascriptions. After all, one could simply take the referent of a name at an alternative to be the individual at that world composed in part of the temporal part of the actual referent that was present during the relevant naming ceremony. The trouble with this proposal, however, is that it is not in general true that a believer’s alternatives contain individuals composed in part out of the temporal parts of actual individuals present at naming ceremonies; not even when there are true ascriptions to the believer involving names appropriately causally related to such naming ceremonies.\footnote{Note: I am not assuming that the fact that a theory of names cannot be adequately incorporated into the Neo-Hintikkan theory counts against it as a theory of names per se. Nor am I assuming that the fact that a theory of names can be adequately incorporated into the Neo-Hintikkan theory counts decisively in its favour. In fact, I believe that the view of names presented below is independently plausible. Another problem with incorporating the causal-historical theory into Neo-Hintikkan theory is that this would run afoul of Kripke’s puzzle about belief \cite{10}. I take the central lesson of Kripke’s puzzle to be that a single name in an ascription complement can differ in meaning on two different occasions of use, even if its actual referent is the same in both cases. For more on this, see \cite{1}.}

in the context of utterance. But when used anaphorically, a pronoun gets its semantic properties derivatively from its anaphoric antecedent. So, if the anaphoric antecedent of the pronoun in ‘He has an unpleasant odor’ is the occurrence of ‘Peter’ in ‘Peter has poor personal hygiene’, then, for example, the referent of (the occurrence of) ‘he’ is the referent of (the occurrence of) ‘Peter’.

According to the pro-nominal theory, names, like pronouns, have both demonstrative and anaphoric uses. When used demonstratively, the referent of a name is the individual gestured towards, or otherwise indicated, in the context of utterance.\footnote{Note: given pre-existing naming conventions, one does not need to gesture towards the referent of a name in order to indicate it, unless there is more than one bearer of the name present in the context of utterance. It is worth noting, in addition, that one can, in effect, newly dub an object with a name though its demonstrative use.} And as in the case of demonstrative uses of pronouns considered above, strictly speaking what one indicates is the temporal part of the referent of the name that is present in the context of utterance. As a result, in addition to its actual referent, a demonstrative use of a name can have referents at believers’ alternatives. In particular, its referent at a world is the individual at that world which shares with the actual referent the temporal part present during the context of utterance.

When used anaphorically, the referent of a name, \(N\), is the referent of its anaphoric antecedent, \(a_1\). If the antecedent, \(a_1\), is a demonstratively used referring expression, then the referent of \(N\) is the object indicated in the context in which \(a_1\) was uttered. And if \(a_1\) is itself used anaphorically, the referent of \(N\) is the referent of \(a_2\), the anaphoric antecedent of \(a_1\). In general, according to the pro-nominal theory, the referent of an anaphoric use of a name, \(N\), is the referent of the demonstratively used expression, \(a_i\), which initiates the anaphoric chain which culminates in the use of \(N\). And the referent of \(N\) at a believer’s alternative \(w\) is the individual at \(w\) which shares with the actual referent of \(a_i\) the temporal part of that individual present during the context in which \(a_i\) was used.\footnote{Two problems naturally come to mind at this point. First, two or more referring expressions could have an equal}
Suppose, for example, that during the reception at the French Embassy, the French Ambassador uses ‘Sir Percy Blakeney’ demonstratively when he says ‘Sir Percy Blakeney is a foppish dandy’. And suppose someone were later to make anaphoric use of the same name in the ascription ‘The French Ambassador believes that Sir Percy Blakeney is a foppish dandy’, and that the anaphoric antecedent of this use of ‘Sir Percy’ is the French Ambassador’s aforementioned use of it. In both cases, the actual referent would be the individual indicated during the Ambassador’s use of the name: Sir Percy, the man himself. And in both cases, the referent at any of the French Ambassador’s, or anyone’s, alternatives would be the individual composed in part out of the temporal part of Percy present during the context in which the French Ambassador made his utterance.

§7) Thus far, I have given an account of opaque ascriptions of belief. An ascription is used opaquely when how the believer conceives of the object of his/her belief is at issue; for example, this might occur when the conversational point is to explain the believer’s behaviour. What remains to be done here is to give an account of transparent ascriptions and quantifying in. An ascription is used transparently when how the believer conceives of the object of belief is not conversationally salient. An example might be when what is at issue is whether the belief in question is true or false. Transparent ascriptions are usually associated with the “believes of” locution, as in ‘The French Ambassador believes of Sir Percy Blakeney that he is a foppish dandy’. Moreover, in contrast to opaque ascription, coreferential expressions can be substituted \textit{salva veritate} in transparent ascriptions. If ‘The French Ambassador believes of Sir Percy Blakeney that he is a foppish dandy’ is true, then so is ‘The French Ambassador believes of the Scarlet Pimpernel that he is a foppish dandy’.

My account of transparent ascriptions borrows heavily from Kaplan’s [8]. The key to this approach is that it relies on a relation between the class of entities that serve as the contents of referring expressions in ascription complements and actual individuals. Since, on my view, the members of the class in question are functions from worlds to individuals, the obvious relation that obtains between actual individuals and these functions is that of “being the value at the actual world”. Let’s let \(V(a, f)\), where ‘\(a\)’ names an actual individual and ‘\(f\)’ names a function from worlds to individuals, abbreviate ‘\(a\) is the value of \(f\) at the actual world’. This allows us to give the following analysis of transparent ascriptions of the form ‘\(T\) believes that \(a\) is \(F\)’ (or ‘\(T\) believes of \(a\) that it is \(F\)’):

\[
(\exists x)(V(a, x) \land T\text{ believes that } x \text{ is } F).
\]

The idea here is quite straightforward. A transparent ascription is true just in case the following conditions are met: (i) the open sentence ‘\(T\) believes that \(x\) is \(F\)’ is satisfied by at least one function from worlds to individuals; and (ii) the value at the actual world of at least one of these “satisfying functions” is \(a\). As a result, on this analysis, the truth of the opaque ascription ‘The French Ambassador believes that Sir Percy Blakeney is a foppish dandy’ suffices for the truth of the transparent ascription ‘The French Ambassador believes of the Scarlet Pimpernel that he is a foppish dandy’.

What remains to be done here is to give an account of quantifying in, that is, ascriptions of the form ‘Someone [or something] is such that \(T\) believes that she [or it] is \(F\)’. The difficulty with giving an account of such ascriptions is that the fact of substitutivity failure prevents us from taking the substitution values of the variable in

\[\text{On Kaplan’s view, the relation in question was the denotation relation, which holds between referring expressions and individuals.}\]

\[\text{The range of the } x\text{-quantifier is, of course, the set of functions from worlds to individuals.}\]

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the complement clause to be members of the intended range of quantification-actual individuals. But given the analysis of transparent ascriptions already on the table, providing a corresponding account of quantifying in is quite straightforward. An ascription of the form ‘Someone [or something] is such that \( T \) believes that she [or it] is \( F \)’ can be given the following analysis:

\[(\exists y)(\exists x)(V(y, x) \land T \text{ believes that } x \text{ is } F).\]

As a result, on this analysis, the truth of ‘The French Ambassador believes that Sir Percy Blakeney is a foppish dandy’ suffices for the truth of ‘Someone is such that the French Ambassador believes that he is a foppish dandy’.

One might object here that I have simply disregarded the difficulties that arise for existential generalization (EG) in intensional contexts, and, in particular, in epistemic contexts. After all, one cannot, with impunity, infer an ascription of the form ‘\((\exists x)(T \text{ believes that } x \text{ is } F)\)’ from ‘\( T \text{ believes that } a \text{ is } F \)’. The quantified ascription can be inferred only from the truth of an ascription of the form ‘\( T \text{ believes of } a \text{ that } s/he is } F \)’. And this, in turn, entails that the belief in question is \( de \text{ re} \) and not merely \( de \text{ dicto} \).

In my view, however, this objection rests upon a conflation between two distinctions: the \( de \text{ re}/de \text{ dicto} \) distinction and the opaque/ transparent distinction.\(^2^7\) The former is a distinction between types of belief: \( de \text{ re} \) belief requires some sort of more intimate connection to the object of belief than does \( de \text{ dicto} \) belief.\(^2^8\) The latter is a distinction between types of belief ascriptions. As noted above, speakers use opaque ascriptions when concerned with how the believer conceives of the object of his/her belief, for example, when the conversational point is to explain the believer’s behaviour. And speakers use transparent ascriptions when how the believer conceives of the object of belief is not conversationally salient, for example, when what is at issue is whether the belief in question is true or false. Moreover, the truth of a transparent ascription does not entail that the ascribed belief is \( de \text{ re} \) in some sense or other; it simply entails that the belief has an object.\(^2^9\) What I want to suggest is that the “believes of” locution does not indicate that the ascribed belief is \( de \text{ re} \); it merely indicates that the ascription is transparent. As a result, even if one wants to insist that a quantified ascription can be inferred only from the truth of an ascription of the form ‘\( T \) believes of \( a \) that \( s/he is } F \)’, this does not imply that the believer must have some special intimate connection to the object of his/her belief.\(^3^0\)

The ascription ‘The French Ambassador believes that Sir Percy Blakeney is a foppish dandy’ is true while ‘The French Ambassador believes that the Scarlet Pimpernel is a foppish dandy’ is false, despite the fact that ‘Sir Percy Blakeney’ and ‘the Scarlet Pimpernel’ corefer. And the reason for this is that the French Ambassador does not realize that Sir Percy is the Scarlet Pimpernel.

Wouldn’t it be nice if there were a theory of the semantics of attitude ascriptions which captured this truism? There is.

\(^{2^9}\) A little care needs to be taken here given that one can make transparent ascriptions of beliefs about fiction.\(^{3^0}\) Someone might object here that my account of quantified ascriptions is far too permissive. Suppose that Mary believes that the shortest spy is a spy because she believes that all spies are spies and that there is a shortest member of every group of people. My view seems to imply that the ascription ‘Someone is such that Mary believes that s/he is a spy’ would be true in such circumstances, which is outrageous. After all, Mary has no suspect in mind. Personally, I don’t think this is so bad. In fact, I am happy to say that Mary does have a suspect in mind, but a suspect about whom she knows virtually nothing. I am, however, willing to give ground on this point. And it is worth noting that my view need not be taken to imply this consequence. After all, if something along the lines of the Russelian analysis of definite descriptions is endorsed, the inference in question is blocked. (One might object that this move would make my use of “the Scarlet Pimpernel” misleading. To avoid any confusion on this point, let me emphasize that my example employed the name “Theo [short for “Theodore”] Scarlet Pimpernel”. The absence of the “o” is merely a typographical error.)
References


