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RICE UNIVERSITY

DE RE BELIEF

by

JEFFREY SCOTT LEHMANN

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IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE

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ABSTRACT

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Chapter 1 presents two inadequate theories of belief. Chapter 2 examines three inadequate theories of de re belief. In Chapter 3, I distinguish belief from the other attitudes in terms of the functional role of belief states, and I distinguish among individual beliefs in terms of their mode of presentation and what they represent. A de re belief is defined as a belief about objects the agent has experienced and has a sufficient amount of information about. Chapter 4 defends the Quinean analysis of de re belief sentences in terms of a three-place belief predicate. Chapter 5 presents a more general statement of the logical form of de re belief sentences than either Quine's or Loar's statement, and it presents the truth-conditions for de re belief sentences.
TO LAUREN
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I would like to thank Baruch Brody and Richard Grandy for their valuable assistance, guidance, and support.
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INTRODUCTION

This dissertation is a study of de re belief. There are two principal questions. Under what conditions does someone have a de re belief? What is the logical form of de re belief sentences?

During the last twenty-five years, three kinds of hypotheses have been proposed to state the conditions under which someone has a de re belief; I call these the description hypothesis, the content hypothesis, and the acquaintance/causal hypothesis.

The description hypothesis identifies de re beliefs as those beliefs describable by de re belief sentences. Quine and Hintikka are examples of philosophers who tried to understand de re belief by analyzing de re belief sentences.¹ This linguistic approach to understanding de re belief dominated the literature from the late 1950's to the 1970's. During the 1970's, some philosophers, e.g., Tyler Burge, came to believe that the description hypothesis is inadequate, and that the best way to come to understand de re belief is by looking at what goes on in the head when someone has a de re belief. I agree that a psychological approach is more informative than the linguistic approach of Quine and Hintikka; however, the
literature does not contain a statement rejecting the 
description hypothesis. In this dissertation, I shall pro-
vide an argument against the description hypothesis.

The latest and probably the current favorite hypothesis 
identifies a de re belief as a belief with a special kind 
of content, or mode of presentation. Different versions 
of this hypothesis differ in how they characterize the 
contents of de re beliefs. David Kaplan, Tyler Burge, 
and John Pollock have proposed versions of the content 
hypothesis. However, the different versions of the con-
tent hypothesis have yet to receive any negative evaluation 
in the journals. As far as I know, no one has yet come up 
with a substantial criticism of them. In this disserta-
tion, I shall argue that none of the versions of the 
content hypothesis work.

The third hypothesis is the acquaintance/causal 
hypothesis. This hypothesis identifies de re beliefs as 
those beliefs about objects the believer is acquainted 
with, where the acquaintance relation is defined in terms 
of a causal connection of an appropriate type. The 
acquaintance/causal hypothesis was first introduced in 
the late 1960's, and received its most influential state-
ment in David Kaplan's "Quantifying In." The acquaintance/ 
causal hypothesis is not as popular as it once was. I 
suspect there are two reasons for this. First, Tyler 
Burge's criticism of Kaplan's proposal has been widely
accepted. While Burge did not object to Kaplan's proposal on the grounds that it is in terms of a causal connection, most philosophers have, nevertheless, turned their attention elsewhere. Second, causal analyses, be it of names, knowing, or de re belief, suffer from one traditional and constant criticism: the details of the analysis seem unworkable. Causal approaches are intuitively appealing, but they lose some appeal during the attempt to work out the details. In this dissertation, I shall argue that the acquaintance/causeal hypothesis gives the best strategy for stating the conditions under which someone has a de re belief, and I shall do the work necessary to give a complete hypothesis.

Chapter 1 presents a critical examination of two theories of belief. The task of a theory of belief is to distinguish belief from the other attitudes, and to distinguish among individual beliefs. A theory of belief is a necessary part of a theory of de re belief because de re beliefs are beliefs; once we have stated the conditions under which someone has a belief, we will be able to modify and add conditions in order to get the conditions under which someone has a de re belief.

I examine what I call the relational theory of belief and the content theory of belief. The relational theory distinguishes among the attitudes either in terms of the different manners in which the agent is related to
objects in having these different attitudes, or in terms of being related to different types of objects in having these different attitudes. Individual beliefs are distinguished among one another by virtue of being directed upon different objects. I shall reject the relational theory on two grounds: some mental acts are not directed upon anything, and different beliefs can be directed upon the same object and property.

The content theory distinguishes among instances of the same attitude in terms of having a different content, or mode of presentation, and distinguishes among different attitudes in terms of differing functional roles. I shall reject this theory because two beliefs may represent in a context-dependent manner; therefore, they may have the same content and yet be different because they represent different things. Such beliefs are not fully characterizable by their content, and they are not fully characterizable solely in terms of what goes on inside the head.

Chapter 2 presents the details of the three types of hypothesis for stating the conditions under which someone has a de re belief. I shall argue that the description hypothesis is uninformative because it does not tell us what makes a de re belief a de re belief. It tells us only that a belief is de re.

I shall argue against three versions of the content hypothesis. Kaplan's version states that a belief is de
re if and only if the object the belief is about is itself part of the belief's content. I shall argue that this is not a necessary condition for a belief to be de re, and is sufficient only in some cases. Burge's version states that a belief is de re if and only if the belief represents in a context-dependent manner. I shall argue that this is neither necessary nor sufficient. Pollock's version states that a belief is de re if and only if its mode of presentation is non-descriptive. I shall argue that this is neither necessary nor sufficient.

I shall consider two formulations of the acquaintance/causal hypothesis. I shall reject Kaplan's formulation because it confuses linguistic and psychological analyses of de re belief. I shall reject Michael Beebe's formulation because he offers no general theory of belief into which he can plug his ideas, he fails to work out the details of the hypothesis, and his account is open to several objections.  

Chapter 3 presents my theories of belief and de re belief. I define a belief as an internal state which has a content, has a certain functional role, and which may or may not represent existing objects as having certain properties. To give the conditions under which someone has a de re belief, I add to the conditions for having a belief that the belief represents existing objects, that the agent has experienced the objects his belief is about.
and that the agent possesses a sufficient amount of information about those objects. Based on the conditions under which someone has a de re belief, I shall argue that the difference between de re and de dicto belief is extrinsic to the internal belief state; consequently, there is only one kind of internal belief state.

The second issue of this dissertation is the logical form of de re belief sentences. There are four principal proposals in the literature: Quine's, Hintikka's, Kaplan's, and Strawson's.

Quine analyzed ordinary language de re belief sentences into formal sentences exhibiting a three-place belief predicate. This belief predicate was introduced specifically for use in de re belief sentences. Quine's analysis is the most durable in the literature, and I think it is basically correct. However, there is still a lot of work left to do. First, throughout the past twenty-five years, there have been many criticisms of the Quinean analysis, but prima facie, it is not clear whether Quine's analysis can survive those criticisms, and whether it is the best analysis. Second, there is at least one improvement I can make on the Quinean analysis.

Chapter 4 presents the Quinean analysis, and shows why it is superior to Hintikka's, Kaplan's, and Strawson's analyses. The reasons why I think Quine's analysis is better than these other three are new. I argue that
Hintikka's interpretation of the existential quantifier in de re belief sentences is unacceptable because he separates the quantifiers from existence, and links the quantifiers to the believer's ability to specify or describe the object the belief is about. Quine, of course, keeps his quantifiers and existence intimately connected. Kaplan's proposal fails because of problems resulting from the quantifiers ranging over both linguistic and mental items. Finally, I shall argue that Strawson's alternative fails because he falsely assumes that to grasp the proposition being asserted to be believed in a belief report is the same as to grasp which individual is being asserted to be the object the belief is about.

Chapter 5 presents an improvement to the Quinean analysis. I argue that predicates occurring in the belief context of ordinary language de re belief sentences are ambiguous between transparent and opaque readings. Afterwards, I give all the logical forms an ambiguous de re belief sentence might have, and give the conditions under which a sentence of each form is true. The result is a statement of the logical form of de re belief sentences more general than either Quine's original analysis or Quine's analysis as amended by Brian Loar.
FOOTNOTES


7 Quine, "Quantifiers and Propositional Attitudes."

8 Hintikka, Knowledge and Belief.

9 Kaplan, "Quantifying In."

10 P. F. Strawson, "Belief, Reference and Quantification," The Monist, 63 (1979), pp. 143-60.
CHAPTER 1

TWO THEORIES OF BELIEF

1.1 WHAT A THEORY OF BELIEF SHOULD DO AND EXPLAIN

What should a theory of belief do? What should a theory of belief explain? There are two tasks for a theory of belief, and some interrelated phenomena that need to be explained.

There are different kinds of mental attitudes; for example, believing, hoping, seeking, desiring, loving, etc. How do we identify and differentiate kinds of mental attitudes? In particular, how do we identify and distinguish belief from the other attitudes? This is the first task for a theory of belief.

There are different instances or examples of the same kind of mental attitude; for example, believing that the earth is round and believing that the moon is made of green cheese. How do we identify and distinguish among instances of the same kind of mental attitude? The second task of a theory of belief is to identify and distinguish among individual beliefs.

A theory which completes these two tasks should tell us several additional things. First, the theory should
tell us the conditions under which two people have the same belief. For example, what conditions have to be satisfied for both Reagan and Thatcher to believe that the Soviet Union is imperialistic? Second, the theory should tell us the conditions under which the same person can believe the same thing at different times. For example, the conditions under which I believe on separate evenings that I am tired. Third, the theory should explain how the same or different agents can have different attitudes toward the same thing. For example, the theory should give the conditions under which Ted believes that Mary will get a raise, Sue hopes that Mary will get a raise, and Bill desires that Mary will get a raise. These conditions should fall out of the manner of classifying the various attitudes and their instances. If a theory does not give intuitively adequate conditions for them, the theory should be rejected.

The phrase 'the objects of attitude φ' is very common in discussions on the attitudes. Its use is not uniform; it means different things to different authors. Let us stipulate that the most general and overall purpose of assigning objects to the attitudes is to identify and distinguish among the different kinds of attitudes and among the individual instances of each attitude. From this very broad characterization of 'objects of attitude φ', we shall derive the phrase's two most common
I use the expression 'mental attitudes' to be neutral between 'mental acts' and 'mental states.' On the relational view to be considered in sections 1.2--1.6, 'mental attitudes' is taken to mean 'mental acts.' On the content view to be considered in sections 1.7 and 1.8, 'mental attitudes' is taken to mean 'mental states which have a representative content.' On either interpretation, not every mental phenomena is an instance of a mental attitude; for example, feeling happy, sad, or feeling pain are not attitudes. Since some mental phenomena are not instances of a mental attitude, a theory which classifies the different attitudes and the instances of each attitude does not classify everything that is in the mind.

In this chapter, I will consider two inadequate theories. The relational theory claims that the mental attitudes are directed upon something. Different instances of the same kind of attitude are distinguished in terms of the agent being related to different things; for example, Joe's love for Mary and Joe's love for Sue are different because in one case Joe's love is directed upon Mary, and in the other case, directed upon Sue. Different kinds of attitude are distinguished in one of two ways. Different attitudes can be distinguished in terms of being directed upon different types of objects or different qualities. For example, Aristotle
distinguishes hearing from smelling because hearing is
directed upon sounds while smelling is directed upon odors.
If different attitudes are directed upon the same objects,
then they are distinguished by the different manner in
which the agent is related to these objects in having
these different attitudes.

In section 1.3, I present Quine's argument against
the relational view. Quine argues that either the objects
proposed to be the objects of the attitudes have an un-
acceptable ontological status, or they do not do the work
required of them. In section 1.4, I reply to Quine's
argument proposing a set of objects to be the objects of
the attitudes which have an acceptable ontological status
and do the work required of them. The reply to Quine in-
volves rejecting in part the uniformity requirement, the
conjunctive claim that the objects of any given attitude
Ø belong to a uniform category, and that the objects of
attitude Ø constitute a proper subset of all existents.
I deny in particular that the set of objects of a given
attitude must be a proper subset of all existents.

In section 1.5, I present two criticisms of the re-
lational view. First some mental acts are not directed
upon anything; for example, Johnny's love for Santa Claus.
Second, two different beliefs can be directed upon the
same object and property; for example, I may believe that
my neighbor two doors west lives on Colquitt, and yet
acquire a new belief that the Mayor of Houston lives on Colquitt, when I learn that my neighbor two doors west is the Mayor.

This second criticism suggests that an adequate theory of belief should take into account the belief's mode of presentation, i.e., the belief's content. The second inadequate theory I consider is the content view. This theory distinguishes among instances of the same attitude in terms of having a different content, and distinguishes among different attitudes in terms of differing functional roles. In section 1.7, I reject the content view because some beliefs represent in a context-dependent manner; therefore, two different beliefs may have the same content and yet be different because they represent different things. Such beliefs are not fully characterizable by their contents.

I end the chapter stating what we learned from the arguments against the relational and content views. We learn that an adequate theory of belief should allow for beliefs which do not represent an object, should be in part in terms of the mode of presentation, and should be in part in terms of what the belief represents, if anything. I shall propose a theory of belief which has these characteristics in Chapter 3.
1.2 THE RELATIONAL VIEW

The first proposal we shall consider is grounded in common sense. According to common sense, belief and the other attitudes are relations. They are relations between an agent and something else, perhaps a person, as in love and hate, or an object and a property, as in the belief that Houston is a large city. The relational view on the nature of the mental attitudes is the dominant view in the history of philosophy; Plato, Aristotle, Locke, Hume, Russell, Ramsey, Jerry Fodor and David Lewis, along with many others, hold some version of the relational view.

The relational view presupposes that there is a distinction between a mental act and the object it is directed at. There is the act of believing and there is that which the act is directed upon. There is the loving, and there is the beloved. If there were no act/object distinction, belief and the other attitudes could not be viewed as relations.

The claim that belief and the other attitudes are relations is an ontological claim. Corresponding to this is the linguistic claim that the function of the grammatical accusative in sentences describing beliefs, desires, loves, etc., is referential. 'Mary' in 'John loves Mary' refers to the person John loves. In a belief sentence like 'John believes that Mary is pretty', the subordinate clause 'Mary is pretty' receives the same
interpretation as the independent declarative sentence
'Mary is pretty'.

The proposal that mental attitudes are relational
should not be confused with Brentano's thesis on the
intentionality of mental phenomena. When Brentano says,

Every mental phenomenon is characterized by
. . . the intentional (or mental) inexistence
of an object, and (by) . . . reference to a
content, direction toward an object, . . .
or immanent objectivity. Every mental
phenomenon includes something as object
within itself,¹

he is making a claim about an internal veil of ideas. His
thesis is one discovered, he would say, through inner
perception, by gazing at the veil of ideas with the mind's
inner eye. Brentano's thesis presupposes a Cartesian
mind. My point is that the claim that mental acts are
relational is not a claim about mental phenomena qua
elements of an internal veil of ideas; it does not pre-
suppose the Cartesian framework within which Brentano
works.

On the relational view, what is the purpose of
assigning objects to the attitudes? As we said above,
the most general and overall purpose of assigning objects
to the attitudes is to classify them. If this classifi-
cation is done by virtue of the different things the
attitudes are directed upon (we shall spell this out
more in a minute), then the purpose of assigning objects
to the attitudes, on the relational view, is to give
these things. For belief in particular, the purpose of assigning objects to a belief is to give the things which the agent's belief is directed upon. This explicates one of the two principal uses of the phrase 'object of belief'.

Up to now I have spoken only of the view that 'mental attitudes are relational'. But are we talking about every mental act or only some? Traditionally, the relational view is taken to be that every mental act is a relation to something. The argument usually given to support this is that if there is nothing upon which a mental act is directed, there is no mental act. Plato makes the point as follows:

S: And if he thinks, he thinks something, doesn't he?
T: Necessarily.
S: When he thinks something, he thinks a thing that is.
T: I agree.
S: So to think what is not is to think nothing.
T: Clearly.
S: But surely to think nothing is the same as not to think at all.
T: That seems plain.²

Twenty-three hundred years after Plato, Bertrand Russell reasons in exactly the same way:

Direct inspection seems to leave no room whatever for doubt that, in all presentations and judgments, there is necessarily an object. If I believe that A is the father of B, I believe something; the subsistence of the something, if not directly obvious, seems to follow from the fact that,
if it did not subsist, I should be believing nothing, and therefore not believing.³

Plato and Russell take the common sense view that mental acts are relational as best expressed by the following:

RV: For each of S's mental acts, 
(∃x)(x is the object of S's mental act).

It clearly follows from RV that if there is no object, there is no act.

It is a controversial question what the variable 'x' ranges over in RV. We will discuss possible domains for the variable below.

We can get an idea on how the proposal that every mental activity is relational can be used to classify kinds of mental acts and individual instances of the same kind of act by reading Plato and Aristotle. Plato tells us

In the case of a faculty I look to one thing only—that to which it is related and what it effects, and it is in this way that I come to call each one of them a faculty, and that which is related to the same thing and accomplishes the same thing I call the same faculty and that to another I call other.⁴

Aristotle adopts the same approach:

If we are to define each of the faculties, we must first define the corresponding activities, since these are logically prior to the faculties. But, if that is so, we must, even before that, study the objects of the activities.⁵

In the remainder of Book II of De Anima, Aristotle isolates for each sense, a quality perceived by it alone:
for sight, color; for hearing, sound; for smell, odor, etc. These qualities are used to identify and distinguish the various senses.

Plato sought to distinguish each mental act by isolating for each at least one type of object unique to it. He presumably does this on the hypothesis that all mental acts are distinguished in the same way that the five senses are distinguished. Consider, for illustration, Plato's argument on the objects of knowledge and belief.

a: We are plainly agreed that opinion is a different thing from scientific knowledge.
b: Yes, different.
a: Each of them, then, since it is a different power, is related to a different object.
b: Of necessity. If different faculties are naturally related to different objects and both opinion and science are faculties, but each different from the other, as we say—these admissions do not leave place for the identity of the knowable and the opinable.6

For Plato, then, a faculty \( \emptyset \) and a faculty \( \Psi \) are distinct only if \( \emptyset \) and \( \Psi \) are related to a different type of object.

Suppose, contra Plato and Aristotle, that there are two different kinds of mental acts, \( \emptyset \) and \( \Psi \), but that they are directed at the same type of object. Then, even though \( \emptyset \) and \( \Psi \) are relational, they cannot be differentiated by their objects since their objects are
the same. They have to be distinguished by the different ways an agent is related to the objects when he is related to them in a $\emptyset$-way and in a $\mathcal{W}$-way. This is the crux of Hume's problem.

But as 'tis certain there is a great difference betwixt the simple conception of the existence of an object, and the belief of it, and as this difference lies not in the parts of composition of the idea, which we conceive, it must lie in the manner in which we conceive. 7

RV applies in a straightforward manner to instances of the same kind of mental activity; they are identified and distinguished by the things the acts are directed upon: $S_1$ and $S_2$ have the same belief if and only if their beliefs are directed upon the same things. The same goes for instances of the other attitudes.

The relational view explains the interrelated phenomena about identity as follows. Two people have the same belief when their beliefs are directed at the same things. A person has the same belief at different times if he has a belief directed at the same things at different times. If Plato and Aristotle are right about distinguishing among the faculties, then people cannot believe, know, hope and desire the same thing. Since this consequence seems counterintuitive to most holders of the relational view, most holders of the relational view claim that people can believe, know, hope and desire the same thing by having these different kinds of mental acts
directed upon the same objects.

To summarize, according to common sense, mental attitudes are relational. Traditionally, this intuition grounded in common sense is taken to be best expressed by

For each of S's mental acts, (\exists x)(x is the object of S's mental act).

On the relational view, the purpose of assigning objects to the attitudes is to give the things the act is directed upon. It is by being directed upon different types of things and to different objects that the different kinds, and instances of each kind, of mental act are classified, except in the case where two different kinds of mental act are related to the same type of object, in which case they are distinguished by how they are directed upon the object.

1.3 QUINE'S OBJECTION TO THE RELATIONAL VIEW

The relational view is open to a serious challenge. This challenge receives its most extensive expression by W. V. Quine in *Word and Object*, section 44.8 The argument is basically this. The relational view is correct only if the objects of the acts have an acceptable ontological status and do the work required of them. The objects of the acts have an acceptable ontological status if and only if their identity conditions can be given. As it turns out, either the objects proposed to be the objects of the
attitudes do not have an acceptable ontological status (eternal sentences—because of the required reference to a natural language, which have unclear identity conditions, and intensional objects such as propositions), or the proposed objects do not do the work required of them (classes—because class abstraction is transparent—and utterances—because they may not exist). It follows that the relational view is incorrect.

Quine proposes that we do not look at belief and the other attitudes as relational at all. He proposes that belief sentences like

Tom believes that Cicero denounced Cataline

are constituted by one referring expression, 'Tom', and one property expression, 'believes that Cicero denounced Cataline'.

I shall criticize Quine's view below in Section 1.8. What I want to do now is to spell out Quine's argument in order to bring out all the premises in the argument. The argument is more complicated than it first seems, and there are a lot of things going on in the argument worth discussing.

What follows is not an interpretation of Quine, at least in the sense of being a rewrite of some text. The argument is intended to fully explicate the basic moves in Quine's argument, and to tie in some other issues and problems which are related to the argument. For ease in
exposition, though, I shall continue to make Quine the spokesman.

Quine's argument is intended to prove that no mental act is relational. He thus intends to prove the contrary of

\[(A) \quad (1) \quad \text{for any of S's mental acts,} \]
\[\quad (\exists x)(x \text{ is the object of S's mental act}).\]

The argument proceeds by discussing an arbitrary mental act of an arbitrary type $\emptyset$. Quine's goal is to show that this arbitrary act of an arbitrary type has no object. If Quine can reach this goal, he will have proved the contrary of $(1)$ and that the traditional relational view is false.

The second premiss in the argument is often implicit in discussions on the attitudes because, I presume, of its general acceptance. The premiss states a uniformity requirement that all the objects of an attitude $\emptyset$ fall into the same category.

\[(2) \quad (x)(\text{If } x \text{ is an object of a type } \emptyset \text{ mental act, then } x \text{ belongs to category C}).\]

For example, the objects of belief are always propositions, or always mental representations, or always . . . etc. The uniformity requirement justifies inferences like

\[(i) \quad \text{If } a \text{ is an object of a } \emptyset\text{-mental act and } a \text{ is C, then all objects of } \emptyset\text{-mental acts are C,} \]

and
(ii) If a is an object of $\emptyset$-mental act and $\emptyset$ isn't C, then no object of a $\emptyset$ mental act is C.

As I understand the uniformity requirement, it is assumed that the set of objects which are C is a proper subset of all existing objects. In other words, there are objects which are not C, and, consequently, cannot be objects of attitude $\emptyset$. This assumption is made, I presume, to avoid trivializing the uniformity requirement by making the category C and the domain of the quantifiers co-extensive.

Why is the uniformity requirement generally accepted? One reason is based on a desideratum for theories on mental attitudes. We want to characterize a given attitude $\emptyset$ in the same way; so, given the relational view, we want to characterize, at least partially, instances of an attitude $\emptyset$ as being relations to the same kind of entity. A second reason is that if we view beliefs, say, as relations to members of a uniform category, it would be easier to explain how beliefs are caused through interaction with the environment and how beliefs cause behavior. It should be easier to systematize the causal roles of the attitudes if we adopt the uniformity requirement, which, in turn, should make easier the task of classifying the different kinds of mental acts and instances of the same kind of act. As I see it, uniformity is desired for the sake of generality and
simplicity in the theory.  

From (1) and (2), we can derive

(3) for each of S's mental acts of type ∅, (∃x)(x is an object of S's ∅-mental act and Cx),

where 'C' names the category which corresponds to mental acts of type ∅.

What categories are we talking about? The following is a list of categories usually proposed to be objects of the attitudes:

- C₁ physical objects and facts
- C₂ possible objects and possible facts
- C₃ individual concepts and propositions
- C₄ singular terms and sentences/statements
- C₅ internal representations
- C₆ properties

I define 'fact' as a nonempty set of actual objects together with actual relations on that set. Note that the term 'fact' does not denote possible facts.

At this point in the argument, Quine starts to argue that premiss (3) is false, i.e., for each of S's mental acts of type ∅, - (∃x)(x is the object of S's ∅-mental act and Cᵢx), 1 ≤ i ≤ 6. Quine argues for this in two different ways.

(In what follows, let the predicate '0x' abbreviate 'x is an object of S's ∅-mental act'.)

The first way is to show that there is nothing which falls under the category; therefore, there is nothing
which is both the object of S's \( \emptyset \)-mental act and a member of the category. Formally, the sub-argument goes like this:

\[
\begin{align*}
(4) & \quad \neg(\exists x)(C_1x) \\
(5) & \quad \text{If } (4), \text{ then } \neg(\exists x)(Ox \& C_1x) \\
(6) & \quad \text{Therefore, } \neg(\exists x)(Ox \& C_1x)
\end{align*}
\]

Which of the five categories can be eliminated in this way? Arguably, categories 2 through 5. It is notoriously difficult to give identity conditions for possible objects and possible facts. Also, Quine argues that identity conditions for intensional objects such as individual concepts, propositions and properties cannot be given. Quine rejects eternal sentences as objects of the attitudes because of a required relativity to a natural language, and Quine argues that the identity conditions for natural languages are unclear. Quine could also reject internal representations as candidates because of vague identity conditions; they are usually distinguished by their semantic, or propositional, content, and the notions of propositions and meanings are suspect.

The second way to show that there is nothing which is both an object of S's \( \emptyset \)-mental act and a member of category \( C_1 \) is to argue that there is something which is the object of S's \( \emptyset \)-mental act, but for one reason or another, it is not a member of \( C_1 \). By uniformity, one could then infer that no object of S's \( \emptyset \)-mental act is a
member of $C_1$, and deduce that there is nothing which is both the object of $S$'s $\emptyset$-mental act and a member of $C_1$.

Formally, the sub-argument goes like this:

(7) $(\exists x)(Ox \land -C_1x)$.

(8) If (7), then $(x)(0x \supset -C_1x)$ by Uniformity

(9) $(x)(0x \supset -C_1x)$ (7 & 8)

(10) $(x)(-Ox \lor -C_1x)$ (9), Laws of Imp.

(11) $(x)-(0x \land C_1x)$ (10), De Mor.

(12) $-(x)(0x \land C_1x)$ (11), Quant. Int.

What is the justification for premiss (7)? The justification for (7) comes from two sources. One source is premiss (1) which tells us that there IS an object of $S$'s $\emptyset$-mental act. The second source is the particular reason why the object of $S$'s $\emptyset$-mental act is not a member of $C_1$, but a member of some other category.

What are some of the reasons behind this second source? Consider material objects and the activity of seeking something. Apparently, what a person seeks is a physical object, perhaps another person, perhaps a location. But what about the following cases?

Diogenes sought an honest man
Ponce de Leon sought The Fountain of Youth.

In these cases, neither Diogenes nor Ponce de Leon could have been seeking a physical object because there is no honest man and there is no Fountain of Youth. Yet, (1) tells us that there is, despite appearances to the
contrary, an object which is being sought. The conclusion is that there is an object which is the object of their seeking, but it is not a physical object.

It is in this context that one of the oldest problems in the philosophy of mind appears: the problem of the ontological status of the objects of thought. What is the object of thought when we are thinking about Pegasus or Santa Claus? According to (1), there's got to be an object. Unfortunately, it is much easier to say what the object is not than to say what it is.

Which of the five categories can be eliminated using this second way to show that for each of S's $\emptyset$-mental acts, there is nothing which is both the object of S's $\emptyset$-mental act and a member of the category? Physical objects and facts are problematic because we have attitudes directed at non-actual objects like Pegasus and Santa Claus. So, category $C_1$ can be eliminated. Sentences and statements are a problem because of non-language users who engage in mental activities, for example, new-born infants. So, category $C_4$ can be eliminated. Category $C_5$, internal representations, is implausible, and ought to be eliminated. It is very counterintuitive to say that the object of one's love is a mental representation, or to say that what Diogenes and Ponce de Leon sought was something inside their heads.
Moore and Russell had problems with category C₃ propositions. Both accepted that beliefs have objects. They then got stuck in the following inconsistent triad:

Beliefs have propositional objects
There are no false propositions
There are false beliefs.

Moore tells us his troubles:

In order that a relation may hold between two things, both the two things must certainly be: and how then is it possible for anyone to believe in a thing which simply has no being? This is the difficulty which seems to arise if you say that false belief does not consist merely in a relation between the believer . . . and something else which certainly is . . . . And I confess I do not see any clear solution of the difficulty.¹²

In the literature of the past five years, propositions have come under heavy fire from a different battery. The general point is that propositions are not rich enough to be the objects of the attitudes. There are cases in which we desire to distinguish two mental acts of the same type, but there are not two distinct propositions with which we can do this. To avoid going into the details of these arguments and taking us too far from the task at hand, I refer you to the literature.¹³

The point is that, despite the long tradition of viewing the attitudes as propositional attitudes, propositions are not their objects.

So, members of categories C₁, C₃, C₄, and C₅ can be
eliminated as the objects of mental acts through the
second way to show that for each of S's mental acts of type
\(\emptyset\), there is no object which is both the object of S's \(\emptyset\)-
mental act and a member of \(C_1\).

Where are we in the argument? Using subargument (4)-(6), we eliminated categories \(C_2\) through \(C_6\). Using sub-
argument (7)-(12), we eliminated categories \(C_1, C_3, C_4\) and
\(C_5\). Between these two subarguments, we have eliminated
all six categories.

Based on these two subarguments concerning categories
\(C_1\) through \(C_6\), Quine can conclude

\[(13) \text{ for each of } S's \text{ mental acts of type } \emptyset,\]
\[-(\exists x)(\neg x \& C_1 x).\]

If we assume that there are no other categories whose
members are potential objects of the attitudes, we can con-
clude

\[(14) \text{ for each of } S's \text{ mental acts of type } \emptyset,\]
\[-(\exists x)(x \text{ is an object of } S's \text{ mental act}
\text{ of type } \emptyset).\]

Quine believes he has considered all potential categories;
therefore, Quine concludes (14). Since \(\emptyset\) is an arbitrary
type of mental act, (14) is equivalent to

\[(15) \text{ No mental act is relational,}\]
which is the contrary of premiss (1); hence, (1) is false.
And with (15), Quine not only shows that 'all mental acts
are relational' is false; he also shows that the weaker
nontraditional expression of the relational view, that
only some mental acts are relational, is false.

1.4 OBJECTIONS AGAINST QUINE'S ARGUMENT

Quine has an interesting argument here; however, it is not persuasive to someone who holds the relational view because it denies the very strong intuition that mental attitudes are directed at objects, and that grammatical accusatives in sentences describing mental attitudes are referring expressions. For someone who holds the relational view, there is strong motivation to look for some mistakes in Quine's argument. Where does the mistake lie?

One option is to reject that part of the uniformity requirement which says that the objects of any given attitude $\emptyset$ belong to a uniform category, and thereby reject premisses (A2) and (A8). This option is undesirable because we do not want to give up the ideal of characterizing mental acts of the same type in the same way, i.e., as directed upon the same type of entity.

A second option is to claim Quine wrongly assumes that there are no other categories whose members are potential objects of the attitudes. Once we get the category right, with its members having an acceptable ontological status, premiss (A7) will turn out false; there will be an object which is both an object of the act and a member of the category. The problem with this option lies in coming up with the category.
The third option follows up the second. There is a problem with coming up with the right category only if we assume that the set of objects which are members of the category is a proper subset of the set of all existents. The third option is to make the category the set of all existing things, and thereby reject the second part of the uniformity requirement. On this option, whatever the object of a mental act turns out to be, it will be a member of the category; consequently, premiss (A7) is false. Furthermore, since there are members of the set of all existing things, premiss (A4) is also false.

Why should we think that the right category is the set of all existents? If the right category for type $\emptyset$ mental acts were a proper subset of the set of existents, then there would be something which is not "$\emptyset$-able." But this seems false. What is not lovable? What can't I have beliefs, desires or hopes about? The fact seems to be that given an appropriate situation, I can love anything, have a belief about anything, have a desire about anything, and have a hope about anything. Since any existent is capable of being an object of a type $\emptyset$ mental act, the right category simply is the set of all existing things.

Why have people thought that the right category had to be a proper subset of the set of all existents? We got into this briefly above, but let's look at the details now. One reason might be the Platonic intuition which
says that each mental faculty has its own category of objects which no other faculty has. No one thinks that Plato is right about this anymore. We think that different attitudes may have the same object, e.g., that different people may believe, desire and hope that Mary will get a raise. The Platonic intuition is implausible.

A second reason is that it trivializes the part of the uniformity requirement which says that the objects of a given attitude should be of the same type. One might say that it is trivial because the variety of objects are subsumed under the broadest possible category. But why should we be unhappy about this, especially when the facts seem to be that we can have mental acts directed at anything whatsoever? Perhaps one has an *a priori* intuition about what the objects of a given attitude can be. But why should we go with an *a priori* intuition when, when we look at actual mental acts, we find that they can be directed at anything? Perhaps it trivializes the uniformity requirement in the sense that, if the right category is the set of all existents, we do not get any new information about, or a new perspective on, the objects of the attitudes. For example, from Plato we learned that the objects of belief made up the world of Becoming and the objects of knowledge made up the world of Being. From Plato, we got a new perspective on the structure of reality. But the relational view does not demand that the assignment of
objects to the attitudes be so interesting or so meta-
physically pregnant. All the traditional relational view
demands from the assignment of objects to the attitudes
is that there be an assignment for each mental act and
that the assignments for acts of the same type fall under
some category, be it interesting or pregnant, or neither.

Finally, one might object to making the right cate-
gory the set of all existing things on the following
grounds. One of the jobs of the objects of an attitude
is to give the content of the various instances of the
attitude. For example, the object of John's belief that
Mary is pretty should give the content of John's belief,
the content that Mary is pretty. But it is not the case
that just anything can give the content of the various
instances of the attitudes. So, the right category is not
the set of all existents.

But what does it mean "to give the content" of, say,
a belief? If it means "to give what is believed," then
the minor premiss is false because on the relational view,
to give what is believed is to give that which the mental
act is directed upon, and mental acts can be directed upon
anything. If "to give the content of a belief" means to
give something which expresses the belief's mode of
presentation, then the major premiss is false, at least on
the relational view. It is one task to find an adequate
expression of a belief's mode of presentation, e.g., with
a proposition or a sentence in a natural language. It is quite a different task to give the objects which a belief is directed upon, to give the objects which are represented by the belief. As we said above, the whole idea of assigning objects to the attitudes is to classify them. The relational view attempts to classify mental attitudes in terms of the things the attitudes are directed upon. It does not attempt to classify mental attitudes in terms of expressions of modes of presentation. On the relational view, the objects of a belief are the things the belief is directed upon, and the things which a belief is directed upon need not also express the belief's mode of presentation. It is irrelevant to the relational view that only some things can express a belief's mode of presentation.

The upshot of the third option is this. The evidence from looking at our mental acts tells us that we can have mental acts directed at just about anything. So, the right category seems to be the set of all existents. And the arguments for thinking that the corresponding category for a mental attitude has to be a proper subset of the set of all existents are all unsuccessful.

So, Quine's argument fails because premises (A4) and (A7) are false. His mistake was to fail to consider the correct category for the attitudes by wrongly assuming that the category must be a subset of the set of all
existing things.

1.5 TWO OBJECTIONS AGAINST THE RELATIONAL VIEW OF MENTAL ATTITUDES

Even though Quine's argument against the traditional relational view fails, there are two successful arguments against it. The first problem with the traditional relational view centers around attitudes which are purportedly directed at fictional creatures. I shall argue that such mental acts are in fact not directed upon an object. This is contrary to the traditional relational view which says that every mental act is directed upon some object. The second problem is that I may have two different beliefs directed at the same object and property; therefore, the relational view cannot do the classification required.

According to the relational view, for each mental act, there exists something that the act is directed upon. If that something did not exist, there would not be a mental act. Since love is a mental act, if something is an object of love, then that something exists. Using 'Bx' to abbreviate 'x is beloved' and 'Cx' to abbreviate 'x exists,' we get

(B) (1) (x)(Bx ⊃ Cx).

Consider now the case of

(2) Little Johnny loves Santa Claus.
What is the object of Johnny's love? The common sense answer is that if there is something Johnny loves, the object of his love is Santa Claus.

(3) If (3x)(Ox), then (3y)(z)(Oz ≡ z = y & Sy), where 'Ox' abbreviates 'x is the object of Johnny's love when Johnny loves Santa Claus,' and 'Sy' abbreviates 'x is Santa Claus.'

Does Santa Claus exist? No.

(4) (x)(Cx ⊃ ¬Sx).

Finally,

(5) (x)(Ox ⊃ Bx)

is true given the meaning of the predicates involved.

My first argument against the traditional relational view is this. Premisses (B1) through (B5) are true. But if we suppose that there is an object of Johnny's love, as there has to be on the traditional relational view, we get a contradiction. One ends up saying both that Santa Claus exists and that he does not exist; he exists because the object of Johnny's love exists, and this object is Santa Claus, and he does not exist because it is a fact that Santa Claus does not exist. We conclude that the supposition that there is an object of Johnny's love is false.

Here is the step-by-step proof.
ARGUMENT $B^{14}$

1. \((x)(Bx \supset Cx)\)  
2. Johnny loves Santa Claus  
3. \((\exists x)(0x) \supset (\exists y)(x)(0z \equiv z=y \& Sy)\)  
4. \((x)(Cx \supset -Sx)\)  
5. \((x)(0x \supset Bx)\)  
6. \((\exists x)(0x)\)  
7. \((x)(Bx \supset Cx)\)  
8. \(Bu \supset Cu\)  
9. \((x)(Cx \supset -Sx)\)  
10. \(Cu \supset -Su\)  
11. \((x)(0x \supset Bx)\)  
12. \(Bu \supset Bu\)  
13. \(Bu\)  
14. \(Su\)  
15. \(u\)  
16. \((\exists x)(0x)\)  
17. \((\exists x)(0x \supset (\exists y)(z)\)  
18. \((\exists x)(0x \supset (\exists y)(z)\)  
19. \((\exists x)(0x \supset (\exists y)(z)\)  
20. \((\exists x)(0x \supset (\exists y)(z)\)  
21. \(Ou \equiv u = v \& Sv\)  
22. \(Ou\)  
23. \(u = v \& Sv\)  
24. \(u = v\)  
25. \(Su\)  
26. \(Su\)  
27. \((x)-(0x)\)  
28. \((x)-(0x)\)  
29. \(-((\exists x)(0x)\)  
30. \(6,7-28\)  
31. \(6-30, neg int\)
If you disagree with my claim that everything is loveable, i.e., with what predicate I take 'Cx' to abbreviate, it is alright because it does not affect the soundness of the argument. Perhaps some things are not loveable, but since the objects of love, whatever they are, exist, and Santa Claus does not, premisses (B1) and (B4) will still be true.

Someone might object to premiss (B4) saying that I am implicitly taking 'Cx' to mean 'x is actual.' This is a mistake because there is an existing, although non-actual, object which is Santa Claus. This object is not a real or actual person since Santa Claus is not a real person. Nevertheless, Santa Claus really is a fictional person; he is a character in a body of actual fictional discourse. So, Santa Claus does exist, not because he is an actual person, but because he is a fictional creature.

There are two ways to take this objection. On one way, the objection asserts the existence of fictional creatures independently of fictional discourse. On the second way, the objection says that attitudes directed at fictional creatures are in fact directed at the bodies of fictional discourse. We shall discuss the first interpretation now, and the second interpretation when we consider objections to premiss (B3).

On the first interpretation, this objection asserts that there is a domain of fictional creatures which we
refer to in fictional discourse and which account for the truth of statements like

(a) Sherlock Holmes is a fictional creature.

In order for (a) to be true, the argument goes, the object referred to by 'Sherlock Holmes' must have the property ascribed to it. Since 'Sherlock Holmes' does not refer to a real person, it refers to a merely possible person, and since there is a body of literature about this possible person, it is a fictional person.

The existence of fictional creatures and the logical status of fictional discourse raise provocative questions which cannot be discussed at length here without taking us too far from the topic of belief. However, let me briefly challenge the objector's argument.

John Searle has recently argued that it is not necessary to postulate a domain of fictional creatures to serve as the references of singular terms in fictional discourse and to account for the truth of statements like (a). Searle distinguishes between statements in fictional discourse; for example,

(b) Holmes retired early to think about the case, from statements made in the course of reporting actual events, like in a newspaper. Searle persuasively argues that names in fictional discourse are used as if they were referring expressions while names in "serious" discourse are used as referring expressions. A. Conan Doyle did not
intend to refer to a real detective when he wrote his stories, but a Chronicle reporter does intend to refer to real detectives when reporting on the investigators of a homicide. Because Conan Doyle only pretended to refer, we do not need to postulate a domain of entities to serve as the references of the terms used in the fictional discourse. Further, since Conan Doyle only pretended to refer, statements like (b) have no truth-value; consequently, we do not need to postulate a domain of fictional creatures to account for the truth of statements in fictional discourse.

Searle contrasts statements in fictional discourse with serious statements about fictional discourse. (a) is a serious statement about fictional discourse. As a serious statement, (a) is true or false. (a) is verified, if at all, by the works of Conan Doyle. As I understand Searle's view, (a) is true if and only if there is a body of actual fictional discourse in which the speaker/writer of the discourse pretends to refer to someone using the name 'Sherlock Holmes', and pretends there is someone being referred to with 'Sherlock Holmes'. These truth-conditions for (a) do not assert the existence of a domain of entities in addition to the existence of the fictional discourse. For Searle, we can assert the existence of fictional creatures only insofar as we can assert the existence of fictional discourse, but there are no
fictional creatures which exist independently of the fictional discourse.

So, neither statements in fictional discourse nor statements about fictional discourse require postulating a domain of fictional creatures. I conclude that the argument to support the objection to premiss (B4) fails.

The weakest point in my argument is premiss (B3), which says that if there is an object of Johnny's love, the object is Santa Claus. To reject (B3) is to say that there is an object of Johnny's love, but the object is not Santa Claus. However, as we said above, this claim is counterintuitive because common sense tells us that if Johnny loves anything, he loves Santa Claus.

A rejector of (B3) might reply that it is not as counterintuitive as it first seems, because while Johnny's love is not directed upon Santa Claus, it is directed upon something which would represent Santa Claus if he existed, e.g., a name, a myth, which I take to be a set of statements satisfying certain conditions, an individual concept, or a mental image.

But again this is counterintuitive. Johnny does not love the name 'Santa Claus', the Santa Claus myth, an individual concept, or something inside his head. On Christmas Eve when Johnny waits for the object of his love, he is not waiting for a name, a myth, a concept or a mental image to come down the chimney.
The rejector of (B3) might reply: Look! There has to be an object of Johnny's love, or else he could not be loving at all. Granted, it cannot be Santa Claus because Santa Claus does not exist, and granted, it is counterintuitive to say that Johnny loves a name, a myth, a concept or a mental image. But I still have two options. I can either continue to search for an object of Johnny's love which is intuitively acceptable, or else, like Russell in a similar situation, agree that it is unnatural to say the object of Johnny's love is a name, a myth, a concept or a mental image, but add "as a matter of fact it is only a prejudice."

On the first option, I ask, where can the search lead to? We have already considered the most plausible candidates, and found them unacceptable. Sure, it is possible to come up with an intuitively acceptable object of Johnny's love, but no one has ever been able to do it. This continued failure tells us that something is wrong, and the message, I suggest, is that we should give up the idea that there is an object Johnny's love is directed upon.

On the second option, such conviction and tenacity is warranted only if we have really solid reasons for thinking (i) there is an object Johnny's love is directed upon, and (ii) it is either a name, a myth, a concept or a mental image. We do not have really solid reasons for
accepting (ii) since it strikes us as counterintuitive
to say that they are what Johnny loves.

What about (i)? How good are our reasons for thinking that there has to be an object Johnny's love is
directed upon. In general, why have philosophers been so
convinced for so long that the traditional relational view
is correct? What are the basic motivations behind the
traditional relational view? One motivation that we have
been mentioning all along is the common sense intuition
that mental acts are relations. But why have philosophers
taken this common sense intuition to be best expressed by
'all mental acts are relations' rather than the weaker
qualified relational view that only some mental acts are
relational?

My suggestion is that philosophers have gone for the
stronger traditional relational view because they accepted,
usually implicitly and confusedly, a perceptual model of
consciousness. It is plausible to claim that if there is
no color, there is no seeing; that if there is no sound,
there is no hearing; that if there is no odor, there is no
smelling. What I think philosophers did was to view all
mental acts as perceptual acts. They took some features
of perceptual acts and extended them to all mental acts.

To illustrate, watch how Plato goes from the senses
to thinking.
S: Is it possible that a man should see something, and yet what he sees be nothing?
T: No. How could that be?
S: Yet surely if what he sees is something, it must be a thing that is. Or do you suppose that 'something' can be reckoned among things that have no being at all?
T: No, I don't.
S: Then, if he sees something, he sees a thing that is.
T: Evidently.
S: And if he hears a thing, he hears something and hears a thing that is.
T: Yes.
S: And if he touches a thing, he touches something, and if something, then a thing that is.
T: That is also true.
S: And if he thinks, he thinks something, doesn't he?
T: Necessarily.
S: And when he thinks something, he thinks a thing that is?
T: I agree.
S: So to think what is not is to think nothing.
T: Clearly.
S: But surely to think nothing is the same as not to think at all.
T: That seems plain. 16

In De Anima, Book II, chapter 3, Aristotle says, "Thinking, both speculative and practical, is regarded as akin to a form of perceiving; for in the one as well as the other the soul discriminates and is cognizant of something which is." (427a 18-21) In Book III, chapter 4, Aristotle explains in more detail the consequences of this hypothesis.

If thinking is like perceiving, it must be either a process in which the soul is acted upon by what is capable of being thought, or a process different from but analogous to that. The thinking part of the soul must therefore be,
while itself impassive, capable of receiving the form of an object, that is, must be potentially identical in character with its object without being the object. Mind must be related to what is thinkable, as sense is to what is sensible.\textsuperscript{17}

St. Thomas Aquinas argues in a similar vein.

Everything is knowable so far as it is in act and not so far as it is in potentiality; for a thing is a being, and is true, and therefore knowable, according to what is actual. This is quite clear as regards sensible things, for the eye does not see what is potentially, but what is actually, colored. In like manner, it is clear that the intellect, so far as it knows material things, does not know save what is in act.\textsuperscript{18}

Descartes also views all acts of the understanding, which for him excludes volitional acts, as perceptual acts.

Sense-perception, imagining, and conceiving things that are purely intelligible, are just different methods of perceiving.\textsuperscript{19}

John Locke also views mental acts on the perceptual model. This view is expressed by his definition of 'idea' as 'whatsoever is the object of the understanding when a man thinks' and his claim that "having ideas and perception (are) the same thing." The view is most clearly expressed in this passage:

The power of perception is that which we call the understanding. Perception, which we make the act of understanding, is of three sorts: (1) the perception of ideas in our minds, (2) the perception of the signification of signs, and (3) the perception of the connexion or repugnancy, agreement or disagreement, that there is between any of our ideas. All these are attributed to the understanding, or perceptive power.\textsuperscript{20}
Is it plausible to view all mental acts as perceptual acts? Richard Rorty in *Philosophy and the Mirror of Nature* has argued against the perceptual model of consciousness because it presupposes that justification is a matter of explaining or showing that the mind is operating correctly, and that the mind is seeing things as they really are. To illustrate, for Descartes, to be justified is to be certain, and to be certain is to perceive clearly and distinctly. Watch how Descartes uses the ocular metaphor to give the meaning of 'to perceive clearly and distinctly', and, thereby, explain what it is to be justified.

I term that clear which is present and apparent to an attentive mind, in the same way as we assert that we see objects clearly when, being present to the regarding eye, they operate upon it with sufficient strength. But the distinct is that which is so precise and different from all other objects that it contains within itself nothing but what is clear.

Rorty's basic objection is that to justify something is different from giving an explanation. Justification is a logical relation holding between declarative sentences or propositions. Rorty emphasizes the social or "dialogue" aspect of justification. But I suspect most philosophers view justification, at least when they are talking about good and bad arguments, in roughly the following way. A set of propositions S justifies a proposition A if either A is deducible from S, or S gives enough inductive support
for A. In short, Rorty's argument is this. If the perceptual model is correct, then justification is a matter of clear and distinct perception. Justification is not a matter of clear and distinct perception. Therefore, the perceptual model is incorrect. It is not plausible to view all mental acts as perceptual acts. If the basic motivation for going with the stronger traditional relational view rather than the qualified relational view has been the perceptual model of consciousness, then the traditional relational view is undermined to the extent that it relies on the perceptual model.

The upshot of all this about the perceptual model of consciousness is to show that contrary to what the rejector of (B3) says, we do not have solid reasons for thinking that every mental act is directed at an object. Therefore, the rejector of (B3) is not warranted in discounting the counterintuitiveness of saying that the object of Johnny's love is a name, a myth, an individual concept, or a mental image.

So, while premiss (B3) is not as obvious as the others, I can think of no successful objection to it. Argument (B) is a successful objection to the traditional relational view.

My second objection against the relational view applies to either the traditional relational view or the qualified relational view which admits that some mental
acts are not directed upon an object. The problem is that I may have two different beliefs about the same object and property; consequently, the relational view is inadequate to distinguish among all individual beliefs.

On the relational view, two people have the same belief when their beliefs are directed at the same objects and properties. More precisely, \( S_1 \) and \( S_2 \) have the same belief if and only if \( S_1 \)'s belief and \( S_2 \)'s belief are each directed at the same objects, if there are any, and the same properties.

This analysis does not work because there are cases in which a person has two distinct beliefs even though both beliefs ascribe the same property to the same object. For example, before January 30, 1982, I believed that the person who lived two doors west of me lived on Colquitt, the street that I live on. On January 30, 1982, someone told me that the person who lives two doors west of me is Kathy Whitmire, the Mayor of Houston. I acquired a new belief; I came to believe that Kathy Whitmire lives on Colquitt. The important thing is that my belief that the person who lived two doors west of me lives on Colquitt and my belief that Kathy Whitmire lives on Colquitt ascribe the same property, lives on Colquitt, to the same person. It follows from the conditions for having the same belief that these are the same beliefs, and so I did not acquire a new belief in this case. But the fact seems to be that
I did acquire a new belief. Therefore, the relational view, traditional or qualified, does not distinguish some beliefs which should be distinguished.

This case shows us that to distinguish some beliefs, we must make reference to how the believer picks out the objects his belief is directed upon, i.e., we must sometimes make references to the belief's mode of presentation, its representative content.

My two objections against the relational view give us two characteristics of an adequate theory of belief. First, an adequate theory of belief should allow for beliefs which are not directed upon any object, i.e., which do not represent anything. Second, an adequate theory of belief should make reference to the belief's mode of presentation.

The content view which we will consider next has these two characteristics. I will eventually reject the content view.

I shall present my own theory of belief in Chapter 3. It will have the two characteristics just mentioned, and also possess a third characteristic an adequate theory must have. We shall learn what this third characteristic is when we reject the content view.
1.6 THE CONTENT VIEW

We are looking for a theory which will identify and distinguish kinds of mental attitude and instances of the same kind of mental attitude. Also, we are looking for a theory which will explain some interrelated phenomena involving identity. We have been considering the traditional and qualified relational views. These were found to be inadequate. We have learned that an adequate theory allows for instances of attitudes which are not directed upon an object, and which makes reference to their mode of presentation.

The major alternative to the relational view is what I call the content view. According to the content view, the attitudes are mental states which have a representative content. The representative content, the state's mode of presentation, is a characteristic of the mental state. The different kinds of attitude are characterized functionally, and the different instances of the same kind of attitude are characterized by their content.

On the content view, focus shifts away from mental acts, things a person does to an object, to mental states, persons having mental properties. The content view is a non-relational view. It says that mental states are fully characterizable without reference to what they represent, and with reference only to what goes on in the
head. Being a non-relational view, the content view allows for instances of attitudes which do not represent anything, and this view makes reference to the mode of presentation of the instances of the attitudes.

Corresponding to the ontological claim that mental attitudes like belief, hope, and love are states is the linguistic claim that the function of grammatical accusatives in sentences about mental states is descriptive. 'Loves Mary' in 'John loves Mary' is a property expression which describes John. It tells us that John is in a mental state which is characterizable by 'loves Mary'. In a belief sentence like 'John believes that Mary is pretty', the verb and subordinate clause 'believes that Mary is pretty' is a property expression which describes John. It tells us that John is in a certain mental state, a belief state, which we can characterize with 'Mary is pretty'. The function of the grammatical accusative is descriptive, not referential. 'Mary' in 'John loves Mary', does not refer to Mary and 'Mary is pretty' in 'John believes that Mary is pretty' does not receive the same interpretation as the independent declarative sentence 'Mary is pretty'.

W. V. Quine proposed the content view in *Word and Object*. "A final alternative that I find as appealing as any is simply to dispense with the objects of the propositional attitudes. We can continue to formulate the
propositional attitudes with help of the notations of
intensional abstraction, but just cease to view these
notations as singular terms referring to objects."23
Another advocate of the content view is Edmund Husserl.
Husserl seems committed to the content view because he
tries to describe the essential structure of conscious-
ness and of what appears in consciousness while simul-
taneously suspending judgment about the extra-mental
world.24 The idea of describing consciousness using this
method of bracketing seems to presuppose that one can
fully characterize consciousness simply in terms of the
various modes of consciousness, i.e., in terms of the
contents and functional roles of mental states.

On the content view, what is the purpose of assign-
ing objects to the attitudes? As we said in Section 1.1,
the overall purpose of assigning objects to the attitudes
is to classify different kinds of mental attitudes and
different instances of the same kind of mental attitude.
On the content view, this classification is done by
characterizing states of the head. Therefore, on the
content view, the purpose for assigning objects to the
attitudes is to characterize states of the head. In par-
ticular, the purpose of assigning objects to beliefs is
to characterize the belief state, a state which is solely
in the head. This explicates the second of the two
principal meanings of the phrase 'object of attitude ø'.

How is the classification done? The different kinds of mental attitude are functionally defined. Belief, for example, is defined by its representational function and by the role beliefs play in producing behavior. Each instance of an attitude has a content, and different instances of the same kind of attitude are distinguished by their content. The content of a mental state is the mental state's mode of presentation, i.e., it is the way the mental state represents what it represents. For example, the belief that Kathy Whitmire lives on Colquitt and the belief that the Mayor of Houston lives on Colquitt are different because each belief has a different content. Each belief represents the same person, but they represent her in a different way.

There is an important connection between an object of a belief and the belief's content. The purpose of assigning objects to belief is to characterize them. Individual belief states are characterized by their content. So, the purpose of assigning an object to a belief is to give the belief's content. The object of a belief must give or express the content of the belief. On the content view, 'the object of a belief', 'the content of a belief' and 'what is believed' are often used interchangeably.

What kinds of things express contents? What are the categories of objects which have a prima facie chance to
be the objects of the attitudes? (The Content view also adopts the uniformity requirement that the objects of the same kind of attitude fall under a uniform category.) The possibilities are propositions, sentences of a natural language, utterances of sentences of a natural language, eternal sentences, and sentences of an internal language of thought. More generally, if we are looking for something to express the content of a belief, we are looking for some kind of linguistic or linguistically-oriented entity. Entities which are incapable of expressing contents are ruled out, and thereby all but linguistic or linguistically-oriented entities seem to be ruled out.

An assignment of an object to a belief is adequate only if the object fully expresses the content of the belief. To illustrate how a category of objects is rejected, it has been argued in the past five years that propositions do not fully express the contents of some beliefs. Propositions are not sufficiently rich to give the contents of all beliefs. Tyler Burge argued that propositions, being fully conceptualized, cannot express the context-dependent content of a perceptual belief. 25 John Perry makes basically the same point when he argues that propositions are not rich enough to express contents which essentially involve indexicals, e.g., the belief that I am now writing. 26
Early in the 20th century, G. E. Moore and Bertrand Russell also doubted whether propositions could be the objects of the attitudes. They asserted that beliefs have a propositional content, but ran into trouble finding a proposition to express the content of false beliefs because they denied the existence of false propositions. Moore never saw a way out of this rut, and Russell tried and tried by adjusting and modifying his definition of 'proposition'.

How does the Content view explain the phenomena involving identity? Two people have the same belief if their beliefs have the same content. A person can have the same belief at different times if he has a belief with the same content at different times. Different people can have different attitudes toward the same thing if the different instances have the same content. For example, if Ted believes that Mary will get a raise, and Sue hopes that Mary will get a raise, Ted believes and Sue hopes the same thing; Ted's belief and Sue's hope have the same content.

If Ted believes and Sue hopes the same thing, how do we distinguish the believing from the hoping? Even though Ted and Sue each have a mental state with the same content, their mental states play a different role for each of them. Ted's mental state plays the functional role of a belief state while Sue's mental state plays the
functional role of a hope state.

People, then, can believe, know, hope and desire the same thing by being in correspondingly different kinds of mental states which have the same content, i.e., which are characterized in the same way.

To summarize: The major alternative to the relational views is the Content view. On the Content view, beliefs, hopes, desires, loves, and hates are states of the head. They are fully characterizable without reference to what the states may represent. The purpose of assigning objects to the attitudes is to characterize these states. The different kinds of attitude are characterized functionally, and the different instances of the same kind of attitude are characterized by their content. An object of an attitude should give or express the content of the attitude. The interrelated phenomena involving identity are explained in terms of having mental states, either of the same kind or of different kinds, with the same content.

1.7 THE CONTENT VIEW

On the Content view, to have a belief is to have a property. It is to be in a mental state which we can characterize in a non-relational way. We characterize a belief state by its content, the belief state's mode of presentation.
If belief states are fully characterizable by their content, then belief states are fully characterizable solely in terms of what is going on in the head. We do not have to look at anything outside the head to characterize the belief if we characterize it by its content. This conditional is part of the Content view since a belief state's content is an intrinsic quality of the belief state.

Further, if belief states are fully characterizable by their content, then internal belief states represent in a context independent manner. If a belief state represented in a context dependent manner, then, in order to fully characterize the belief state, we would have to mention the context—the identity of the believer, the time, or the place—and since the context is not an intrinsic quality of the belief state but something outside the head, we would be characterizing the belief state neither solely in terms of what is going on inside the head nor solely by its content. Another theorem of the Content view, then, is that if belief states are fully characterizable by their content, then belief states represent in a context independent manner.

Let us stipulate that an internal state m with content C represents an actual object a as having an actual property P in a context independent way only if for any agent S at any time t in any place p
(x)(F)(m represents x as having F for S at t in p only if x=a & F=P).

I want to show that some belief states represent in a context dependent manner, and, consequently, are neither fully characterizable by their content nor fully characterizable solely in terms of what is going on inside the head. In order to do this, I need two more premisses.

First, for those belief states with fully expressible contents, if person S expresses his own belief with sentence 'A', then S's belief state has a content fully expressible by 'A'. This premiss holds because one criterion for an articulate sincere believer to be in a belief state with a certain fully expressible content is for the believer to express that content when characterizing his belief.

There are two things to note about the first premiss. We restricted the premiss to belief states with fully characterizable contents because there are some belief states with contents which, arguably, are not fully expressible. For example, the expression 'this is red' of a perceptual belief does not fully characterize the shade of red perceived, nor does our language distinguish all shades of red. This restriction is not bothersome because I want to construct a counterexample to the content view, and in order to do that, I do not need to
talk about all beliefs. I shall use as counterexamples beliefs with contents which are fully expressible by English sentences. Second, the premiss is only about belief reports which S gives about his own beliefs. It is not about belief reports S may give about someone else's beliefs, or reports someone else may give about S's belief.

The second premiss states that if the content of an internal state \( m_1 \) is fully expressible by 'A' and the content of an internal state \( m_2 \) is also fully expressible by 'A', then the content of \( m_1 \) and the content of \( m_2 \) are the same. The question behind this premiss is, under what conditions can we identify the contents of two different internal states. For those contents which are fully expressible, I propose to do this in terms of being fully expressible by the same sentence.

I now want to show that this second premiss is true. Under what conditions is the content of an internal state \( m \) fully expressible by a sentence 'A'? What is this relation of 'expressing' which holds between internal states with contents and sentences? This is a very difficult question; I shall suggest an answer rather than give one. I suggest that the content of an internal state \( m \) is fully expressible by 'A' if and only if 'A' is a linguistic model of \( m \)'s entire mode of presentation. I use 'model' to mean 'a domain of familiar objects behaving in
familiar ways such that we can see how the phenomena to be explained would arise if they consisted of this sort of thing. In the present case, the phenomena to be explained is the way \( m \) represents what it represents. My suggestion, in brief, is to take 'expressible' as 'can be modeled'.

Consider again internal state \( m_1 \) and internal state \( m_2 \), and suppose that sentence 'A' is a model of both \( m_1 \)'s entire mode of presentation and \( m_2 \)'s entire mode of presentation. Does it follow that \( m_1 \) and \( m_2 \) have the same mode of presentation, that they have the same content? Yes. In both cases, the model is the same. Also in both cases, we use the same interpretation rule for going from the model to the modeled, i.e., for going from the characteristics of 'A' doing the modeling to the characteristics of \( m_i \), \( 1 \leq i \leq 2 \), being modeled, viz., \( m_i \)'s entire mode of presentation. Therefore, the same characteristics are being modeled in both cases, i.e., \( m_1 \) and \( m_2 \) have the same mode of presentation. They have the same content.

Someone might object that my argument is invalid; it is possible to have different characteristics of \( m_1 \) and \( m_2 \) modeled by the same model with the same rule for interpreting the characteristics of the model. But this is not possible because interpretation rules for models are functions from characteristics of the model to
characteristics of the modeled, construed as an ordered n-tuple, and it is essential to being a function that given the arguments of the function there is one and only one value.

A second objection is to claim that the interpretation rules used in each case are not the same. The interpretation rule used to go from the characteristics of 'A' to the characteristics of internal state $m_1$ is different from the interpretation rule used to go from the characteristics of 'A' to the characteristics of internal state $m_2$. But this does not seem plausible.

When two competent sincere English speakers use an unambiguous English sentence 'A' to characterize their own beliefs, it is reasonable to say that they are using 'A' in the same way. If two people were to characterize their own beliefs with the same sentence even though they had different beliefs, we would most likely think that one or the other, or both, were either incompetent in English or not sincerely reporting his own belief. Further, if it were common that a sentence 'A' modeled different modes of presentation, and not just a single mode of presentation, it would be difficult for us to communicate to each other our beliefs, hopes, desires, etc.

Finally, someone might object that the expressing relation between the content of a mental state and a
sentence is not a modeling relation. For instance, one might claim that 'A' expresses the content of internal state m because 'A' and m have the same content. I have two replies. First, this claim is compatible with the premiss I am trying to prove because the claim implies the premiss to be proved: if 'A' fully expresses the content of internal state m if and only if 'A' and m have the same content, then, if the content of internal state m₁ is fully expressible by 'A' and the content of internal state m₂ is also fully expressible by 'A', i.e., if 'A' and m₁ have the same content, and 'A' and m₂ have the same content, then the content of m₁ and the content of m₂ are the same. Second, even though the claim implies a premiss I want, I don't like it. I am trying to identify the contents of two distinct internal states in terms of their contents being fully expressible by the same sentence. If 'fully expressing the content' means 'having the same content', then we are not getting any insights on when two internal states have the same content. I think taking 'fully expressing the content' as 'modeling the entire content' gives us a potentially more insightful approach to understanding an internal state's mode of presentation.

Another instance. One might claim that 'A' fully expresses the content of internal state m because 'A' is the content of m. I have in mind philosophers like
Harman who say that we think in natural languages, like English. I reject this claim because it rests on confusing the expression of a mental state's content, which is a linguistic entity, and the internal state, which is a non-linguistic entity. It is unlikely that internal states are linguistic entities because they represent non-conventionally, we do not have to learn how to interpret internal states before they represent for us, and there is good evidence that internal states are non-linear, non-acoustic and non-spatial.

Since there are no successful objections to my argument, I conclude that if the content of an internal state $m_1$ is fully expressible by 'A' and the content of an internal state $m_2$ is also fully expressible by 'A', then the content of $m_1$ and the content of $m_2$ are the same.

I now want to give some cases in which two different believers have belief states with the same content, but their belief states do not represent the same thing. In these cases, the belief states represent in a context dependent manner; consequently, they are not fully characterizable by their content and not fully characterizable solely in terms of what is going on in the head.

Consider the belief Tim expresses when he says, "I am over five feet tall," and the belief Tom expresses
when he says, "I am over five feet tall." Are the contents of Tim and Tom's beliefs fully expressible? Are they fully expressible by 'I am over five feet tall'? If the contents of their beliefs were not fully expressible, then the belief states would be representing in a more subtle way than the language used to model their content could model. But the indexical 'I' seems rich enough to model the way a person usually represents himself to himself, and the predicate 'x is over five feet tall' seems rich enough to model the way an internal state represents the property of being five feet tall. There are not any subtle nuances in the property of being over five feet tall which would suggest that an internal state could represent it, but that English is not discriminating enough to accurately model the way the internal state represented the property. So, the contents of Tim and Tom's beliefs are fully expressible, and are fully expressible by 'I am over five feet tall'.

Tim's belief state is fully expressible by 'I am over five feet tall', and Tom's belief state is fully expressible by 'I am over five feet tall'. Therefore, Tim's belief state and Tom's belief state have the same content. Let us call it content C.

Do their belief states having content C represent in a content independent way? No. Tim's belief state with content C represents Tim as having the property of being
over five feet tall. Tom's belief state with content C represents Tom as having the property of being over five feet tall. Therefore, Tim and Tom's belief states represent an object as having a property in a context dependent way; belief states with content C represent different objects in different contexts.

Consider the belief Tim expressed when he said at 11:55 PM on December 31, 1981, "1982 is starting now," and the belief Tom expressed when he said at 12:05 on January 1, 1982, "1982 is starting now." Are the contents of these beliefs fully expressible, and are they fully expressible by '1982 is starting now'? Yes. These belief states do not seem to be representing in a more subtle or detailed way than English is capable of modeling. '1982' seems rich enough to model the way their belief states picked out the new year, and 'x is starting now' seems rich enough to model the way their belief states represent the property of starting at the present moment. The object and property being represented by each belief state do not seem so complex that an internal state can represent them but not in a way capable of being modeled by English sentences. So, the contents of Tim and Tom's beliefs are fully expressible, and are fully expressible by '1982 is starting now'.

Tim's belief is fully expressible by '1982 is starting now', and Tom's belief is fully expressible by '1982 is
starting now'. Therefore, Tim's belief state and Tom's belief state have the same content, call it C'.

Do their belief states having content C' represent in a context independent way? No. There is an event x and a property F which Tim's belief state represents. It represents 1982 as having the property of starting at 11:55 on December 31, 1981. We can show that it represents this property by considering the conditions under which the predicate in the linguistic model of content C' is truly predicated of an object. It represents the property of starting at 11:55 PM on December 31, 1981, because 'y is starting now' is truly predicated by a person S at 11:55 PM on December 31, 1981, to an object x if and only if x is starting at 11:55 PM on December 31, 1981. There is an event x and a property F which Tom's belief state represents. It represents 1982 as having the property of starting at 12:05 AM on January 1, 1982. It represents this property because 'y is starting now' is truly predicated by a person S at 12:05 AM on January 1, 1982, to an object x if and only if x is starting at 12:05 AM on January 1, 1982. Therefore, Tim and Tom's belief states represent an event as having a property in a context dependent way; belief states with content C' represent the same object as having different properties in different contexts.
Consider the belief Tim expresses at his home when he says, "Mary is here," and the belief Tom expresses at his home when he says, "Mary is here." Are the contents of these beliefs fully expressible, and are they fully expressible by 'Mary is here'? Yes. These belief states do not seem to be representing in a more subtle or detailed way than is capable of being modeled by English. 'Mary' seems rich enough to model the way their belief states pick out Mary, and 'is here' seems rich enough to model the way Tim and Tom locate Mary. Mary and the property being represented in the two cases do not seem to be so complex that they can be represented by an internal state, but not in a way capable of being modeled by English sentences. So, the contents of Tim and Tom's beliefs are fully expressible, and are fully expressible by 'Mary is here'.

Tim's belief is fully expressible by 'Mary is here', and Tom's belief is likewise fully expressible. Therefore, Tim's belief state and Tom's belief state have the same content. Call it C''.

Do their belief states having content C'' represent in a context independent way? No. There is an object x and a property F which Tim's belief state represents. It represents Mary as having the property of being at Tim's house. We can show that it represents this
property by considering the conditions under which the
predicate in the linguistic model of content C'' is truly
predicated of an object. It represents the property of
being at Tim's house because 'y is here' is truly
predicated by a person S at Tim's house to an object x if
and only if x is at Tim's house. There is an object x
and a property F which Tom's belief state represents.
It represents Mary as having the property of being at
Tom's house. It represents this property because 'y is
here' is truly predicated by a person S at Tom's house to
an object x if and only if x is at Tom's house. There-
fore, Tim and Tom's belief states represent a person as
having a property in a context dependent way; belief
states with content C'' represent the same person as
having different properties in different contexts.

These three cases involving indexicalized contents
show that some belief states represent in a context de-
pendent manner. Therefore, some belief states are not
fully characterizable by their content. Since the basic
approach of the content view is to characterize the
attitudes solely in terms of contents and states of the
head, the content view is inadequate to characterize the
attitudes.

Someone might object to my argument claiming that
the contents of Tim and Tom's belief states are not fully
expressed by the characterizations given by Tim and Tom,
and that even though Tim and Tom express their beliefs with the same sentence, they do not have belief states with the same content. In the first case, Tim's belief is also characterizable by 'Tim is over five feet tall', and Tom's belief is also characterizable by 'Tom is over five feet tall'. In the second case, Tim's belief is also characterizable by '1982 is starting at 11:55 PM on December 31, 1981', and Tom's belief is also characterizable by '1982 is starting at 12:05 AM on January 1, 1982'. In the third case, Tim's belief is also characterizable by 'Mary is at Tim's house', and Tom's belief is also characterizable by 'Mary is at Tom's house'. In each of these cases, the characterizations are changed into nonequivalent expressions; therefore, in each case, Tim and Tom's belief states do not have the same content. And if they do not have the same content, we cannot expect them to represent the same object as having the same property.

But it is false that Tim and Tom's belief states are characterizable in the additional ways the objector specifies. It is one thing for Tim to pick himself out with 'I', to indicate the time using 'now', and to indicate location using 'here'. It is quite another thing for Tim to pick himself out using 'Tim', indicate the time using '11:55', and indicate place using 'at Tim's house'. Tim may be willing to use 'I am over five feet tall',
'1982 is starting now', and 'Mary is here', as expressions of his beliefs, but reject 'Tim is over five feet tall', '1982 is starting at 11:55 PM on December 31, 1981', and 'Mary is at Tim's house' as expressions of his beliefs. This tells us that we cannot replace the indexical terms in Tim's original expressions of his beliefs with other terms which refer to the same person, time, or place as the indexical. The same can be repeated for Tom. Therefore, the objector is wrong to claim that Tim and Tom's belief states have different contents in each of the three cases on the grounds that the original expressions of Tim and Tom's beliefs can be changed in such a way that they are no longer equivalent.

I conclude that the content view is inadequate to distinguish among all beliefs. Since some beliefs with the same content represent in a context dependent manner, beliefs are not fully characterizable solely in terms of what is going on in the head or solely in terms of their content. The lesson we learn is that in order to fully characterize beliefs, an adequate theory of belief must make reference to what beliefs represent.

1.8 CONCLUSION

We have examined two theories of belief, the relational view and the content view. The relational view tries to classify the attitudes in terms of what the
attitudes are directed at. This theory had two problems: some mental attitudes are not directed upon an object, and two different instances of the same attitude may be directed upon the same things. The content view attempts to classify the attitudes in terms of functional roles and contents. The problem with this view is that some instances of the attitudes represent in a context dependent manner; therefore, two different instances of the same type of attitude may have the same content, i.e., mode of presentation, and yet represent different things. Such instances are not fully characterizable by their contents, and are not fully characterizable solely in terms of what is going on inside the head.

These three problems tell us that an adequate theory of belief should have three characteristics. First, it should allow for beliefs which do not represent an object. Second, it should define belief in part in terms of the belief's mode of presentation. Third, it should make reference to what the belief represents, if anything.

In Chapter 3, I shall propose a theory of belief which has these three characteristics.
FOOTNOTES


4 Plato, _Republic_ 477c.


6 Plato, _Republic_ 478a-b.


11 Cf. David Lewis, _op. cit._

12 G. E. Moore, _Some Main Problems of Philosophy_


17 Aristotle, *De Anima* 429a13-18.


22 Rene Descartes, op. cit., p. 237.

23 W. V. O. Quine, op. cit., p. 216.


26 John Perry, op. cit.


CHAPTER 2

THREE HYPOTHESES ON DE RE BELIEF

2.1 INTRODUCTION

In this chapter I want to consider a subset of beliefs, viz., those beliefs about specific, existing individuals or objects. This set of beliefs is contrasted with those beliefs either about nonspecific, existing individuals or about nonexisting objects, e.g., Pegasus and The Fountain of Youth.

Some examples may illustrate the difference between attitudes about specific, existing individuals and attitudes about nonspecific, existing individuals.

Compare John and Joe. Both want to buy a used sailboat, have the money to purchase one, and believe that there are plenty of sailboats to choose from. John has made many trips to various marinas, and has made a choice. There is a specific sailboat John wants to buy. Joe, however, has not yet had the time to go looking at sailboats. He wants to buy a sailboat, but has not decided which one he wants to buy. There is no particular sailboat Joe wants to buy yet. In this case, John wants to buy a specific, existing object. Joe wants to buy an existing object, but he has no specific boat in mind.
Compare the CIA agent Mary and the dentist Martha. Both believe that there are spies, and that there is a shortest spy among them. Both believe that the shortest spy is a spy. Agent Mary knows who the shortest spy is, the shortest spy being a co-worker. Martha, like most of us, does not know who the shortest spy is. In this case, Mary has a belief about a specific, existing individual. Martha has a belief about an existing individual, but not about anyone in particular.

The question of this chapter is: under what conditions does someone have a belief about a specific, existing individual or object? I shall examine and criticize the major answers to this question.

We shall call beliefs about specific, existing individuals or objects 'de re beliefs'. I use this name because since Quine's original discussion in "Quantifiers and Propositional Attitudes," de re beliefs have traditionally been defined as those beliefs about specific, existing individuals. My use of the name is traditional. However, I do not use the term to imply that there are two kinds of beliefs, de re and de dicto; I leave it open to investigation whether there are two kinds of belief, or only one. Independently of the issue of whether there are two kinds of belief or only one, there are beliefs about specific, existing individuals, and it is these which are called 'de re'.
Two requirements must be fulfilled for a belief to be de re. First, the object the belief is about must exist. I include this requirement because it has traditionally been a necessary condition for being a de re belief.

Someone might question this tradition. If we include an existence requirement, then in some cases whether a belief is de re depends upon something outside the believer's head. For example, assuming all other conditions for being a de re belief are satisfied, whether my belief that Homer wrote epic poems is de re depends on whether Homer existed. But that seems strange. We should be able to determine whether my belief is de re solely by virtue of what is going on in my head; therefore, we should not include an existence requirement. If there were an existence requirement, then de re belief would be a state of affairs which in part would obtain in virtue of the relation between the subject's beliefs and the object in question.

To illustrate, it seems possible to capture the difference between de re beliefs and de dicto beliefs without appealing to an existential commitment. One could try to capture the difference solely in terms of the intrinsic characteristics of the belief states; in particular, one might say that de re beliefs have some special kind of content, i.e., some special kind of mode
of presentation, and drop the existence requirement altogether.

Below we shall consider three different versions of what I call the content hypothesis. This hypothesis says that a belief is about a specific individual if and only if the belief has some special content. The three versions differ in their specifications of the special content. As we shall see, none of these hypotheses work.

Another illustration. We might try to capture the difference between de re and de dicto belief in terms of having a sufficient amount of information about the object the belief is about. This hypothesis says that someone has de re beliefs about those things one can supply enough information about. This hypothesis allows for de re beliefs about, say, Sherlock Holmes since we can supply a lot of information about him. If we can capture the difference between de re and de dicto belief in terms of the informativeness of the agent's beliefs, we can drop the existence requirement. 2

But this hypothesis does not work. Suppose Martha dreams up an elaborate story about the shortest spy, confuses fact and fiction, comes to believe the story, and that the story is in fact true. In this case, Dr. Martha can supply a lot of information about the shortest spy, but nevertheless, she still does not have a de re belief; the shortest spy played no role in the acquisition
of her beliefs. Therefore, we cannot capture the difference between de re and de dicto belief solely in terms of how much information the agent has about the object the belief is about.

Given the failure to explain the difference between de re and de dicto belief in terms of a special content and in terms of having enough information, I conclude that we cannot capture the difference between de re and de dicto belief solely in terms of what is going on inside the head.

What is the traditional reason for including an existence requirement? Consider the ambiguous

(a) Ralph believes that there are spies.

Quine, in "Quantifiers and Propositional Attitudes," disambiguates (a) into

(b) Ralph believes that someone is a spy,

and

(c) There is someone whom Ralph believes to be a spy.

(c), says Quine, exhibits the relational sense of 'believes'. Unlike (b), (c) implies

(d) (∃x)(Ralph believes that x is a spy).

For Quine, there is an existence requirement because de re belief sentences make an existence claim. Singular terms in the content clauses of de re belief sentences purport to refer to an existing individual. Without the
existential commitment, we would not, says Quine, be able to express the distinction between (b) and (c) we are trying to capture. Since Quine, some philosophers have disagreed with his account of the logical structure of ordinary English sentences like (c), but almost everyone has agreed that (c) makes a commitment to the existence of the object the belief is about, and that (c) has to make that commitment to capture the difference between (b) and (c).

What about sentences like

(e) Johnny believes of Santa Claus that he is fat?

(e) is a meaningful sentence of ordinary English, but it is false since it implies

(f) \( (\exists x)(x=\text{Santa Claus} \& \text{Johnny believes that } x \text{ is fat}), \)

which is false because Santa Claus does not exist.

What entities are we going to count as existing?

This is an important question, one often avoided by philosophers writing on de re belief. The question is avoided because it is very difficult to answer. Also, if you want to write about de re belief, you usually are not willing to be sidetracked on ontological questions for too long. The question is important because, if all other requirements for being a de re belief are met, whether a belief is de re or not will depend entirely on whether the belief state represents an existing object.
One popular way to avoid any ontological question is to narrow the scope of one's investigation by asking under what conditions someone has a de re belief about physical things which either existed in the past or are currently existing. I want to offer a more general account of de re belief, and will not restrict the domain of the quantifiers to a subset of all existents. The quantifiers will range over all existing things.

So, what entities are we going to count as existing? On assumption, I will count past, present and future physical objects. Also, I include abstract objects, like numbers. Our quantifiers will range over all these objects.

What about fictional creatures and other merely possible objects? In Chapter 1, Section 1.5, I briefly argued that we do not need to postulate a domain of fictional creatures to account for the truth of statements like 'Holmes retired early to think about the case' and 'Sherlock Holmes is a detective'. I mentioned John Searle's analysis of statements in fictional discourse and his proposal for the truth conditions of statements about fictional creatures; neither postulates a domain of fictional creatures. So, there is no reason for extending the domain of the quantifiers to include fictional creatures. Further, I reject merely possible objects on the grounds that they have vague identity conditions.
The second requirement to have a de re belief is that the believer must have a specific individual or object in mind. We shall call this 'the specificity requirement'. The biggest problem we shall have in answering the present chapter's question lies with the specificity requirement. It is very difficult to state the conditions under which the specificity requirement is satisfied. In this chapter I shall critically evaluate several hypotheses which attempt to state the conditions under which the specificity requirement is satisfied.

We need to note several things. First, the difference between beliefs about specific individuals and beliefs about nonspecific individuals does not lie with the individuals the beliefs are about. Agent Mary and Martha have beliefs about the same individual. 'Specific' and 'nonspecific' do not describe the object the belief is about, even though in phrases like 'S has a belief about a specific/nonspecific individual' they function as adjectives modifying 'individual'. 'Specific' and 'nonspecific' tell us something either about the believer or about the relation between the believer and the object the belief is about. 'Specific' tells us either that something special is going on inside the believer's head or that some special relation holds between the believer and the object. 'Nonspecific' tells us either that there is nothing special going on inside the believer's head, or
that no special relation holds between the believer and the object.

Second, thinking about a specific individual is not the same as thinking about an individual one can specify, i.e., truly describe in sufficient detail. For example, suppose Martha dreams up a story about the shortest spy, and confusing fact and fiction, comes to believe the story. Further, suppose that the story just happens to be true. In this case, Martha can describe the shortest spy in a fair amount of detail, but Martha is not thinking about a specific individual when she thinks about the shortest spy.

Two notes about specifying an individual. First, to specify an individual and to refer to an individual are not necessarily the same. Martha can refer to the shortest spy with 'the shortest spy', but she cannot specify the shortest spy with 'the shortest spy' because she cannot describe him in any more detail. I say 'not necessarily the same' because in some cases, to specify an object and to name it may be the same, e.g., referring to the number 1 with '1' or 'one'.

Second, to specify an object a and to specify who a is are different. 'a' in 'S can specify a' occurs transparently; S can specify a even if S does not pick a out with an internal representation with a content expressible in part by 'a'. 'a' in 'S can specify who a
is' occurs opaquely; S can specify who a is only if S picks a out with an internal representation with a content expressible in part by 'a'.

Let us call those beliefs about nonspecific existents and nonexistents 'de dicto beliefs'. I use this name because, arguably, these beliefs have contents adequately expressible by propositions, or if you prefer, closed sentences. The set of de dicto beliefs and the set of de re beliefs make up the set of all beliefs. (I do not mean to deny that there are no interesting subsets of either de re or de dicto beliefs. I have in mind de se beliefs, beliefs about oneself.)

One more caveat. The question, under what conditions does someone have a belief about a specific, existing individual or object, is not the same question as, how do we characterize or express the content of de re beliefs. To find an adequate linguistic expression of the content of a de re belief is not necessarily to find the conditions under which someone has a de re belief. It is possible, for example, for A and B to agree that the content of de re beliefs are best expressed by, say, open sentences, and yet disagree on the conditions under which someone has a de re belief. I give this warning because several of the hypotheses discussed below for satisfying the specificity requirement are suggested by expressions of the contents of de re beliefs.
In Section 2.2, we shall consider the description hypothesis; it states that de re beliefs are those beliefs describable by de re belief sentences. I shall reject this hypothesis because it is uninformative.

In Section 2.3, we shall consider the three content hypotheses; they state that de re beliefs have a special content. Each version of the content hypothesis will be rejected on its own shortcomings.

In Sections 2.4 and 2.5, we shall consider two versions of the acquaintance hypothesis. The acquaintance hypothesis states that we have de re beliefs about those objects we are acquainted with. The acquaintance hypothesis is formulated or expressed as a causal hypothesis; acquaintance is cashed out in terms of a causal connection. The first version of the causal hypothesis I consider was proposed by David Kaplan. I reject his version on the grounds that it confuses linguistic and psychological analyses of de re belief. The second causal hypothesis I consider was proposed by Michael Beebe. He avoids Kaplan's confusion, and offers a psychological analysis. I reject Beebe's proposal on the grounds of inadequacy; Beebe offers no general framework in which to plug his ideas, he fails to work out the details of his view, and his account is open to several objections.
2.2 THE DESCRIPTION HYPOTHESIS

The issue of this chapter is the conditions under which someone has a de re belief. A parallel but distinct issue is the logical form of de re belief sentences. Someone might try to combine claims about de re belief sentences and the conditions under which someone has a de re belief by claiming that de re beliefs are those beliefs describable by de re belief sentences. We shall call this claim the Description Hypothesis. If true, it gives us a necessary and sufficient condition for being a de re belief.

This hypothesis is suggested by philosophers who argue that de re beliefs are represented by de re belief sentences, or at least, that de re beliefs can be unambiguously expressed by de re belief sentences. For example, in the classic "Quantifiers and Propositional Attitudes," Quine says,

The force of '(∃x)(x is a lion & Ernest is hunting x)' is that there is some individual lion (or several) which Ernest is hunting; stray circus property, for example .... '(∃x)(x is a sloop & I want x)' is suitable in so far only as there may be said to be a certain sloop that I want.6

Quine is here using de re sentences to express de re attitudes. For belief, Quine compares '(∃x)(Ralph believes that x is a spy)' and 'Ralph believes that (∃x)(x is a spy)', and states, "The difference is vast; indeed, if Ralph is like most of us [the latter] is true
and [the former] is false." Here Quine uses the relational sense of 'believes' to express a de re belief and the notional sense of 'believes' to express a de dicto belief.

Jaakko Hintikka also uses belief sentences of different logical form to represent different types of belief.

Someone may have a belief concerning the next Governor of California, whoever he is or may be, say that he will be a Democrat. This is different from believing something about the individual who in fact is the next Governor of California. In formal terms, the distinction is illustrated by the pair of statements 'B(a (g is a Democrat))' and '(\exists x)((x=g) & B_a (x is a Democrat))'.

In this section, I shall argue that the Description Hypothesis is true, but uninformative because we do not learn the conditions under which the specificity requirement is satisfied.

Many belief sentences, e.g.,

(1) Holmes believes that the murderer of Smith is insane

are ambiguous. (1) can be interpreted as

(2) Holmes believes the proposition that the murderer of Smith is insane,

or as

(3) The murderer of Smith is believed by Holmes to be insane.

How one interprets (1) depends on the intentions of the reporter of the belief sentence. (2) gives (1) a de dicto
interpretation. (3) gives (1) a de re interpretation. (3) asserts that a certain relation holds between Holmes, the murderer of Smith, and the property of being insane. (We could talk instead about the open sentence 'x is insane' or the corresponding propositional function. Nothing in what follows depends on which we choose.)

What is the logical form of (3)? We might represent its logical form as

\[(3') \text{ Believes } (\text{Holmes, (the murderer of Smith), being insane}),\]

where the corner brackets indicate a sequence. Let us now ask whether (3') describes a de re belief.

(3') represents a de re belief. The existence requirement is satisfied because the murderer of Smith exists. The specificity requirement is satisfied because the predicate in (3') truly describes only those beliefs in which the believer has the object the belief is about specifically in mind. So, it seems we have an hypothesis that works. A belief is de re if and only if it is describable by a sentence which has the logical form of

\[(4) \text{ Believes } (S, \langle t'_1, \ldots, t'_n \rangle, F(x'_1, \ldots, x'_n)),\]

where 't'_i ' is a singular term. Belief sentences having this form describe de re beliefs because the terms have singular reference and the predicate describes only those beliefs about objects the believer has specifically in mind.
2.3 THE CONTENT HYPOTHESES

There are two requirements for a belief to be de re, the existence requirement and the specificity requirement. The existence requirement is easy to satisfy; it is satisfied when the belief represents an existing thing. Let us suppose that the existence requirement is satisfied. Then, whether a belief is de re depends on whether the specificity requirement is satisfied. Under what conditions is the specificity requirement satisfied?

Addressing itself to this question, the content hypothesis states

a belief is about a specific individual if and only if its content (mode of presentation) guarantees specificity, i.e., guarantees that that belief is about a specific individual.
We shall now consider three versions of the content hypothesis. They vary on exactly how the content guarantees specificity.

According to the first hypothesis, the content of an internal belief state guarantees specificity if and only if

**Content Hypothesis #1**

the object the belief is about is itself part of the belief's content.

I shall assume that an object \( x \) is part of the content of an internal state only if the agent is directly or immediately aware of \( x \). If the agent were not immediately aware of \( x \), then there would be some internal state representing \( x \) in some way, and then \( x \) would not be part of the content.

The linguistic parallel to content hypothesis #1 is that the contents of de re beliefs are adequately expressed by open sentences.

Content hypothesis #1 is implicitly suggested by David Kaplan's "How To Russell a Frege-Church." In that paper, Kaplan reconsiders Bertrand Russell's analysis of propositions in which an individual may be an immediate element. Content hypothesis #1 is not explicitly suggested because Kaplan restricts his attention to modal contexts. It is implicitly suggested since propositions so construed give an initially plausible way to
characterize the contents of de re beliefs. Also, I am
told that Kaplan has thought about characterizing de re
beliefs with Russellian propositions, although he has not
made any proposals in print.

I want to prove that content hypothesis #1 is neither
necessary for specificity nor sufficient for all cases.

Content hypothesis #1 is not necessary for having a
dere belief. There are some individuals x such that I
have beliefs specifically about x and I have never been
directly aware of x. For example, I have beliefs
specifically about Abraham Lincoln, but I have never been
directly aware of him. He was dead long before I was
born. If so, I have dere beliefs about Lincoln, but he
is not part of the content of any of the internal belief
states which represent him for me. If Lincoln is not part
of the content of any of my beliefs about him, Content
Hypothesis #1 is not necessary for having a belief about
a specific individual. Therefore, Content Hypothesis #1
is not necessary for having a belief about a specific
individual.

Content Hypothesis #1 is sufficient for having a
belief about a specific individual only if we are some-
times directly aware of objects. Here we reach a highly
debated issue. Is perception always indirect, or is it
sometimes direct? Are we directly aware of the contents
(in the sense of 'contained') of subjective experience
or of abstract objects? Am I directly aware of myself?

The evidence that all perception is indirect is strong. Cognitive psychologists say that all contact with material objects involves a causal chain from the external object to the agent's mind or brain, a chain in which there are causal intermediaries between the external object and the end result in the brain. If perception involves such a causal chain, then all perception is indirect. Therefore, all perception is indirect.

There are some traditional epistemological objections to this thesis. If all perception is indirect, then there is no procedure to check whether the information given by the percept is accurate. If there is no such procedure, then no perceptual belief is justified. Therefore, if all perception is indirect, then no perceptual belief is justified. This objection fails. There is no checking procedure only if all procedures for checking the accuracy of the information involve comparing the percept and the perceived. But some procedures involve comparing the percept with other percepts and past experiences. Therefore, the objection falsely claims there are no checking procedures if all perception is indirect.

A second objection goes like this.
(a) Suppose for *reductio ad absurdum* that perceiving things as having or lacking certain characteristics requires an internal representation \( R \).

(b) If (a), then the agent is aware that the internal representation \( R \) has or lacks certain characteristics.

(c) If the agent is aware that the internal representation \( R \) has or lacks certain characteristics, then there is an internal representation \( R' \), \( R' \neq R \), through which the agent has this awareness.

(d) If the agent is aware that \( R \) has or lacks certain characteristics through \( R' \), then the agent is aware that \( R' \) has or lacks certain characteristics.

(e) If the agent is aware that \( R' \) has or lacks certain characteristics, then there is an internal representation \( R'' \), \( R'' \neq R' \), \( R'' \neq R \), through which the agent has this awareness.

(f) This sequence can be repeated *ad infinitum*.

(g) Therefore, if every act of perception requires an internal representation, then each perceptual act requires an infinite number of internal representations and an infinite number of acts of awareness.

(h) This is impossible.

(i) Therefore, some acts of perception do not require an internal representation.

This objection fails because it falsely assumes that the relation between the agent and his internal representations is the same as the relation between the agent and external objects. But these relations are not the same. The agent is indirectly aware of the perceived object, but directly
aware of the internal representation. Therefore, premiss (c) is false. It is not the case that the agent's awareness of internal representation R requires an additional internal representation R', R' ≠ R.

We conclude that all perception is indirect. If this is correct, then Content Hypothesis #1 is unable to explain how we can have de re beliefs about specific material objects.

What about our awareness of the contents of subjective 'experience' of abstract 'objects' and self-awareness? As I assumed two paragraphs ago, we are directly aware of the contents of subjective experience. As for an awareness of abstract objects and self-awareness, I have no firm, thought-out position. Some philosophers claim that we are directly aware of abstract objects and of ourselves. So, it is at least a possible position that Content Hypothesis #1 is sufficient in some cases.

However, even if we are directly aware of the subjective contents of our minds, of abstract objects, and of ourselves, we should still reject Content Hypothesis #1 on methodological grounds. We want a single principle which will account for the specificity of all de re beliefs, especially perceptual beliefs about material objects, which are paradigm de re beliefs. Content Hypothesis #1 does not meet this standard. So, we should look elsewhere for a principle which will explain the
specificity of all de re beliefs, and come back to Content Hypothesis #1 only if we fail to find such a principle. The next hypothesis says that the content of an internal belief state $m$ guarantees specificity if and only if

**Content Hypothesis #2**

$m$'s mode of presentation (content) is context relative.

$m$'s mode of presentation is context relative if and only if what $m$ represents depends on the identity of the agent, the time, or the location. The corresponding linguistic claim is that the contents of de re beliefs are adequately expressed by sentences containing indexical expressions.

This hypothesis has been proposed by Tyler Burge in "Belief De Re." He states, "A de re belief is a belief whose correct ascription places the believer in an appropriate nonconceptual, contextual relation to the objects the belief is about," and Burge adds, "the crucial point is that the believer's relation to the relevant object is not merely that of the concepts' being concepts of the object, . . . not merely that he conceives of it or otherwise represents it." Others have followed Burge in accepting Content Hypothesis #2, e.g., Lynne Rudder Baker and Jan David Wald in "Indexical Reference and De Re Belief."
I want to prove that Content Hypothesis #2 is neither sufficient nor necessary for having a belief about a specific individual.

Content Hypothesis #2 is not sufficient. Suppose that S has a belief state with a content adequately expressible by 'the current shortest spy is a spy', and that S believes this because of the triviality of 'the current shortest spy is a spy.' This belief state's mode of presentation is context relative; who it represents depends on the time. If Content Hypothesis #2 is sufficient, then S has a belief about a specific person. But S does not have a belief about a specific person; S does not have a particular person in mind. Therefore, Content Hypothesis #2 is not sufficient. Context relative modes of presentation do not guarantee specificity.

Content Hypothesis #2 is not necessary. Suppose S has several belief states such that (i) they represent an individual a in a context independent manner, (ii) they all have contents expressible by different informative identity statements, and (iii) S acquired those beliefs by reading a history of a written by someone acquainted with a, and written without the use of indexical expressions. If so, then S can identify a in a context independent manner. If S can identify a, and has acquired his identifying believes in the way I described, then S has beliefs specifically about a. So, S has beliefs specifically
about \( a \). Now, if \( S \) identifies \( a \) in a context independent manner, and has beliefs specifically about \( a \), then Content Hypothesis \#2 is not necessary. It is possible to have a belief about a specific individual even if the belief state's mode of presentation is not context relative.

The third version of the Content Hypothesis says that the content of an internal belief state \( m \) guarantees specificity if and only if

**Content Hypothesis \#3**

\( m \)'s mode of presentation is non-descriptive.

This version has been proposed by John Pollack in "Thinking about an Object." He says,

> There is some kind of mental representation [which] does not consist of thinking of the objects under a description. I propose to call these 'de re ways of thinking of objects,' or more briefly, 'de re representations.' Belief wherein one employs de re representations will be called 'de re beliefs'.

Under what conditions does an internal representation represent non-descriptively? This is unclear. Pollack spends most of his time answering a different question, "What determines the representatum of a de re representation, i.e., a non-descriptive representation?" Or stated differently, Given that \( t \) is a de re representation, under what conditions does \( t \) represent \( x \)? Pollack's question assumes that we already know what a non-descriptive representation is, and so, does not give us the conditions
under which an internal representation is a non-descriptive representation. As I see it, Pollack defines a non-descriptive representation negatively; it is a representation which does not represent descriptively. S is thinking about an object non-descriptively if and only if S is not thinking about it under a description, if and only if S is thinking about it independently of its satisfying any description.

I now want to argue that Content Hypothesis #3 is neither sufficient nor necessary to guarantee specificity.

Content Hypothesis #3 is not sufficient to guarantee specificity because we can think about an object independently of its satisfying any description without having that object specifically in mind. Suppose that there is an x such that 'the ø' denotes x, i.e., suppose that 'the ø' is a proper definite description. Now suppose that S is thinking about whatever 'the ø' denotes, i.e., that S is thinking about the ø under the description 'the ø'. Suppose that while S is thinking about the ø, S abstracts from this cognitive process the way he picks the denotation out, so that S is thinking about the denotation of 'the ø', but as if he were not picking the denotation out in any particular way. If S goes through this abstracting process, then S is thinking about the ø independently of the ø's satisfying any description.

Does it follow that if S has any beliefs about the ø
then S has de re beliefs about the Ø? No. All that follows is that S has beliefs about, or is thinking about, a single, existing individual. S is not thinking about a specific individual simply as a result of carrying out the abstracting process. Reconsider the difference between the used sailboat buyers, Joe and John. The difference remains the same even if Joe carries out the abstraction process described above. Joe is not any closer to buying some particular sailboat simply by picking out some sailboat with 'the sailboat I shall buy' and then abstracting away how he picked it out. Likewise, Martha does not come to know who the shortest spy is by picking out some person with 'the shortest spy' and then abstracting this away. The difference between her and Agent Mary remains as great even if Martha goes through the abstraction process. Since we can think about, and have beliefs about, an object independently of its satisfying any description without having that specific object in mind, Content Hypothesis #3 is not sufficient to guarantee specificity.

Nor is Content Hypothesis #3 necessary. Suppose I am thinking about my wife, Lauren. I have many de re beliefs and thoughts about her—de re in the sense of having beliefs and thoughts about an actual specific person. Now, there are occasions in which I have a de re belief about Lauren, and yet conceive her under a
description. For example, sometimes I conceive her under the description 'my wife', sometimes under 'the only daughter of Roy and Frances Pate', and sometimes under her name 'Lauren'. This is not to deny that at times I may conceive her non-descriptively, but it seems too strong to say that every time I have a de re belief, thought, desire, etc., about her, I conceive her non-descriptively.

Pollack might object saying that when he thinks of his wife, he thinks about some particular woman, and would think about that same woman even if all descriptions he can give are in fact false of that woman. If so, Pollack claims, he is not thinking of her under any description.

In reply, I grant the possibility that all his descriptions are false. But what follows? It follows that IF all his descriptions are false, he is thinking of his wife non-descriptively. But since it is rarely if ever the case that all the descriptions someone can give about an individual he is acquainted with are false, it does not follow that every time someone has a de re belief or thought, he is thinking non-descriptively. Very few of my descriptions of Lauren are false. Without this stronger consequence, Pollack's objection fails.

Since it is possible to have a de re belief without conceiving the object the belief is about non-descriptively, Content Hypothesis #3 is not necessary for specificity.
We have considered three versions of the Content Hypothesis. None were successful in explaining the specificity of all de re beliefs. I conclude that the strategy to explain the specificity of de re beliefs in terms of some special kind of content should be abandoned.

2.4 THE ACQUAINTANCE HYPOTHESIS:
KAPLAN'S CAUSAL VERSION

The content hypotheses tried to explain the specificity of de re beliefs in terms of a belief state having some special kind of content. We found that none of the content hypotheses worked. Another strategy is to explain the specificity of de re beliefs in terms of some special relation between the agent's belief and the object it represents.

One hypothesis of this type often proposed is that someone has a belief about a specific individual if and only if the believer is acquainted with or has experienced the individual. This hypothesis is suggested by Bertrand Russell's distinction between knowledge by acquaintance and knowledge by description.\(^{12}\) I can think specifically about an individual I am acquainted with, but I cannot think specifically about an individual I know only by description. On this hypothesis, the acquaintance or experience guarantees specificity.

The most common way to formulate the acquaintance hypothesis is in terms of a causal connection of an
appropriate type. On this formulation, the causal connection guarantees specificity. The causal hypothesis was first suggested by Keith Donnellan's "Reference and Definite Descriptions," and Alvin Goldman's "A Causal Theory of Knowing." In "Quantifying In," David Kaplan was the first to give a detailed analysis of de re belief in part in terms of a causal connection.

According to Kaplan, a person S has a de re belief about a if and only if

(5) (∃α)( R(α, a, S) & S R\(α\) is F ),

where 'R(α, a, S)' abbreviates 'α represents a for S', and is satisfied if and only if

(6) (a) α denotes a,
(b) α is a name of a for S,
& (c) α is (sufficiently) vivid.

Kaplan says that α denotes a on the grounds that x represents y only if x denotes y. Kaplan is not suggesting anything new here by analyzing representation in terms of denotation. Such an approach had already been proposed by Nelson Goodman in Languages of Art, although Goodman was not working specifically on internal representation.  

α is a name of a for S if a is a crucial factor in S's acquisition of α. Speaking about pictures, Kaplan says, "For a picture to be of a person, the person must serve significantly in the causal chain leading to the picture's production and also serve as the object of the picture." α is a name token. "The genetic character of
a picture is a function only of the picture-token. In order to accommodate genesis, I use 'picture' throughout in the sense of 'picture-token'.\textsuperscript{18} As for names, Kaplan says, "Ralph may acquire a proper name in a number of different ways. He may have attended a dubbing with the subject present. I reconstruct such dubbings as a stipulative association of a name with a perception of the subject. Thus the name becomes a name of the subject . . . . Another presumably more common way to acquire a proper name is in casual conversation or reading. In such cases we retrace the causal sequence from Ralph back to its immediate source and so on."\textsuperscript{19} In other words, S has a de re belief about a only if S either experienced a face to face or experienced a in some indirect way.

Kaplan's requirement that \( \alpha \) be vivid is a restriction on \( \alpha \)'s descriptive content; it must contain a sufficient amount of information about a. "If the name is such, that on the assumption that there exists some individual x whom it both denotes and resembles we should say that S knows x or is acquainted with x, then the name is vivid."\textsuperscript{20} A name's descriptive content determines the name's vividness, and "increase in detail always increases vividness."\textsuperscript{21} Kaplan's account requires that \( \alpha \) contain at least some qualifying information about a. The context determines how much is required.
"Quantifying In" has provoked a lot of discussion since its appearance in 1969, but there has been only one criticism which has been widely accepted. Tyler Burge forcefully raised the objection in "Belief De Re." Burge's criticism has been so persuasive that no one as far as I know has challenged it in print. Since I think that the acquaintance/causal hypothesis is the right track to go on, I shall reply to Burge's objection.

As I understand Burge's argument, it proceeds in two steps. In the first step, Burge distinguishes two interpretations of the representation relation in

\[(5) \ (\exists \bar{\chi})(R(\bar{\chi},a,S) \ & \ S \ B \ \bar{\chi} \ is \ F)\).

On the weak interpretation, Kaplan's own, 'R(\bar{\chi},a,S)' holds if and only if

\[(6) \ (a) \ \bar{\chi} \ denotes \ a, \]
\[(b) \ \bar{\chi} \ is \ a \ name \ of \ a \ for \ S, \]
\[(c) \ \bar{\chi} \ is \ (sufficiently) \ vivid, \]

where in (6a) there is no restriction on how \(\bar{\chi}\) denotes \(a\).

On the strong interpretation, 'R(\bar{\chi},a,S)' holds if and only if

\[(7) \ (a) \ \bar{\chi} \ denotes \ a \ in \ a \ content \ independent \ manner, \]
\[(b) \ \bar{\chi} \ is \ a \ name \ of \ a \ for \ S, \]
\[(c) \ \bar{\chi} \ is \ (sufficiently) \ vivid, \]

where in (7a) there is a restriction on how \(\bar{\chi}\) denotes \(a\).

The argument in the first stage is that de re belief is reducible to de dicto belief only if 'R(\bar{\chi},a,S)' is given its strong interpretation, and that since Kaplan's key thesis is that de re belief reduces to de dicto belief,
Kaplan should go with the strong interpretation of the representation relation. In the second stage, Burge argues against the strong interpretation by showing that in some de re beliefs, \( \alpha \) denotes the object the belief is about in a context dependent manner.

I want to defend Kaplan against Burge. I shall not do so by defending the strong interpretation expressed in (7). I think Burge is absolutely right in rejecting it. Instead, I shall defend Kaplan by criticizing Burge's argument that he needs to give "\( R(\alpha, aS) \)" the strong interpretation.

Burge presents the first stage of his argument as follows:

In requiring that the representing name-type denote an object, one requires that the name itself (given its meaning) individuate the object in a context-independent manner. Of course, it is possible that Kaplan did not specifically intend for his term 'denote' to be taken so strictly. One might say that his 'denotes' was tacitly relativized to a context. But this move would amount to foregoing the attempt to reduce de re belief to de dicto belief. For, insofar as the thought symbol denotes the relevant object only relative to a context, the content of the believer's attitude does not depend purely on what is expressed (dictum) by his symbols, or on the nature of his concepts."\(^{23}\)

The first and last sentences show that Burge is assuming a certain epistemic characterization of de re and de dicto belief. According to Burge, a de dicto belief is "a belief that is fully conceptualized,"\(^{24}\) which means that
the belief state represents in a context independent manner. "A de re belief is a belief whose correct ascription places the believer in an appropriate non-conceptual, contextual relation to objects the belief is about." This means that de re belief states represent in a context dependent manner.

As I see it, Burge's argument against the weak interpretation, when fully spelled out, goes like this:

(a) De re beliefs have nonconceptual elements, i.e., they represent in a context dependent manner.

(b) De dicto beliefs are fully conceptualized, i.e., they represent in a context independent manner.

(c) De re beliefs reduce to de dicto beliefs iff de re beliefs are full conceptualized. (from (a) & (b))

(d) Assume for reductio that we give Kaplan's representation relation its weak interpretation.

(e) If (d), then not all de re beliefs are fully conceptualized (since there is no restriction on how \( \alpha \) denotes).

(f) If not all de re beliefs are fully conceptualized, then not all de re beliefs are reducible to de dicto beliefs. (from (c))

(g) Therefore, if (d), then not all de re beliefs are reducible to de dicto beliefs. (from (e) & (f))

(h) Kaplan's key thesis is that de re beliefs are reducible to de dicto beliefs.

(i) Therefore, Kaplan should not give the representation relation its weak interpretation; rather, he should give it the strong interpretation.
I want to criticize Burge's argument on two counts. First, there is an equivocation in 'reduce' which needs to be brought to light. Second and most importantly, Burge's characterizations of de re and de dicto beliefs are wrong; therefore, premises (a) and (b) are false.

What does Kaplan mean when he says that de re is reducible to de dicto? Kaplan goes from being clear to being unclear in "Quantifying In." In the first part, Kaplan is worried about Quine's introduction of a new three-place belief predicate to describe de re beliefs. Kaplan criticizes the introduction of this new primitive predicate on the grounds that it is ad hoc. Kaplan goes on to argue that we do not need to introduce the new belief predicate because we can describe de re beliefs using the familiar two-place de dicto belief predicate. In the early part of "Quantifying In," Kaplan's reduction thesis is simply the claim that we can describe all beliefs, de re or de dicto, using one belief predicate. We should note that with the early part of "Quantifying In" centering on a linguistic question, \( \alpha \) in (5) initially ranges over linguistic entities like names, descriptions, and Fregean senses.

However, after Kaplan starts discussing exportation, "Quantifying In" becomes less about belief sentences and more about what goes on inside the head when someone has a de re belief. Kaplan slides from a linguistic issue to an
issue in philosophy of mind. We see this, for example, when Kaplan extends the range of $\mathcal{L}$ to include mental items in addition to linguistic items. Further, Kaplan does not seem aware of this transition. The result of this transition is that the claim Kaplan wants to make with his reduction thesis becomes unclear. Does Kaplan want to claim only that de re beliefs are describable by de dicto belief sentences, or does he want to make some psychological claim in addition? As I said, it is unclear.

Burge approaches Kaplan from another direction. He is convinced that the best way to characterize de re beliefs is by talking about what is going on inside the head when someone has a de re belief. Burge feels that we are not going to get an adequate understanding of de re belief by analyzing belief sentences, as philosophers tended to assume in the 1960's. Hence, he provides epistemic characterizations of de re and de dicto beliefs. Coming from this direction, Burge reads Kaplan's proposal from his psychological point of view. As a result, Burge understands the reduction thesis as a psychological thesis. For Burge, if the reduction thesis were true, all de re beliefs would be epistemically characterizable in the same way that de dicto beliefs are epistemically characterizable. And such a thesis seems obviously false given Burge's epistemic characterizations of de re and de dicto beliefs. How can a belief with nonconceptual elements be reduced to a fully
conceptualized belief?

My point is this. While Kaplan is still clear, his reductionist claim is a linguistic claim, and says that de re beliefs can be described by belief sentences using the two-place de dicto belief predicate. Burge neither mentions nor argues against that claim. For Burge, the reduction thesis is a psychological claim which says that de re beliefs can be epistemically characterized in the same way as de dicto beliefs. Since it is this psychological version which operates in Burge's argument, Kaplan does not need to give up the weak interpretation of the representation relation because of Burge's claim that the weak interpretation implies giving up some particular psychological version of the reduction thesis.

Burge might reply claiming that Kaplan is committed to this psychological reduction thesis. However, I think it is very unclear whether Kaplan is so committed given that he confusely slides from his claim about describing de re beliefs with de dicto belief sentences to characterizing what happens inside the head when someone has a de re belief.

Even if Kaplan intended to assert some version of the psychological reduction thesis, Burge's argument against the weak interpretation of the representation relation fails. His argument fails because he gives a false epistemic characterization of de re and de dicto beliefs,
that is, it fails because premises (a) and (b) are false.

In fact, we have already proven that (a) and (b) are false. In Section 2.3, we evaluated Burge's version of the content hypothesis, which said that a belief is de re if and only if its mode of presentation is context relative. Having a context relative mode of presentation is not sufficient for the belief to be de re because, for example, my belief that the current shortest spy is a spy, which I believe because of its triviality, has a context relative mode of presentation and is a de dicto belief, not a de re belief. Further, having a context relative mode of presentation is not necessary for a belief to be de re because it is perfectly possible to be acquainted with an object such that you can identify that object only in a context independent way, and hence, it is possible for a belief which represents in a context independent way to be a de re belief. Therefore, some de dicto beliefs have nonconceptual elements, and some de re beliefs are fully conceptualized.

I conclude that Burge's argument fails because he mischaracterizes de re and de dicto beliefs in his argument. Therefore, we need not give up the weak interpretation, the interpretation Kaplan gave, of the representation relation in (5). And since all that Burge has shown is that the psychological reduction thesis is false when de re beliefs are characterized as partially nonconceptual and de dicto beliefs are characterized as fully conceptualized,
Kaplan is free to hold some other version of the psychological reduction thesis.

This last point is important for us because I shall argue in Chapter 3 for what might be called a psychological reduction thesis insofar as I shall assert that there is only one kind of internal belief state. However, I shall not argue for an extreme reductionist thesis insofar as I shall assert that there is a difference between de re and de dicto belief, relativized to context.

Even though Burge's criticism of Kaplan's proposal fails, the proposal needs improvements because of the ambiguity in the range of $\alpha$. As I said, Kaplan is unclear between analyzing de re beliefs in terms of belief sentences and analyzing de re beliefs in terms of internal states and other conditions. Most philosophers in the 1960's tried to understand de re belief by analyzing belief sentences. From the 1970's to the present, an increasing number of philosophers have come to believe that an adequate understanding of de re belief will come only by looking at what goes on inside the head when someone has a de re belief. I suspect that Kaplan started writing "Quantifying In" intending to analyze de re belief in terms of belief sentences, but began to realize that the linguistic approach was inadequate. "Quantifying In" is a seminal paper because it marks within itself the
transition from linguistic analyses of de re belief to psychological analyses.

I agree that the best way to define de re belief is in terms of internal states. What we need, then, is a causal hypothesis which does not confuse linguistic and psychological analyses of de re belief, and which analyzes de re belief in terms of what goes on in the head and other conditions. We shall discuss such an improved causal hypothesis in the next section.

2.5 THE ACQUAINTANCE HYPOTHESIS:
   BEEBE'S CAUSAL VERSION

Michael Beebe has recently proposed a causal hypothesis to explain the specificity of de re beliefs.

Epistemic considerations argue for a special connection between believer and object in referential (i.e., de re) belief, a connection which is to be sufficient to ensure it is some particular object which is the object of the belief; which connection means to ensure that the belief remains invariant in its object under a suitable range of counterfactual assumptions, and to register that it was that particular object that was in part responsible for the believer's believing as he does, and not some other similar object nor purely general considerations. Causal connections are the only thing that can do this for ordinary beliefs about ordinary objects. 27

Beebe's hypothesis states that

a belief state \( m \) is specifically about an individual \( a \) if and only if \( m \) and \( a \) are causally connected.

This preliminary statement of Beebe's hypothesis,
however, needs to be modified. Beebe's account requires more than a mere causal connection between \( m \) and \( a \); it requires more than that \( S \) has experienced \( a \). He discusses a problem which "arises because we can, at least to a limited extent, contrast the object a belief traces to with the object the believer takes his belief to have."\(^{28}\) The problem is that the object a believer experienced may not be the object represented by a belief state which the believer has on the basis of that experience, even though the believer believes that the object he experienced and the object his belief is about are the same. Beebe does not give examples, but I think it would be helpful to give some.

Suppose that I am in downtown Houston during rush hour. I see in the distance, although just for a second, someone who looks to me like my friend Bill. Based on this quick glance, I come to believe that Bill is downtown. My belief state, thus, represents Bill. Suppose that the person I saw was not Bill. Does that mean that my belief does not in fact represent Bill? No. My belief represents Bill because I believe, albeit falsely, that the person I saw was Bill. If I were to run into Bill later, I might say, "I saw you downtown this afternoon." This statement would be inappropriate unless I believe that I saw Bill. So, we have a case in which the object a believer experienced is not the object of a belief based on that
experience, and in which the believer believes that the object he experienced and the object his belief is about are the same.

Another example. Suppose Doris overhears someone say, "Lauren is getting married." Doris is in a rush, and cannot stop to talk. The speaker was referring to Lauren Pate. Now, Doris has never met or heard of Lauren Pate, but she does have a friend, Lauren X, who has been living with someone. Doris mistakenly believes that the speaker was referring to Lauren X. In this case, the person Doris indirectly experienced was Lauren Pate since she is the person the speaker was referring to. However, Doris's belief is not about Lauren Pate, but Lauren X. Further, Doris believes that the person the speaker was referring to and the person her belief is about are the same. So, here's another case which illustrates Beebe's problem.

To account for these cases, Beebe uses the notions of a belief and memory cluster and a causal trace. "A cluster contains all the beliefs and memories which the believer takes to be about some one object." Note that a cluster is not defined as all those beliefs and memories which represent the same object for the agent. A cluster is all those beliefs and memories which the agent believes to represent the same object.

"The causal history of a belief, in the sense of its track through time, is its trace, and traces may contain
beliefs, memories, memory traces, and perceptual experiences--and I think that's all.30 What makes one causal ancestor of a belief rather than another the object the belief traces to? Beebe's answer is that, where x is one of a belief's causal ancestors, the belief traces to x if the belief traces to an experience that x has some property. "In the case of first-hand experience, the causal connection arises because perceptual experiences involve a causal connection between the subject and the object of the experience . . . . When one's belief is second-hand, the belief trace may touch many believers each of whom contributes a belief state or memory state of some duration to the chain. The trace ends finally in someone's experiences of the object of belief."31

Beebe takes as a primitive 'S experiences that x has P'. He thereby sidesteps a difficult issue in causal analyses of perception, viz., since a perceptual experience involves a causal sequence of many events, by virtue of what is one of them the object of the experience. Why is my clock the object of my experience instead of the light reflected off the clock reaching my eye, my retinal image, or the nerve impulses in the optic nerve? By taking 'S experiences that x has P' as undefined, Beebe takes for granted that the experience is about x and not about some other element in the causal sequence; consequently, the belief is said to trace back to x and
not some other causal ancestor. I think Beebe is justified in taking 'S experiences that x has P' as primitive. An adequate discussion of the issue would be very long, and take everyone's attention away from belief.

Beebe uses the notions of a cluster and a causal trace in the following way. There are three types of cluster: a sound cluster, an ambiguous cluster with a sound core, and a hopelessly ambiguous cluster.

In a sound cluster, each belief and memory traces to the same object. This object is the sound cluster's object.

In some clusters, not every belief and memory trace to the same object. "An ambiguous cluster has a sound core if a sufficient number of the component beliefs and memories, or a sufficient number of the more important ones, all trace to the same object. Decisions that clusters have sound cores are purpose-relative, for which beliefs in a cluster are the important ones, and what is a sufficient number of them, depends on one's purposes."\(^{32}\) The object the beliefs and memories in the sound core trace to is the object of the ambiguous cluster. All beliefs and memories of an ambiguous cluster with a sound core, even the deviant ones, have as their object the object of the cluster. Referring back to the cases above, this explains why Bill is the object my belief is about even though my belief traced to a total stranger, and it
explains why Lauren X is the object Doris's belief is about even though her belief traces to Lauren Pate.

Finally, if a cluster is neither sound nor ambiguous with a sound core, it is hopelessly ambiguous, and has no object.

Summarizing the response to those cases in which the object a belief traces to is not the object the belief is about, Beebe wants to amend his hypothesis so that it now states

belief state \( m \) is specifically about an individual \( a \) if and only if

(a) \( m \) is a member of a belief and memory cluster \( K \),

(b) \( a \) is the object of cluster \( K \).

One more thing before we are finished characterizing Beebe's account. According to Beebe, "there are two aspects to a belief's internal object-individuating features, namely, the way the beliefs are clustered, and their descriptive content." These two aspects can conflict. "A conflict can be generated by contrasting the object traced to with the apparent object as judged on descriptive grounds." 33 Beebe briefly mentions one case. "Those beliefs of ours we take to be about Homer, for instance, could not be found to be, really, about some Greek courtesan's lap dog." 34 How much information is required? Beebe says, "Probably the requirements are quite flexible and purpose relative." 35 As for our beliefs about Homer: "it seems clear that any object of our
Homer-beliefs must somehow be associated with The Iliad and The Odyssey. I suspect that for historical personages we want the object of belief, as determined by the causal trace, to fit the general place in history the cluster gives it.36

Perhaps a better illustration of the conflict between causal ancestor and descriptive content is the case of St. Nicholas and Santa Claus. It can plausibly be said that a child's belief in Santa Claus causally traces to St. Nicholas, a fourth century bishop of Myra. However, the content of the child's beliefs about Santa Claus has little, if anything, to do with St. Nicholas. The child's beliefs are about a man in a red suit who lives at the North Pole and who delivers presents every Christmas Eve. The child's beliefs are not about a fourth century bishop. So, here is a case in which the person a belief traces to is not the object of the belief because the descriptive content of the belief, and of the rest of the cluster it belongs to, describes someone excessively different from the causal ancestor.

While Beebe requires some qualifying information, he does not insist upon identifying information. "We certainly don't want to re-introduce the often unmeetable demand for identifying knowledge as constitutive of about-ness for beliefs--in general we don't want anything very demanding."37
Our final statement of Beebe's causal hypothesis is this:

belief state $m$ is specifically about $a$ if and only if
(a) $m$ is a member of a belief and memory cluster $K$,
(b) $a$ is the object of cluster $K$,
(c) $K$ contains a sufficient amount of information about $a$, exactly how much being determined by the context.

I have several criticisms and comments on this hypothesis.

First, (a) is not necessary for having a de re belief. Beebe does not ask whether there are beliefs which are not components of clusters. I suspect that Beebe believes that beliefs always come in clusters. However, Beebe should allow for beliefs which are not components of clusters because there are cases in which an agent has a belief based on an occurrent perceptual act without having an additional meta-belief that some of his other beliefs and memories are about the object currently being perceived. For example, we attribute perceptual beliefs to new born infants without attributing to them higher order beliefs about their other beliefs and memories. New born infants are not sufficiently well developed mentally to have such complex beliefs. So, Beebe should allow for beliefs which are not components of clusters. This point is important; since the new born infant's perceptual beliefs are de re, Beebe should not make being a component
in a belief and memory cluster necessary for a belief state to be de re.

My second objection is directed at (b). I want to argue that an ambiguous cluster can have more than one object; consequently, a need only be an object of cluster K.

Beebe claims that a cluster has either one object or no object. A cluster has one object if and only if the cluster is either sound or, if ambiguous, has a sound core. If a cluster is ambiguous without a sound core, "hopelessly" ambiguous as Beebe says, then the cluster has no object. This characterization suggests that clusters fall into three types, which we might represent with circles.

In a sound cluster, all the components trace to the same object. B is ambiguous, but has a sound core; the object of cluster B is the object the sound core traces to. The sound core, represented by the larger area in B, dominates the deviant beliefs, represented by the smaller area in B. C is hopelessly ambiguous, and contains many subsets of beliefs, represented by different areas in C, each of
which traces to a different object.

My objection lies with Beebe's suggestion that clusters fall into these three patterns. In particular, I object to Beebe's treatment of ambiguous clusters. Beebe considers only the extremes: ambiguous with a single dominating sound core, and ambiguous with components tracing to many different objects. I want to argue that there is a pattern between these two extremes. For example, we might have an ambiguous cluster $K$ which has two sound cores, viz., when $K$ has components which trace to two different objects, and $K$ contains enough information to identify each of the objects the components of $K$ trace to. Such a cluster develops, for instance, when someone meets two people face to face, but believes he has only met one.

Suppose I am on Galveston Beach on Saturday. There I strike up a conversation with a woman who introduces herself as Colleen. We talk about many things, but not at all about our families. After half an hour, I leave. On Sunday I return again to Galveston Beach. While taking a walk down the beach, I see someone whom I take to be the same Colleen that I met the day before. Again we talk for awhile, and afterwards, I continue my stroll down the strand. Unsuspected by me, the woman I met on the beach on Sunday was not Colleen, but her identical twin sister Mary Pat, who decided to play a trick on me and pretend to
be her sister. Because I believe that I met the same woman on both Saturday and Sunday, all the beliefs and memories I acquired as a result of the two meetings are grouped into the same cluster, a cluster being all those beliefs and memories one takes to be about one object. Let us call this cluster 'cluster CMP'.

Let us trace the development of cluster CMP over the weekend. From my meeting with Colleen up to my meeting on Sunday with Mary Pat, cluster CMP is sound, and has Colleen as its object. After seeing Mary Pat, CMP becomes ambiguous. During my meeting with Mary Pat, CMP is ambiguous with a sound core which traces to Mary Pat. We want to say this on the grounds that a significant number of the more important components of CMP trace to Mary Pat, where during the meeting some components are more important than others because they are based on current perceptions. We do not want to say that I had no beliefs about Mary Pat while I was with her. On Sunday night, cluster CMP is still ambiguous, but it no longer seems to have a single sound core. We can no longer say that CMP has a sound core tracing to Mary Pat because we can no longer say that the components which trace to Mary Pat are more important since they are no longer based on current perceptions. Indeed, it seems the components which trace to Colleen and the components which trace to Mary Pat reach an equilibrium with no group dominating or more important than the
other. We can represent cluster CMP at this state with

\[ \text{T} \quad \text{TRACES TO COLLEEN} \quad \text{T} \quad \text{TRACES TO MARY PAT} \]

My objection against Beebe's characterization of ambiguous clusters is that cluster CMP does not fit into the two patterns he gives for ambiguous clusters. Cluster CMP does not fit the pattern represented by circle B because no subset of components dominates the remaining components. Cluster CMP does not have one sound core and a few deviant components. Cluster CMP does not fit the pattern represented by circle C because CMP is not hopelessly ambiguous; roughly half of cluster CMP traces to Colleen, while the other half traces to Mary Pat.

How should we analyze cluster CMP as it exists on Sunday night? I suggest that we allow some ambiguous clusters to have two or more sound cores. Let us say that a proper subset of components of an ambiguous cluster K is a sound core of K if and only if all the components of the proper subset trace to the same object x, and the components of the proper subset contain at least some qualifying information about x. All we need recognize here is that a proper subset of components may contain a sufficient amount of information even if the believer is taking two people to be one. For example, even though I am taking Mary Pat to be Colleen, cluster CMP contains
identifying information about both Colleen and Mary Pat; I am able to identify both on the basis of my personal meetings with both.

Let us say that if $K$ is an ambiguous cluster with $n$ sound cores, then $K$ has 'n' objects, the objects being the ones the sound core traces to. If an ambiguous cluster has more than one sound core, then it has more than one object. Since cluster CMP has two sound cores, cluster CMP has two objects. As we saw above, the object a belief is about is the object of the cluster the belief is a member of. So, if an ambiguous cluster has two objects, then the beliefs in that cluster are about two objects even though, of course, the believer believes there is only one. So, if, on the basis of my two meetings on Saturday and Sunday with what I took to be the same person, I believe that the woman I met twice is friendly, my belief is about both Colleen and Mary Pat, even though I believe my belief is about only one person named 'Colleen'.

All this calls for a change in (b) to 'a is an object of cluster K', where 'an' replaces 'the'.

My third objection is that some of the key phrases in the hypothesis and supporting analysis are not analyzed; for example, what are first and second hand experiences? What does it mean to say that a belief state traces to an experience of an object? What does it mean to have a sufficient amount of information about an object? The
answer to these questions would provide the details of the causal hypothesis, and these details are necessary to show that the causal hypothesis really works, rather than just looks good.

Finally, Beebe has no general theory on belief which he can plug his ideas into. Consequently, his causal hypothesis on de re belief is incomplete insofar as it takes 'belief' as undefined. Furthermore, it remains unclear how a causal connection fits into, if at all, the conditions under which someone has a belief. Beebe needs a theory of belief which his causal hypothesis on the specificity of de re belief can supplement.

My conclusion is that while the causal hypothesis is very promising, a lot more work than Beebe has done needs to be done. We need a causal hypothesis which does not make being a component in a belief and memory cluster a necessary condition for a belief to be de re. We need an hypothesis which allows for a de re belief to be about two objects even though the believer believes there is only one object his belief is about. We need to complete the details of the causal hypothesis. Finally, we need a general theory of belief which will serve as the starting point for a theory of de re belief.

In the next chapter, I shall present a theory of belief and an acquaintance/causal hypothesis which will satisfy these needs.
FOOTNOTES


3Quine, p. 102.


6Quine, p. 101.


15 David Kaplan, "Quantifying In," pp. 131-139.


17 Kaplan, p. 132.

18 Kaplan, p. 132.

19 Kaplan, p. 135.

20 Kaplan, p. 136.

21 Kaplan, p. 134.


23 Burge, p. 351.

24 Burge, p. 345.


26 Cf. David Kaplan, "Quantifying In," p. 117.

27 Michael Beebe, "How Beliefs Find Their Objects," p. 600.

28 Beebe, p. 604.

29 Beebe, p. 605.
30 Beebe, p. 603.

31 Beebe, pp. 603-04.

32 Beebe, p. 605.

33 Beebe, p. 607.

34 Beebe, p. 607.

35 Beebe, p. 608.

36 Beebe, p. 607.

37 Beebe, p. 607.
CHAPTER 3

BELIEF AND DE RE BELIEF

3.1 INTRODUCTION

In this chapter, I want to present a general theory of belief, give the conditions under which someone has a de re belief, and based on those conditions, argue that there is only one kind of belief state.

We ended Chapter 1 in need of a general theory of belief. We need a theory which has at least three characteristics: it has to allow for beliefs which do not represent anything, it has to define belief in part in terms of the belief's content, i.e., its mode of presentation, and it has to define belief in part in terms of what the belief represents, if anything. The theory I shall propose in Section 3.2 has these three characteristics. It is a theory adequate to distinguish belief from the other attitudes, and to distinguish among all individual beliefs.

My theory is a combination of the relational and content theories I examined in Chapter 1. These two theories strike me as obviously complementary, and their combination solves any objection raised against the two
theories when they are separate.

We ended Chapter 2 discussing causal versions of the acquaintance hypothesis. The acquaintance hypothesis says that we have de re beliefs about those things we are acquainted with. The relationship of acquaintance was formulated as a causal relation by Kaplan and Beebe. Both Kaplan's and Beebe's proposals were inadequate. We ended Chapter 2 needing a causal version of the acquaintance hypothesis which defined de re belief in terms of internal states plus other conditions, was built upon a general theory of belief, and which had the details of the hypothesis worked out.

In Section 3.3, I shall give the conditions under which someone has a de re belief. This definition is built upon the definition of belief from Section 3.2. Following the definition of belief, de re belief is defined in terms of internal belief states plus other conditions. Finally, I spend a fair amount of time working out the details of my hypothesis. My theory of de re belief is the most elaborate and detailed causal version of the acquaintance hypothesis that I know of.

In Section 3.4, I shall argue that there is only one kind of internal belief state. The argument comes from the conditions under which someone has a de re belief, according to which the difference between de re and de dicto belief is extrinsic to the internal belief state,
and is context-relative. My argument differs from other arguments for the same conclusion in that I argue from the conditions under which someone has a de re belief rather than from the characteristics of de re belief sentences or the denial that there are two kinds of belief because there are two kinds of belief report.

3.2 A NEW THEORY OF BELIEF

My proposal for distinguishing belief from the other attitudes and for distinguishing among individual beliefs is based on the following analysis of what it is to have a belief.

(1) S has a belief at time t in place p if and only if S has an internal state m such that at t in p,
   (a) m has a content C,
   (b) m plays role B for S,
   and sometimes
   (c) (\exists x_1)(\exists x_2) \ldots (\exists x_n)(\exists F_1^n)(\exists F_2^n) \ldots (\exists F_m^n)
       (m represents x_1, x_2, \ldots, x_n as having
        F_1^n, F_2^n, \ldots, F_m^n for S).

(1) has the three characteristics that we learned an adequate theory of belief should have. By saying 'and sometimes (c)', (1) allows for beliefs which do not represent any objects. We learned that an adequate theory of belief should make reference to the belief's content; (1) defines 'belief' in part in terms of a content. Finally, in order to distinguish among all beliefs, an adequate theory of belief must make reference to what the belief
represents, if anything; (1c) does this. So, (1) has
the three characteristics of an adequate theory of belief.

Let us spell out in more detail some of the terms
used in (1). Unfortunately, I cannot be as precise as I
wish since the terms are notoriously difficult to define.

By 'internal state' I mean a mental state. I leave
it open whether mental states are physical states. Also,
since some mental states are unconscious, some internal
states are unconscious.

By 'the content of an internal state' I mean that
quality of the internal state which constitutes the
state's mode of presentation. It is that quality which
constitutes the way the state represents what it repre-
sents.

Contents are things we express with linguistically-
oriented entities, e.g., natural language sentences,
propositions, and the like. We should not make the mis-
take of identifying the linguistic expression and its
logical structure with the content and structure of the
internal state. To express an internal state's content
is not to be the internal state's content.

Why do we think internal states have contents?
First, contents are ascribed to internal states to explain
behavior. To explain someone's behavior, we must often
talk about how he views the situation, what his personal
perspective is, and what his point of view is. We must
often talk about how he sees things and not just about what he sees. It is the job of the internal state's content to give this "how." Second, contents are ascribed to internal states in order to characterize those states which do not represent any actual object, e.g., to characterize states about fictional creatures.

What is role B? What role do belief states have which distinguishes belief states from all other kinds of states? This is an extremely difficult question to answer, and I do not pretend to have much of one. I can do nothing but report the general consensus. One characteristic of belief states is that they are modified and caused by other states and events. For example, new perceptions and changes in other beliefs can lead a person to modify a belief of acquire new ones. Also, neurotic fears and obsessive desires can modify one's beliefs or lead to new ones. A second characteristic of belief states is their role in the production of behavior. Their basic function here is to guide behavior and to play a role in practical reasoning, decision making, and problem solving. This role is analogous to that of premisses in a practical syllogism. A third characteristic of belief states is that they have representational powers. Belief states are internal representations, and typically, but not always, represent actual objects as having actual properties. A final characteristic is that beliefs are
true or false, i.e., they have contents expressible by declarative sentences which are either true or false. Beliefs are true or false because the agent commits himself to the accuracy of his belief states; the agent takes his belief states to represent the world as it really is, and not merely how he would like it to be.

What does 'm represents $x_1, x_2, \ldots, x_n$ has having $F_1^n, F_2^n, \ldots, F_m^n$ for S' mean? The notion of representation is extremely difficult to clarify and explicate. Let it suffice to say that some internal states are representations because they symbolize or stand for something other than the internal state itself.

I say '$x_1, x_2, \ldots, x_n$ and '$F_1^n, F_2^n, \ldots, F_m^n$' to account for beliefs which represent more than one object and property. It is not necessary that we have the same number of individual variables and predicate letters. For example, my belief that Barney is a smart cat represents one cat and two properties, being smart and being a cat, and to describe this, (lc) would exhibit one term and two one-place predicates. Similarly, a belief might represent two objects as standing in some relation, in which case (lc) would exhibit two terms and a two-place predicate.

I say 'represents $x$ as having $F$' to allow for the possibility that $x$ does not in fact have $F$. I intend to distinguish 'representing $x$ as having $F$' from
'representing x's being F'.

I add 'at time t in place p' to allow for cases in which the content of m does not solely determine what m represents, e.g., when the content contains temporal indices (earlier, now, later) or spatial indices (here, there, this, that). In other words, the phrase allows for cases in which what m represents is determined in part by the context in which S is in the internal state m.

On this new proposal, belief states are distinguished from other kinds of mental states by the unique role or function of belief states. Individual belief states are distinguished either by what they represent or by their content, or by both. Some beliefs can be distinguished only by their contents, e.g., when I have two beliefs, each ascribing the same property to the same individual, which I mistakenly take to be about two distinct people. Other beliefs can be distinguished only by what they represent, e.g., the belief Tim expresses when he says, "I am making a mess," and the belief Tom expresses when he says, "I am making a mess."¹ The new proposal is adequate to distinguish beliefs from the other attitudes, and to classify individual beliefs.

Two people have the same belief if their belief states have the same content, and if they represent anything, their belief states represent the same objects as having the same properties. With this explanation, I do
not intend to deny that there are no other derived uses of 'having the same belief'. The man on the street sometimes uses this phrase to mean 'belief states with the same content' and to mean 'belief states which represent the same object as having the same property'. On my proposal, these are derived uses and not entirely adequate to explain what it is for different individuals to have the same belief.

A person has the same belief at different times if the person is in a belief state with the same content at different times, and at each time, if the belief states represent anything, they represent the same objects as having the same properties. Again, I do not deny there are derived uses of the phrase 'has the same belief at different times' where the phrase means having the same content or representing the same thing, if anything. I just deny the adequacy of each of these two derived uses to explain every case of having the same belief at different times.

Different people can believe, hope, desire, know, etc., the same thing if their internal states have the same content, and if they represent anything, they all represent the same objects as having the same properties. Again, there are derived uses in which people can believe, desire, and hope the same thing if their internal states have the same content, or represent the same objects as
having the same properties. I only deny the adequacy of each of the two derived uses to explain having different attitudes about the same thing in every case.

I conclude that the new proposal is adequate to explain the interrelated phenomena involving identity. This result, together with the conclusion that the new proposal is adequate to distinguish belief from the other attitudes and among individual beliefs, leads me to offer (1) as a new theory of belief.

3.3 A NEW THEORY OF DE RE BELIEF

I now want to give the conditions under which someone has a de re belief. I shall propose a new causal version of the acquaintance hypothesis. The acquaintance hypothesis says that someone has a de re belief about those objects he is acquainted with. The acquaintance hypothesis is formulated as a causal connection of an appropriate type between the belief state and the objects it represents. The starting point for my new theory is the theory of belief proposed in the previous section as expressed by (1).

In Chapter 2, Section 1, I argued that there are two requirements for a belief to be de re; it must be about existing objects, and the agent must have those objects specifically in mind. The existence requirement
is very easy to express; we need only to erase 'and
sometimes' between (1b) and (1c) to guarantee that S's
belief represents existing objects. To satisfy the
specificity requirement, we need to add a fourth con-
dition stating that m and the objects m represents are
causally connected in an appropriate way, where the
causal connection is the means by which S is acquainted
with the objects.

A preliminary statement of my causal version of the
acquaintance hypothesis is this.

(2) S has a de re belief about a₁, a₂, ..., aₙ
at time t in place p if and only if S has an
internal state m such that at t in p
(a) m has a content C,
(b) m plays role B for S,
(c) (∃x₁)(∃x₂)...(∃xₙ)(∃F₁)(∃F₂)...(∃Fₙ)
   (m represents x₁, x₂, ..., xₙ as having
   F₁, F₂, ..., Fₙ for S & x₁=a₁, x₂=a₂,
   ..., xₙ=aₙ),
& (d) m is causally connected in an appropriate
way to a₁, a₂, ..., aₙ.

(2c) satisfies the existence requirement, and (2d) satis-
fies the specificity requirement.

I now want to spell out the conditions under which
m is causally connected in an appropriate way to a₁, a₂,
..., aₙ. For ease in presentation, I shall assume for
the moment that we are considering a de re belief which
attributes a property to a single object a.

What does it mean to say that we are acquainted with
something? One dictionary defines 'acquainted' as 'having personal knowledge' and 'having been brought into social contact'. So, when we are acquainted with someone or something, two things are true; we have some kind of personal contact with the person or object, and we know something about the person or object.

The definition of 'acquainted' provides us with an outline for analyzing (2d). Belief state m and a are causally connected in an appropriate way if and only if S is experiencing or has experienced a, and S has a sufficient amount of information about a. So, two things have to hold for the specificity requirement to be satisfied; S has to experience a, and S has to know something about a. As a preliminary statement, let us say that m and a are causally connected in an appropriate way if and only if

(3) (a) (i) S is experiencing a at t,

or

(ii) S experienced a at t', t' < t, and this experience is retrievable from memory by S at t,

& (b) S has a sufficient amount of information about a.

I shall take 'experience of a' as primitive insofar as I shall not discuss why a rather than some other causal antecedent is the object of the experience, and a fortiori, why m is connected to a in an appropriate way rather than some other causal antecedent. A discussion
of this issue would take us too far from the issue at hand. It does not really matter for our purpose how we pick out the right causal antecedent as the object of the experience.

In (3a-ii), I add that S's past experience of a is retrievable from memory by S at t because if S has forgotten his experience of a, and cannot retrieve the experience from memory, then the causal connection between m and a is broken.

I now want to analyze 'experience' in (3a). There are two ways to experience an object, directly or indirectly. By 'direct' and 'indirect' I do not mean unmediated or mediated by internal representations. I have in mind something much more ordinary. Intuitively, to directly experience something is to experience it face to face, and to indirectly experience something is to experience it through some kind of external representation of it.

The intuition behind distinguishing direct and indirect experience is that there are some cases in which, although we do not have direct experience of an individual, we nevertheless have a de re belief about it. For example, I have de re beliefs about Reagan and Lincoln even though I've never met either one. There is some kind of experience by means of which I have beliefs specifically about them, even though the experience is
not a direct experience. My analysis of indirect experience is intended to account for these cases.

Let us say that S is experiencing a at time t if and only if either (a) S is directly experiencing a at t, or (b) S is indirectly experiencing a at t.

S directly experiences a at t if and only if a is an object of an act of perception or introspection by S at t. I am using 'perception' and 'introspection' somewhat loosely. By 'perception' I mean that mode of awareness through which material objects are accessible. By 'introspection' I mean that mode of awareness through which the subjective contents of the mind are accessible. My purpose in this analysis of 'direct experience' is to list the ways we experience existing objects in their presence, be they physical or mental.

S can directly experience only those things which are actual at the moment of the direct experience. S cannot perceive or introspect an object which has gone out of existence or has not yet come into existence. I cannot perceive Julius Caesar and the first person born in the 21st century, and I cannot introspect items irretrievable from memory or ideas which I have not thought of yet.

We shall say that S indirectly experiences a at t if and only if there is an x such that x directly recorded (is directly recording) information about a, and there is a signal from x to S which carries at least some of the
recorded information about a, and S is receiving at least some of the transmitted information about a at t.

Some illustrations. I have an indirect experience of Ronald Reagan when I see him on television. I have an indirect experience of Socrates when I read The Apology. I have an indirect experience of my wife's relatives when she tells me about them before I meet them in person. I have an indirect experience of the spy I am about to catch because he has left so many traces. I have an indirect experience of Bernard Shaw when I read Pygmalion.

By 'information about a' I mean 'something which allows us to recognize a as having or lacking one or more properties'.

By 'directly records information' I have in mind three broad types of examples. Information may be directly recorded by a person who directly experiences a, and stores this information in his memory. This person can then report this information by writing or speaking about this experience. Secondly, information may be directly recorded by a mechanical device, e.g., still or motion camera, a television camera, a tape recorder, a microphone, etc. The recorded information can then be played back in the appropriate way, e.g., by developing the film or playing the tape. Thirdly, information may be directly recorded by the environment, as when a murderer leaves clues and traces at the murder scene.
An information carrying signal may be transmitted through an oral or written tradition. In the case of mechanical devices, information may be transmitted through, for example, photographs, films, records, tapes, broadcasts to radio or television receivers, etc. Also, information may be carried by other effects on the environment, e.g., fingerprints left by the murderer.

Someone may receive information about a by reading or hearing the story of a, by seeing or hearing a visual or audible record of a, or by finding and interpreting a clue about a.

I twice use 'at least some of the information' in order to allow for partial interference of the signal and distortion by the receiver.

Does this analysis of direct and indirect experience rule out any objects as possible objects of de re belief? As I said above, we do not directly experience past and future objects. Do we indirectly experience them? We indirectly experience past objects because of the marks they leave. We have books written by Julius Caesar and photographs of Abraham Lincoln. Therefore, we can have de re beliefs about past objects.

However, we do not indirectly experience future objects. There is nothing which directly records information about future objects. No one directly experiences future objects. No mechanical device can directly record
information about future objects. Nor does the environment record information about future objects. Since we neither directly nor indirectly experience future objects, we do not have de re beliefs about future objects.

Further, we neither directly nor indirectly experience abstract objects, such as numbers. Abstract objects are not perceivable and introspectable, and there is nothing which directly records information about them; therefore, abstract objects are not possible objects of de re belief.

It is very tempting to say that we have de re beliefs about numbers because we are very familiar with numbers. We know a lot about them. But only one of the two conditions in the specificity requirement is satisfied. We have a lot of information about numbers, but we do not experience them; therefore, we do not have de re beliefs about numbers.

When joining (3) to (2a)-(2c), we have to make sure that (3) fits; in particular, not only must S's experience be of the same object that belief state m represents, there must be something which connects m's representing a and S's experience's representing a. If there is no connection, the causal connection between m and the object it represents will be broken.
As an illustration, consider Sam who believes that the shortest spy is a spy because of its triviality. His belief represents the shortest spy. Suppose that Sam has seen the shortest spy; the spy was working undercover as a clown in a circus that Sam once saw, and Sam remembers seeing the short clown. Here is a case in which an agent has experienced a person, has a belief about that person, but the belief is not de re because the agent has not connected the belief and the experience; he does not take them to be about the same person. So, we need to add something to (3a) to guarantee that there is some kind of connection between m's representing a and S's experience's representing a.

I suggest that (3a) be changed to read as follows:

(3a) (i) S is experiencing a at t, and either S's experience of a at t causes m to represent a, or S believes that m and his current experience represent the same object,

or

(ii) S experienced a at t', t'<t, this experience is retrievable from memory by S at t, and S believes that m and his experience represent the same object.

In (3a-i), I write 'S's experience of a at t causes m to represent a' to account for the de re perceptual beliefs of infants and animals who are not sufficiently well developed cognitively to have a meta-belief connecting belief state m and the experience. I did not write
'S's experience of a at t causes m to represent a as having F' to allow for m to represent a as having some property which is not being experienced; perhaps a newborn baby or an animal may believe some things about an object it is experiencing based on innate instincts.

I add 'S believes that m and his current experience represent the same object' to (3a-i) because once someone has the ability to have such a meta-belief, he typically connects his belief and experience with a meta-belief. Such a meta-belief is usually in the preconsciousness, and one can have the meta-belief even if the experience of a is causing m to represent a. Second, the addition accounts for those de re beliefs about an object currently being perceived where the belief is not based upon the current experience, but upon other considerations. For example, when I believe of a person that I am now seeing that as an American he is entitled to certain legal rights, or that he was born in Connecticut.

The only way to make the right kind of connection between what a current belief represents and what a past experience represents is to require that the believer believes that they represent the same object. It is not enough if S only remembers the past experience, even if at the time of the experience the experience's representing a caused (the still-held belief state) m to represent a; S may have since acquired the mistaken belief that his
past experience of a is really not of a, but of some other object.

By requiring in some cases that S believes that m and his experience represent the same object, I am not re-introducing Beebe's notion of a belief and memory cluster, a cluster being all the beliefs and memories an agent takes to represent the same object. I do not need to reintroduce clusters here (although I shall below) because my problem is different from Beebe's. Here I want to make sure that the belief state representing a and the experience of a are connected in S's head. Beebe introduced clusters to explain how a belief may represent a different object than the experienced object the belief traces to. This is not a problem for me because I am assuming that the belief and experience represent the same object. I do agree with Beebe that there are belief and memory clusters, and that what a belief represents depends on what the cluster the belief is a member of represents. My point is that given that the belief and experience represent the same object, we do not have to introduce clusters to guarantee that m's representing a is connected to the experience's representing a.

Let us now turn our attention to (3b). Under what conditions does S have a sufficient amount of information about a? There are two places this information might be contained; it might be in the content of m itself, or it
might be in the contents of the other beliefs $S$ has about $a$ and which $S$ believes to be about the same object that belief state $m$ represents. I suggest the following analysis. Let $K$ be a belief and memory cluster such that $a$ is an object of $K$. $S$ has a sufficient amount of information about $a$ if and only if

(4) (a) $m$ has a content expressible by a true, sufficiently informative statement, and belief state $m$ is justified at least in part by $S$'s experience of $a$,

or (b) $S$ has at least one internal state $m'$, such that $m'$, $m \in K$, such that

(i) $m'$ as a content expressible by a true, sufficiently informative statement,

(ii) $m'$ plays role $B$ for $S$,

(iii) $(\forall x)(\forall F)(m' \text{ represents } x \text{ as having } F \text{ for } S \& x=a)$,

&(iv) $m'$ is justified at least in part by $S$'s experience of $a$.

(4) gives $S$ the ability to specify or describe the object his belief is about in sufficient detail. Because of the informativeness of $S$'s beliefs, $S$ can give enough details about the object his belief is about.

In (4b) I re-introduce Beebe's notion of a belief and memory cluster in order to group all those beliefs which $S$ takes to be about $a$.

(4a) is included to account for the perceptual de re beliefs of infants and animals who are not sufficiently well developed cognitively to have meta-beliefs defining clusters.
Why does S's belief have to be sufficiently informative? It must have a sufficiently informative content so that we do not say that S can specify a even if all his beliefs have contents expressible by trivial or uninformative statements, e.g., 'the shortest spy is the shortest spy' or perhaps 'Saul Kripke is a male'. S must be able to describe the object his belief is about in sufficient detail, and not just be able to repeat the original description under which he picks out the object, and not just be able to say the obvious.

By requiring that S has an informative belief, I do not mean that its expression necessarily tells something new to either the audience or the believer. A belief is sufficiently informative if it gives S the ability to specify the object the belief represents. It does not matter if the way the believer specifies the object is familiar to others or himself.

S must have at least one true, informative, identifying or descriptive belief. Suppose that all of S's identifying and descriptive beliefs about a are false. S can specify a only if S can truly describe a in some detail. If S could not truly describe an object in any detail, then S would not be able to specify that object. But if all of S's identifying and descriptive beliefs are false, then S cannot truly describe a in any detail.
Therefore, if all of S's identifying and descriptive beliefs are false, then S cannot specify a. So, at least one of S's informative, identifying or descriptive beliefs must be true.

Do all of S's identifying or descriptive beliefs have to be true? If S has several sufficiently informative identifying and descriptive beliefs, it seems too stringent not to allow a false identifying or descriptive belief. For example, it is possible for me to have several false identifying and descriptive beliefs about some individual I know very well, and this would not jeopardize my ability to specify that individual. So, if I were to learn that the woman I take to be my biological mother is not in fact my biological mother, but someone who adopted me, I would still be able to specify my mother. Or even if we were to find out that Ronald Reagan is not the current President, perhaps because some legality in the inaugural process was overlooked, we would still be able to specify him because we often see him on T.V. The only restriction I believe we need to make is that the identifying and descriptive beliefs which play a significant role in how S conceives the individual the belief is about, or at least a sufficient number of them, must be true. (Without attempting a definition, a belief has a significant role in how S conceives an individual if S often uses that
belief to conceive the individual.) So, for example, if we were to learn that someone other than Homer is the author of *The Iliad* and *The Odyssey*, we would no longer be able to specify Homer, assuming he existed, because we typically conceive of Homer as the author of *The Iliad* and *The Odyssey*.

What justifies S's sufficiently informative belief? Because S has a de re belief about a only if S experiences a in some way, at least some of S's evidence for his identifying and descriptive beliefs is based on his experiences of a. How much of S's evidence?

It seems too stringent to say that all of S's evidence must be based on his experiences of a. Suppose I know someone very well, and have many true, sufficiently informative identifying and descriptive beliefs about him, but that I also have several true, sufficiently informative, identifying and descriptive beliefs about him based on experiences of some other person I mistakenly took to be my friend. In this case, some of the evidence for my true, sufficiently informative, identifying and descriptive beliefs is not based on experiences of the individual the beliefs are about; nevertheless, we would say that I can specify my friend even though the evidence for some of my beliefs is based on experiences of some other person. Given the number of true, sufficiently informative, identifying and descriptive beliefs I have
which are based on experiences of my friend, my mistake
is not serious.

On the other hand, it is too loose to allow a sign-
ificant portion of the evidence for S's identifying and
descriptive beliefs about a to be based on experiences of
some other object that S mistakenly took to be a. We
would not say that S can specify a if a lot of the details
S can give about a really come from experiences of some
different object. For example, suppose a medical student
John overhears someone say, "Lauren Pate plans to go into
psychiatry." John identifies Lauren Pate as a student
he has occasionally seen around the Medical Center, but
he has never met nor has anyone ever identified the
student he takes to be Lauren Pate as Lauren Pate.
Suppose that the medical student John takes to be Lauren
Pate is not in fact Lauren Pate. In this case, John
cannot specify Lauren Pate because the beliefs and images
he takes to be about Lauren Pate are not based on ex-
periences of Lauren Pate. So, a significant portion of
the evidence S has for his sufficiently informative
identifying and descriptive beliefs about a must be based
on his experiences of a.

When S's sufficiently informative belief is a
component of a cluster, does this belief have to be a
conscious mental state? No. Most of our beliefs about
an object are at the preconscious level. The content of
an informative identifying or descriptive belief can be expressed if need be, but typically, our thought process goes too quickly to allow our informative beliefs to reach the conscious level. Our sufficiently informative, identifying and descriptive beliefs are in the background as it were, and are brought forward only if there is some question regarding which object the belief is about.

I now want to examine some of the factors in determining whether a belief is sufficiently informative. I shall do this using examples. I want to show that there is no context independent standard for when a belief is sufficiently informative.

Consider a belief with a content expressible by 'Lauren Pate is Jeff Lehmann's wife'. This identifying belief has a non-trivial content, and represents the same person in two different ways. I now want to describe two contexts. In one context, this identifying belief is not sufficiently informative to give the believer a de re belief. In the other context, it is sufficiently informative.

Consider a medical student John. He overhears someone say, "Lauren Pate plans to go into psychiatry." He thereby indirectly experiences Lauren Pate. Since he believes what he hears, John acquires a belief with a content expressible by 'Lauren Pate plans to go into psychiatry'. John has never seen, met, or heard of
Lauren Pate before. John is interested in psychiatry, so he interrupts, and asks, "Who's Lauren Pate?" He is told, "Lauren Pate is Jeff Lehmann's wife." Now, John has never seen, met, or heard of me before. Nevertheless, believing what he hears, he comes to have a belief with a content expressible by 'Lauren Pate is Jeff Lehmann's wife'. In this context, John has a belief about Lauren Pate, and also has a non-trivial identifying belief about her. Does John have a sufficient amount of information about Lauren Pate? I think not. Even though his identifying belief is non-trivial, he cannot provide enough information about Lauren Pate using 'the wife of Jeff Lehmann' because he cannot describe me other than as Lauren Pate's husband.

Consider a philosophy student Joe. Joe and I were fellow students for awhile, but he does not know that I got married. He overhears someone say, "Lauren Pate plans to go into psychiatry." He thereby indirectly experiences Lauren Pate. Since he believes what he hears, Joe has a belief with a content expressible by 'Lauren Pate plans to go into psychiatry'. Joe has never met, seen, or heard of her before. Joe wonders who is being talked about, and asks, "Who's Lauren Pate?" He is told, "Lauren Pate is Jeff Lehmann's wife." Joe now comes to have a belief with a content expressible by 'Lauren Pate is Jeff Lehmann's wife'. In this context, Joe has a
belief about Lauren Pate, and has a non-trivial identifying belief about her. Does Joe have enough information about her? I think yes. Since Joe is very familiar with me, and she is identified as my wife, we would count Joe as having enough information about the object his belief is about.

So, I have described two different contexts. In one context, the belief that Lauren Pate is Jeff Lehmann's wife is not sufficiently informative to give the believer a de re belief about the object his belief is about. In the second context, the same belief gives a sufficient amount of information to give the believer a de re belief about Lauren Pate.

The same point can be made even if we consider only one believer. Consider the medical student John again. He believes that Lauren Pate plans to go into psychiatry, and believes that Lauren Pate is Jeff Lehmann's wife. He does not have any beliefs regarding Jeff Lehmann except that he is Lauren Pate's husband, and some others based on purely general considerations. So, suppose John asks, "Who's Jeff Lehmann?" I happen to be nearby, and John and I are introduced. We talk at length. I give him my biography, but I do not talk at all about Lauren Pate. In this case, John becomes acquainted with me, and like Joe, we now count John as having a sufficiently informative belief by virtue of being well acquainted with me,
and Lauren Pate's being identified as my wife. Here
John's belief goes from not being sufficiently informative
to being sufficiently informative; therefore, his belief
state with the content expressible by 'Lauren Pate plans
to go into psychiatry' goes from not being to being a de
tre belief state.

What are some other ways that John could come to have
a sufficiently informative belief about Lauren Pate? If
John met her face to face, if John saw a representation
of her, say, a photograph, or if Lauren were described at
length to him, then John would have a sufficient amount
of information about Lauren Pate.

As for the idea of being able to specify Lauren Pate
as that person bearing some special relation to a second
person, several things should be noted. First, simply
having a de re belief about the second person is not
sufficient. If John asked, "Who's Jeff Lehmann?" and were
shown a photograph of me, I do not think we would say that
John had enough information about Lauren Pate even though
he would acquire a de re belief about me. Not only must
John have a de re belief about me, he must be very
familiar with me. Second, not just any relation between
Lauren Pate and the second person is going to count.
Suppose that Paul is a good friend of John's, and that
Paul happened to sit next to Lauren Pate on the bus to
work that morning. John would not learn enough about
Lauren Pate by learning that Paul sat next to her on the bus that morning. The relations that are going to count must be intimate relations, such as those among immediate family members—grandparents, parents, siblings, spouses, and children. The more distant the relative, the more fuzzy things get. Close friendships might also count. I suspect that we are able to have enough information about a person by being acquainted with a close relative or friend because we tend to think of a person's immediate family or closest friends as an extension of that person.

The examples I have examined show us that there is no context independent way for determining whether a belief is sufficiently informative. The same belief may be sufficiently informative in some contexts, and not sufficiently informative in other contexts.

To conclude and summarize this section, I shall now restate the complete conditions under which someone has a de re belief, now generalizing to allow for de re beliefs directed at any number of objects and properties.

(A) S has a de re belief about a_1, a_2, \ldots, a_n at time t in place p if and only if S has an internal state m such that at t in p
   (1) m has a content C,
   (2) m plays role B for S,
   (3) (\exists x_1)(\exists x_2) \ldots (\exists x_n)(\exists F_1^n)(\exists F_2^n) \ldots (\exists F_m^n)
      (m represents x_1, x_2, \ldots, x_n as having F_1^n, F_2^n, \ldots, F_m^n for S & x_1=a_1, x_2=a_2, \ldots, x_n=a_n),
& (4) (a) (i) S is experiencing $a_1, a_2, \ldots, a_n$ at $t$, and either S's experience of $a_1, a_2, \ldots, a_n$ at $t$ caused $m$ to represent $a_1, a_2, \ldots, a_n$, or S believes that his belief state $m$ and his current experience represent the same objects.

or

(ii) S experienced $a_1, a_2, \ldots, a_n$ at $t'$, $t' < t$, this past experience is retrievable from memory by S at $t$, and S believes that his belief state $m$ and his past experience represent the same objects.

& (b) (i) $m$ has a content expressible by a true, sufficiently informative statement, and belief state $m$ is justified at least in part by S's experience of $a_1, a_2, \ldots, a_n$.

or

(ii) S has at least one internal state $m'$, $m'$, $m \in K$, such that

(1) $m'$ has a content expressible by a true, sufficiently informative statement,

(2) $m'$ plays role $B$ for S,

(3) $(\exists x_1)(\exists x_2) \ldots (\exists x_n)(\exists F_1^n)(\exists F_2^n) \ldots (\exists F_m^n)$ ($m'$ represents $x_1, x_2, \ldots, x_n$ as having $F_1^n, F_2^n, \ldots, F_m^n$ for S & $x_1 = a_1, x_2 = a_2, \ldots, x_n = a_n$),

& (4) $m'$ is justified at least in part by S's experience of $a_1, a_2, \ldots, a_n$,

where $K$ is a cluster with $a_1, a_2, \ldots, a_n$ as some of its objects.
3.4 DE RE AND DE DICTO BELIEF: TWO KINDS OR ONE?

I now want to argue that there is only one kind of internal belief state. My argument is that there is no intrinsic difference between de re and de dicto beliefs. My argument differs from other arguments for the same conclusion in that my conclusion follows from the conditions under which someone has a de re belief rather than from the characteristics of de re belief sentences or a denial that there are two kinds of belief because there are two kinds of belief report.

There are two requirements for a belief to be de re, the existence requirement and the specificity requirement. The specificity requirement has two parts—-that the agent has experienced the objects the belief represents, and that the agent has a sufficient amount of information about the objects his belief represents. Based on these two requirements, there are three ways a de re belief can differ from a de dicto belief. First, all de re beliefs represent an object while some de dicto beliefs do not. Second, all de re beliefs are about objects the believer has experienced while some de dicto beliefs represent objects the agent has never experienced. Third, all de re beliefs are about objects the believer has a sufficient amount of information about while some de dicto beliefs are about objects the believer may know nothing about.
Are any of these differences an intrinsic difference? No. First, whether a belief represents anything is extrinsic to the belief state inside the head. If a belief represents anything, it does so in virtue of a relation which holds between the belief state and the object.

Second, whether the believer has experienced the object his belief represents is extrinsic to the belief itself. Whether the object has been experienced depends on a relation between the agent and the object.

Third, there is no context-independent standard for when an identifying or descriptive belief is sufficiently informative; therefore, the difference between de dicto beliefs which represent an object the agent has experienced and de re beliefs is not an intrinsic difference. The difference is pragmatic since whether the identifying or descriptive belief is sufficiently informative depends on the interests and requirements of the people involved in the context.

Therefore, none of the three differences between de re and de dicto belief implies that there is an intrinsic difference between them. De dicto and de re beliefs do not have different internal structures. There is a difference between de re and de dicto beliefs, but it is not a difference in kind.
Since whether a belief is sufficiently informative is context relative, the satisfaction of the specificity requirement is context relative, and this implies that the difference between de re and de dicto belief is context relative.

I shall continue to call certain beliefs 'de re', relativized to a context, because there are beliefs about existing objects which the believer has specifically in mind. I do not call some beliefs 'de re' in order to indicate that there is a distinct kind of belief, or to suggest that there are two kinds of belief, a de re belief and a de dicto belief.

I am not the first to argue that there is only one kind of belief. The point was first made by Ernest Sosa in "Propositional Attitudes De Dicto and De Re," and was suggested again by Richard Grandy in "Reference, Meaning, and Belief." The point has become more widely known and accepted in the last few years with Quine's "Intentions Revisited" and Searle's "Intentionality and Method." However, my argument is different from theirs.

Sosa and Quine argue essentially as follows. A belief sentence describes a de re belief if and only if the term in the nominal content clause is "distinguished" or "vivid," i.e., suitable for exportation. Otherwise, the belief sentence describes a de dicto belief. It is
context relative whether a term in the nominal content clause is distinguished or vivid; therefore, whether the described belief is de re or de dicto is context relative. Consequently, it is not the case that there are two kinds of belief.

This seems to be the argument expressed by Quine when he says that the proposition that a designator is vivid only relative to a context "virtually annuls the seemingly vital contrast between 'Ralph believes '(∃x) (x is a spy)' and '(∃y)(Ralph believes 'spy' of y)'" between merely believing there are spies and suspecting a specific person. At first this seems intolerable, but it grows on one. I now think the distinction is every bit as empty, apart from context, as that of vivid designator: that of knowing or believing who someone is.\(^7\)

Sosa and Quine argue from there being no context independent characterization of a distinguished or vivid term to there being no context independent characterization of de re and de dicto beliefs. My argument is different in that I do not use as a premiss the claim that whether a term is distinguished or vivid is context dependent. My argument does not proceed from premisses about terms in content clauses of belief sentences, but from the lack of any intrinsic difference between de re and de dicto beliefs. However, by stating there is only an extrinsic
difference between de re and de dicto belief, I do not intend to deny any connection between a term's being distinguished or vivid and the believer's belief being de re.

Grandy and Searle speak about different types of belief report, and deny that there are two corresponding types of belief. There are two ways to report one belief. Grandy argues,

The apparent distinction between the referentially transparent and the opaque sense of belief may reflect a tension between two points of view in reporting a belief. In the case where one is primarily concerned with the form of words the subject would utter or assent to, relatively little scope for paraphrase is permitted. But when one wants to stress the object that is causally involved in the belief (almost) any description that picks out the relevant object can be substituted in the belief sentence. This actually suggests that there are not, in ordinary English, two senses of belief, but rather various uses of belief sentences.  

Searle argues as follows:

Though the truth conditions of (de re belief reports and de dicto belief) reports are different, it does not follow that the beliefs reported are different. Notice that the distinction we the reporters can make from our third-person point of view is not a distinction . . . from the first person point of view. In our (linguistic) representation of (the believer's internal) representation we can decide how much of the original representation we shall just report and how much we can commit ourselves to; but that is not a distinction that (the believer) can make because he is committed to the whole content of the representation, since it is all his belief.
Grandy and Searle argue against the claim that there are two types of belief because there are two ways to report a belief. They claim that this inference is simply a nonsequitur. My argument is that there is only one kind of belief because the difference between de re and de dicto beliefs is not an intrinsic difference. Being careful not to stress too much difference, I do not intend to deny any connection between the appropriateness of using one kind of belief report on a given occasion and whether a believer has a belief which satisfies the existence and specificity requirements on that occasion.

To summarize, there are three ways a de re belief may differ from a de dicto belief; whether the belief represents anything, whether the belief represents an object the believer has experienced, and whether the believer has a sufficient amount of information about the object represented by his belief. None of these differences are intrinsic; therefore, there is no intrinsic difference between de re and de dicto belief. The differences are extrinsic and context-relative. My argument that there is only one kind of internal belief state differs from other arguments in that I argue from the conditions under which someone has a de re belief.
FOOTNOTES

1 Cf. my argument in Chapter 1, Section 7.


7 W. V. Quine, p. 273.

8 Grandy, p. 447.

9 Searle, p. 725.
CHAPTER 4

THE QUINEAN ANALYSIS
OF DE RE BELIEF SENTENCES

4.1 INTRODUCTION

We ended the last chapter giving the conditions under which someone has a de re belief. I now want to turn our attention to de re belief sentences. There are some ordinary language belief sentences which represent the beliefs being described as being about an existing object the believer has specifically in mind. These are ordinary language de re belief sentences. Some examples are

There is someone in particular Ralph believes to be a spy,

Ortcutt is such that Ralph believes he is a spy,

Ralph believes of Ortcutt that he is a spy,

I believe that this book belongs to me.

In this chapter, I want to raise the question of the logical form of de re belief sentences, and to evaluate four different proposals. I shall present and adopt the basics of the Quinean analysis of de re belief sentences, and show that it is superior to Hintikka’s, Kaplan’s and Strawson’s analyses.
By 'the logical form of an ordinary language sentence' I mean the sentence's translation in symbolic notation. As a general rule, we want to capture in the formal translation all of and only the meaning that is expressed by the ordinary language sentence. Strictly speaking, rules of inference such as the principle of substitutivity and existential generalization apply at the formal level and are not applied to ordinary language sentences.

When translating an ordinary language sentence into formal notation, we want to identify the predicate(s) to be used in the formal translation, and identify the number of argument places each predicate has. Also, if an ordinary language statement is ambiguous, we want to have different formal translations for each reading of the ambiguity.

One final desideratum. We want intuitively valid informal arguments to translate into formally valid arguments, and we want intuitively invalid informal arguments to translate into formally invalid arguments. The validity and invalidity of formal arguments should mirror the intuitive validity or invalidity of informal arguments.

One might ask how I can on the one hand have valid formal arguments involving de re belief sentences, and on the other hand have the difference between de re and de dicto belief be context relative. Don't these imply that
formal arguments involving de re belief sentences are valid or invalid only in certain contexts? No. All that is implied is that a formal argument involving de re belief sentences is valid or invalid given that the context remains fixed. There is a difference between being valid only in certain contexts and being valid keeping the context fixed. The former is objectionable, the latter is not.

Examples show that many arguments are valid, but only because we implicitly assume that the context is fixed throughout the argument. Consider

(A) Tom is tall.
John is tall.

Therefore, Tom and John are tall.

This informal argument is intuitively valid. However, 'x is tall' is a relative predicate. Someone can be tall for a pygmy but short for a giant. Therefore, argument (A) is valid only on the assumption that the same standard for being tall is employed throughout the argument. If this were not being assumed, (A) would be invalid. But to say that (A) is valid only if we keep the standard fixed is not to say that (A) is valid for certain standards and invalid for others. It is logically acceptable to make the validity of (A) depend on keeping the same standard; it is logically unacceptable to make the validity of (A) depend on what standard is being used.

Another example.
(B) (i) Tom is tall.
(ii) Tom = Mr. Smith
(iii) Therefore, Mr. Smith is tall.

This argument is also valid, and is justified by the principle of substitutivity. However, (B) also involves the predicate 'x is tall'; therefore, like (A), (B) assumes that the same standard for being tall is used. Suppose that while replacing 'Tom' with the coreferential 'Mr. Smith', we also change the standard for being tall from being over 76 inches tall to being over 80 inches tall. Then, if Tom is 78 inches tall, (Bi) is true and (BiIII) is false. So, the validity of (B) assumes that the same standard for being tall is used throughout the argument. Again, this is not the same as saying that (B) is valid only for certain standards for being tall.

The distinction between an argument's being valid only in certain contexts and an argument's being valid so long as the context remains fixed can be extended to the validity of arguments involving de re belief sentences. Suppose p is a de re belief sentence. Since whether a belief is de re or de dicto is context relative, p is true or false relative to a context. Suppose p is true in context C. Now suppose we correctly apply a rule of inference on p, like the principle of substitutivity, which normally preserves truth, but that when we apply the rule of inference, with the result being sentence p',
we change the context to context C'. If p' is false in context C', truth is not preserved, but the problem is not that the rule of inference preserves truth in context C and does not preserve truth in context C'. p' is false because of the change in context.

My point is that I can consistently and appropriately claim both that whether a belief is de re or de dicto is context relative and that it is not the case that the validity of arguments involving de re belief sentences holds only in certain contexts. We eliminate any doubt that we can claim both once we recognize the difference between 'valid only in certain contexts' and 'valid keeping the context fixed'.

In Section 4.12, I present the Quinean analysis of de re belief sentences in terms of a three-place predicate.

In Section 4.3, I present Hintikka's criticism of Quine's analysis, reply to these criticisms, and then show the superiority of Quine's analysis over Hintikka's.

In Section 4.4, I present David Kaplan's criticism of Quine's analysis. I criticize Kaplan's own proposal, and defend Quine's introduction of a new three-place belief predicate.

In Section 4.5, I present P. F. Strawson's alternative to the Quinean analysis. Strawson does not introduce a new three-place belief predicate, and offers his
alternative as superior to Quine's analysis due to its greater simplicity. Strawson's alternative, however, is open to a critical objection, and is therefore not an acceptable alternative to Quine's analysis.

I conclude the chapter with some remarks anticipating the next and final chapter.

4.2 THE QUINEAN ANALYSIS OF DE RE BELIEF SENTENCES

In this section, I lay out the Quinean analysis of de re belief sentences. It is "Quinean" rather than "Quine's" because I include some changes in Quine's own original analysis. I do not go into the details of the criticism of Quine's original analysis which motivate the changes because they are well known and easily found in the literature. I start with Quine's approach to de re belief sentences because I find it the most plausible way to analyze de re belief sentences, and Quine's approach has been the dominant approach since he first proposed it. In the following three sections I will consider objections to the Quinean approach.

Consider the ambiguous

(1) Ralph believes that Ortcutt is a spy, and suppose we want to give (1) a de re reading. In ordinary English, the de re reading of (1) is either

(2) Ralph believes of Ortcutt that he is a spy,
or

(3) Ortcutt is believed by Ralph to be a spy.
(2) and (3) are ordinary language belief sentences which
describe Ralph's belief as one about an existing person
Ralph has specifically in mind. What is the logical form
of (2) and (3)?

In "Quantifiers and Propositional Attitudes,"¹ Quine
analyzes (2) and (3) as

(4) Ralph believes z(z is a spy) of Ortcutt,

or as it has been more often represented,

(5) Believes (Ralph, Ortcutt, 'x is a spy').

The predicate in (2) and (3) is, according to (5), a
three-place predicate. In (5), the term in the first
argument place denotes the believer. The term in the
second argument place denotes the object the belief is
about. The third argument place contains the open
sentence the believer ascribes to the object his belief
is about. 'Ralph' and 'Ortcutt' occur transparently in
(5); therefore, we can substitute either name with a
coreferential name *salva veritate*, and we can quantify
over either name.

In "Quantifiers and Propositional Attitudes," Quine
claims that the de re belief predicate is an n-adic
predicate depending on how many terms the belief sentence
contains. For example,
(6) Cicero and Cataline are such that Tom believes Cicero denounced Cataline

is analyzed as

(7) Tom believes yz(y denounced z) of Cicero and Cataline,

or

(8) Believes (Tom, Cicero, Cataline, 'y denounced z').

So, if a de re belief sentence contains n terms, then the belief predicate in the sentence is an n-place predicate.

Many philosophers have since criticized this part of Quine's analysis. They do not want to postulate a predicate which has a variable number of argument places. As a result, philosophers have changed Quine's analysis so that it includes sequences of individuals. Thus, (6) is analyzed as

(9) Believes (Tom, ⟨Cicero, Cataline⟩, 'y denounced z').

By introducing sequences of objects, the de re belief predicate remains three-place on all occasions of its use.

There has been one other minor expansion of Quine's original analysis. Brian Loar in "Reference and Propositional Attitudes," notes an ambiguity in ordinary language de re belief sentences, and amends Quine's formal analysis to reflect the informal ambiguity. Loar noted that

(10) Michael believes that that masked man is a diplomat
may report both how Michael picks out the object his belief is about, and that Michael has a particular person in mind. To capture these aspects on the formal level, Loar translates (10) into a formal belief sentence exhibiting the three-place de re belief predicate, and puts the description under which Michael has the belief into the third argument place containing the open sentence the believer predicates to the object of belief. That is, (10) is translated into

(11) Believes (Michael, [that masked man], 'x is a diplomat and x is that masked man').

Loar's expansion does not change the transparency of occurrences of terms in the first and second argument place.

To summarize, the Quinean analysis of de re belief sentences is that the de re belief predicate is a three-place predicate; the expression in the first place denotes the believer, the expressions in the sequence denote the objects the belief is about, and the third argument place contains an open sentence.

4.3 HINTIKKA'S CRITICISM OF QUINE

Quine's major critic throughout the 1960's was Jaakko Hintikka. Together with Quine's "Quantifiers and Propositional Attitudes," and Word and Object, Hintikka's
Knowledge and Belief and supporting articles dominated the literature on de re belief into the 1970's.

In this section, I shall present two of Hintikka's arguments against Quine. These two arguments attempt to show that in order to formally represent the invalidity of certain informal arguments, we must separate quantification from transparency and substitutivity. I shall defend Quine by showing that Quine can accurately represent on the formal level the invalidity of these informal arguments without separating quantification from transparency and substitutivity.

In addition to defending Quine, I shall give a positive reason for preferring Quine's formalization. I shall argue that Hintikka's formalization is inadequate. Hintikka interprets the existential quantifiers in de re belief sentences as lacking any ontological commitment, but de re belief sentences should entail the existence of the objects the agent's belief is about.

Quine and Hintikka agreed on several points. They agreed that a term occurs transparently if and only if it can be replaced by a coreferential term *salva veritate*. They agreed that a belief sentence in a formal language is a de re belief sentence if and only if one can quantify over terms occurring in the belief context. They agreed that there are de re belief sentences, and that de re beliefs are describable by de re belief sentences.
Finally, they both tried to understand de re belief by analyzing de re belief sentences.

Quine and Hintikka disagreed on their analysis of de re belief sentences. One first theoretical difference between Quine and Hintikka involves the connection between quantification and transparency in the formal representation of ordinary language belief sentences.

In classical quantification theory, quantification, transparency and substitutivity all go together. The principle of substitutivity is explicative of the idea of singular reference. One can replace 'a' in the true sentence 'Fa' with a coreferential term 'b' *salva veritate* because the referent satisfies the open sentence 'Fx' regardless of how it is named. *(∃x)(Fx)*' is true if and only if there is at least one object in the range of the variable that satisfies the open sentence 'Fx'. The inference from 'Fa' to *(∃x)(Fx)*' is justified because in performing it, we are merely abstracting from the particular mode of designating an object in a true statement where no particular mode of designation is relevant to the truth of that statement. Failure of the inference from 'Fa' to *(∃x)(Fx)*' occurs if and only if 'a' in 'Fa' fails of singular reference.

Do these same rules apply when we extend quantification theory to include belief sentences? Quine says yes. The traditional rules of quantification theory can be
extended to formal sentences exhibiting belief predicates. For Quine, quantification, substitutivity and transparency continue to go together even after we extend quantification theory to include belief sentences.

By keeping quantification, transparency and substitutivity together, Quine is led to introduce the new belief predicate. Suppose we want to translate the ordinary English belief sentence 'Sam believes that Tom is tall' into a de re belief sentence in formal notation. Since quantification is the mark of a de re belief sentence, the formal translation must be such that we can quantify over 'Tom', and a fortiori, 'Tom' must be in a purely referential position in the formal translation. Now, for Quine, de dicto belief sentences exhibit a two-place predicate and contain two terms, one referring to the believer, the other to a sentence. If we translate 'Sam believes that Tom is tall' into a de dicto belief sentence in formal notation, we get 'Believes (Sam, 'Tom is tall')'. This de dicto translation cannot double as a de re translation because 'Tom' does not occur as a name. So, in order to get a formal translation in which 'Tom' is a name occurring purely referentially and is a name replaceable by a bound variable, Quine introduces a new belief predicate which allows him to do it.

Hintikka says that when we extend quantification theory to include belief operators, we must separate
quantification from transparency and substitutivity. Hintikka restricts the principle of substitutivity to atomic formulas and identity sentences, but the quantifiers can still bind variables occurring in belief contexts. According to Hintikka, we need to quantify into belief contexts in order to give formal translations of ordinary language de re belief sentences, but the principle of substitutivity does not apply to terms occurring in belief contexts because formal belief sentences are not atomic.

So, as I understand this first difference between Quine and Hintikka, Quine extends the rules of quantification theory to the formal translations of ordinary language belief sentences, and thus continues to keep quantification, substitutivity and transparency together. Hintikka does not extend substitutivity and transparency to the formal translations of ordinary language belief sentences, and by extending quantification to formal belief sentences, separates quantification from substitutivity and transparency in doxastic logic.

Hintikka presents the crux of his objection to Quine as follows. "What is unacceptable is that

\[(12) \ (\exists x) B_a (\text{the dictator of Portugal } = x)\]

is implied by

\[(13) \ a \text{ believes that the dictator of Portugal is Dr. Salazar,}\]

and therefore also by
(14) a believes that the dictator of Portugal is the dictator of Portugal, transparently interpreted. Since (14) is trivially true, (12) must be trivially true, too. It follows that no one can help knowing who Portugal's dictator is as soon as one knows that Portugal is a dictatorship."³ Hintikka's argument seems to be this. The informal argument

(14) a believes that the dictator of Portugal is the dictator of Portugal

(\therefore)(15) a has a belief regarding who the dictator of Portugal is

is invalid according to our pre-formal intuitions, yet Quine's formal translation of it is valid. Suppose (14) is translated into a formal sentence exhibiting the transparent sense of 'believes':

(16) Believes ( a, \{the dictator of Portugal\}, 'x is the dictator of Portugal').

By existential generalization, (16) implies

(17) (\exists x) Believes ( a, \{x\}, 'x is the dictator of Portugal'),

which is the formal translation of (15). So, (16) is the formal translation of (14), (17) is the formal translation of (15), and (16) implies (17) by existential generalization. The problem is that (14) does not imply (15). Quine represents as formally valid what is informally invalid. Hintikka's conclusion is that something is wrong with applying existential generalization to 'the dictator of Portugal'. Hintikka goes on to argue that
existential generalization can be applied only to terms which satisfy certain conditions, and by adding these conditions he separates quantification from transparency and substitutivity. In Hintikka's system, the formal translation of (14) does not imply (12), Hintikka's formal translation of (15).

Quine's way out of this criticism is pretty obvious. He does not need to question the application of existential generalization to 'the dictator of Portugal' in (16). He need only deny that (16) is the formal translation of (14). Hintikka calls the belief described by (14) "trivial." If it is trivial, it cannot be truly described by (16), which describes the belief as a non-trivial de re belief. If (16) were true, the belief being described would be about an existing individual which has specifically in mind. So, Quine need not re-evaluate the conditions for quantification in belief contexts; he needs only to reject Hintikka's translations of ordinary language belief sentences into formal sentences.

A second argument of Hintikka's that quantification should be separated from transparency and substitutivity is this. A belief sentence in a formal language is de re if and only if one can quantify over the singular terms occurring in the belief context. Belief contexts are always opaque; singular terms occurring in belief contexts do not occur transparently. Therefore, in formal de re
belief sentences, one quantifies over terms which occur
opaquely. 4

The crucial claim in Hintikka's argument is that be-
lief contexts are always opaque. The evidence for this
claim is the invalidity of informal arguments like

(18) Sam believes that Mr. Hyde is a murderer.
(19) Mr. Hyde = Dr. Jekyll
(20) Sam believes that Dr. Jekyll is a murderer.

This informal argument is invalid because Sam may not be-
lieve that Mr. Hyde is Dr. Jekyll. To represent the
invalidity of (18)-(19)-(20) on the formal level, Hintikka
restricts the principle of substitutivity to atomic
formulas and identities. Thus,

(21) B a Pb
(22) b = c
(23) B a Pc

is invalid in Hintikka's system because there is no truth
preserving principle of inference to derive (23) from
(21) and (22).

Since Quine agrees with the major premiss that
quantification is the mark of a de re belief sentence,
Quine must disagree with the premiss that belief contexts
are always opaque. Quine can either reject the evidence,
i.e., the invalidity of (18)-(19)-(20), or deny that the
evidence justifies the premiss. Quine's way out is to
accept the invalidity of (18)-(19)-(20), and deny that the
evidence implies the opacity of all formal belief con-
texts. In other words, Quine can reflect the invalidity
of (18)-(19)-(20) on the formal level without restricting
the principle of substitutivity to atomic formulas and
identities.

(18)-(19)-(20) is invalid on the assumption that the
subordinate clauses in (18) and (20) tell us what Sam
is willing to sincerely assert. Sam may be willing to
assert "Mr. Hyde is a murderer," but not be willing to
assert "Dr. Jekyll is a murderer." There are two ways
Quine can translate (18) and (20) to guarantee that this
assumption is reflected on the formal level. The first
option is to translate (18) and (20) into de dicto belief
sentences:

(24) Believes (Sam, 'Mr. Hyde is a murderer')
(19) Mr. Hyde = Dr. Jekyll
(25) Believes (Sam, 'Dr. Jekyll is a murderer').

This formal argument is invalid. It is not justified by
the principle of substitutivity because 'Mr. Hyde' in
(24) and 'Dr. Jekyll' in (25) do not occur as names, but
as a part of a quotation name. Quine's second option is
to translate (18) and (20) into de re belief sentences
which include the descriptions under which the belief is
held.
(26) Believes (Sam, \{Mr. Hyde\}, 'x is a murderer and x is Mr. Hyde').

(19) Mr. Hyde = Dr. Jekyll

(27) Believes (Sam, \{Dr. Jekyll\}, 'x is a murderer and x is Dr. Jekyll').

This formal argument is also invalid. (26) and (27) contain different predicates in the third argument place; therefore, Sam may believe one predicate is true of Mr. Hyde/Dr. Jekyll, but not the other. (Of course, we could replace the names in the second argument place in (26) and (27) with a coreferential name \textit{salva veritate}.) So, both of Quine's formal arguments representing the informal argument (18)-(19)-(20) are invalid, which is exactly what Quine wants.

The point is that Quine formally represents the invalidity of (18)-(19)-(20) without asserting that singular terms occurring in formal belief contexts always occur opaquely; therefore, the invalidity of (18)-(19)-(20) does not justify the premiss in Hintikka's argument that belief contexts are always opaque. Quine can formally represent the invalidity of the informal argument (18)-(19)-(20) without restricting the principle of substitutivity to atomic sentences and identities.

So far I have shown that Hintikka's two arguments for separating quantification from transparency and substitutivity in doxastic logic fail. Hintikka does not have any convincing arguments to reject the Quinean
approach of keeping quantification, transparency and substitutivity together in doxastic logic. But this does not rule out the possibility that Quine and Hintikka have different but equally adequate systems. So far, in fact, both Quine and Hintikka have been able to represent accurately on the formal level the validity and invalidity of informal arguments involving belief sentences. Is there any reason to prefer Quine's formalization over Hintikka's?

There is one informal argument which some might think that Quine can accurately represent on the formal level, and that Hintikka cannot, but this is incorrect. Consider the informal argument

(28) Sam believes of Tom that he is tall
(29) Tom = Mr. Smith
(30) Sam believes of Mr. Smith that he is tall.

Our pre-formal intuition is that this argument is valid. Quine represents it with

(31) Believes (Sam, ⟨Tom⟩, 'x is tall')
(29) Tom = Mr. Smith
(32) Believes (Sam, ⟨Mr. Smith⟩, 'x is tall').

This formal argument is justified by the principle of substitutivity. However, contrary to what we might expect, Hintikka's formal translation is also valid.

(33) (∃x)(x = Tom & B_{Sam} (x is tall))
(29)  Tom = Mr. Smith

(34)  (∃x)(x = Mr. Smith & B_{Sam}(x is tall)).

We derive (34) from (33) and (29) using the principle of substitutivity; it applies in this case because 'Tom' in (33) and 'Mr. Smith' in (34) do not occur inside a belief context.

The point is that both Quine and Hintikka can formally represent the validity of the informal argument (28)-(29)-(30); therefore, the example does not show that Quine's formalization of de re belief sentences is superior to Hintikka's.

At this point, it might even seem that Hintikka's formalization of ordinary language belief sentences is the superior because it utilizes only one belief predicate, and is a fortiori simpler than Quine's formalization, which utilizes two belief predicates. I think that it is an illusion that Hintikka's system is simpler than Quine's. Hintikka's formalization is simpler than Quine's insofar as it uses only one belief predicate, but it is more complex than Quine's insofar as Hintikka introduces new rules of inference to cover the extension of quantification theory which contains the new operators, belief and knowledge. On the other hand, Quine's formalization is simpler than Hintikka's insofar as it does not employ any new rules of inference, but it is
more complex because of the additional belief predicate. As I see it, simplicity provides no grounds for preferring either Quine or Hintikka. Quine and Hintikka simply trade off.

In order to find the fundamental reason why Quine's formulation of de re belief sentences is preferable to Hintikka's formulation, we have to look very closely at their interpretations of the existential quantifier. Is there any undesirable consequence of Hintikka's interpretation of existential quantifiers as they bind variables in belief contexts? I now want to argue that there is.

For Quine, existential quantifiers in doxastic logic make an ontological commitment. This is the result of extending the objectual interpretation of the quantifiers even when they occur in belief sentences. Hintikka, however, eventually denied that existential quantifiers in belief sentences make an ontological claim.

A de re belief sentence should make an existence claim. De re beliefs are always about an existing object; so, to capture this, an adequate de re belief sentence should represent the belief being described as being about an existing object. The problem with Hintikka's interpretation of existential quantifiers in de re belief sentences is that they do not make an ontological commitment; therefore, Hintikka's formulation of de re belief sentences is inadequate.
In *Knowledge and Belief*, Hintikka translates ordinary language sentences like 'Sam knows who Tom is' as '(∃x)K_{sam}(x = Tom)'. The quantifier is thereby connected with knowing who and having beliefs regarding who someone is. Now, it looks like '(∃x)K_{sam}(x = Tom)' makes an existential claim; indeed, Hintikka claims it does in *Knowledge and Belief*. The problem is that ordinary language locutions involving 'knows who' and 'believes who' make no existential commitment. 'Sam knows who Pegasus is' and 'Johnny has a belief regarding who Santa Claus is' do not entail the existence of Pegasus and Santa Claus. If '(∃x)K_{sam}(x = Pegasus)' makes an ontological commitment, and is the formal translation of 'Sam knows who Pegasus is', which does not entail the existence of Pegasus, then '(∃x)K_{sam}(x = Pegasus)' is not an accurate translation of 'Sam knows who Pegasus is'. Further, Hintikka is unjustified in claiming that '(∃x)K_{sam}(x = Pegasus)' implies '(∃x)(x = Pegasus)' insofar as '(∃x)K_{sam}(x = Pegasus)' expresses an existential claim not found in 'Sam knows who Pegasus is'. One should put into a translation only what is in the sentence being translated.

Seven years after the publication of *Knowledge and Belief*, Hintikka explicitly rejects the condition (C.EK=) which states
if '(%x)K_a(x=b)' is in $\mathcal{M}$, then '(%x)(x=b)' is in $\mathcal{M}$.

Informally stated, Hintikka eventually rejects that $b$ exists if $a$ knows who $b$ is. Hintikka rejects this rule because of sentences like 'Sam knows who Pegasus is'.

So, Hintikka carries out to its appropriate conclusion the consequences of translating 'a knows who b is' into '(%x)K_a(x=b)': since 'a knows who b is' does not entail the existence of b, neither does its formal translation '(%x)K_a(x=b)'.

The point is that on Hintikka's interpretation of existential quantifiers in belief sentences, quantification and existence are separated while quantification and the ability to specify and provide informative descriptions become intimately connected. Since quantification into a belief context is the mark of a de re belief sentence, we are left with a de re belief sentence which does not imply the existence of the object the de re belief is about. But since an adequate de re belief sentence should make this existential commitment, Hintikka's formulation of de re belief sentences are inadequate. They do not represent the de re beliefs being described as beliefs about existing things.

I conclude that Quine's formalization of de re belief sentences is superior to Hintikka's because Quine's formal de re belief sentences represent the beliefs being
described as about an existing object while Hintikka's formal de re belief sentences do not represent the belief being described as about an existing object.

4.4 KAPLAN'S CRITICISM OF QUINE

The next critique I want to consider comes from David Kaplan. The issue which starts "Quantifying In" is the analysis of what Kaplan calls intermediate occurrences of singular terms. A term occurs intermediately if it neither occurs vulgarly, as 'nine' does in 'nine is greater than five', nor accidentally, as does 'mary' in 'summary'. For example, 'nine' occurs intermediately in 'it is necessary that nine is greater than five' and 'Hegel believed that nine is greater than five'. Kaplan considers two approaches to analyzing intermediate occurrences, Frege's and Quine's. Frege assimilates intermediate occurrences to vulgar occurrences. Quine assimilates intermediate occurrences to accidental occurrences.

In the first half of "Quantifying In," Kaplan argues against Quine's approach and in favor of Frege's. The test used to decide between these two approaches is how adequately each approach makes a connection between an intermediate occurrence of a singular term and a vulgar occurrence of the singular term. Kaplan is interested in making a connection between, for example,
'nine' as it occurs in 'Hegel believed that nine is greater than five' and 'nine' as it occurs vulgarly. What kind of connection? I do not know. Kaplan never spells out what kind of connection he is trying to make. He is very unclear on the nature of the test. He simply does not take the time to spell it out.

One thing, however, is relatively clear. For Kaplan, what we get when we establish a connection between a singular term 't' occurring in the belief context of a belief sentence and 't' as it occurs outside a belief context is a belief sentence which describes a de re belief. If we can make a connection, the belief sentence can be used to describe a de re belief. If there is no connection, it cannot be used to describe a de re belief. We want to establish a connection between a term 't' in a belief context and 't' as it occurs outside the belief context in those cases where we are describing a de re belief.

In this section, I shall present Kaplan's argument against Quine and Kaplan's Fregean proposal, and then I shall object to the proposal.

Kaplan's argument appears in Section 2 of "Quantifying In." It is too long to quote. As I understand it, the argument goes like this.
(a) Suppose we assimilate intermediate occurrences to accidental occurrences (Quine's approach)

(b) If (a), there is no connection between a singular term as it occurs intermediately in a belief context and as it occurs outside belief contexts.

(c) Therefore, there is no connection between a singular term as it occurs intermediately in a belief context and as it occurs outside belief contexts.

(d) If we still want to make some kind of connection between a singular term as it occurs in a belief context and as it occurs outside the belief context, then we have to introduce a new primitive three-place belief predicate.

(e) Such an introduction is unjustifiably ad hoc.

(f) Either we give up making a connection between a singular term as it occurs in a belief context and as it occurs outside belief contexts, or we give up Quine's approach.

(g) We want to make a connection between a singular term as it occurs in a belief context and as it occurs outside belief contexts. (Because we want belief sentences that can be used to describe de re beliefs)

(h) Therefore, we give up Quine's approach.

What is the argument for (b)? By assimilating intermediate contexts to accidental contexts, 'believes that nine is greater than five' becomes a simple predicate. Kaplan takes this to imply that 'believes that nine is greater than five' is an indissoluble whole, and a fortiori, that just as there is no connection between
'mary' in 'summary' and 'Mary' in 'Mary read a book', there is no connection between 'nine' as it occurs in 'Hegel believed that nine is greater than five' and 'nine' as it occurs vulgarly outside belief contexts.

In (d), Kaplan still allows for the possibility of establishing some kind of connection between a term occurring in a belief context and as it occurs outside belief contexts. But since Quine cannot use simple predicates of the form 'believes that p' to make a connection, he must introduce a new belief predicate. In belief sentences using this new belief predicate, the singular term in the belief context occurs transparently, and refers to the same object as when it occurs transparently outside of belief contexts. In this way, Quine can establish some kind of connection between a term occurring in a belief context of a belief sentence and the term as it occurs outside belief contexts. And by virtue of this connection, Quine has a belief sentence which can be used to describe de re beliefs. Sentences exhibiting this three-place belief predicate describe de re beliefs.

Kaplan rejects the introduction of a new belief predicate. "The possibility of introducing such forms always exists and the style of their introduction seems uniform, but since they are primitive, each such introduction must be supplied with an ad hoc justification
to the effect that the predicate or operator being introduced makes sense."\(^8\)

We want to make a connection between a singular term occurring intermediately in a belief context and as it occurs outside belief contexts because there are cases when we want to describe a de re belief. Quine's approach allows us to make a connection only in an ad hoc way. Therefore, we should reject Quine's approach, and unless there are problems, adopt Frege's approach.

Following Frege's approach, Kaplan proposes that ordinary language belief sentences used to describe de re beliefs exhibit the two-place belief predicate on the level of their logical structure. Kaplan establishes a connection between the singular term as it occurs intermediately in the belief context and as it occurs outside belief contexts with its normal reference by using a denotation predicate which relates the term in the belief context to its normal reference. The logical structure of belief sentences which describe de re belief is

\[(35) \quad (\exists \alpha) (R(\alpha, a, S) \land S \vdash \Gamma \text{ is } \tilde{F})\],

where 'R(\alpha, a, S)' abbreviates '\(\alpha\) represents \(a\) for \(S\)'. The quantifier ranges over linguistic expressions and mental items such as images or sensory impressions. The corner quotes are exactly like single quotes except that they permit quantification over elements in the expression within the corner quotes. Kaplan says that the single
quotes of Quine prohibit this because the expression within the single quotes is an indissoluble whole. A phrase with quotation marks around it is a name of the phrase within the quotation marks. In de dicto belief sentences, the subordinate that-clause expresses the content or mode of presentation of the belief being described; therefore, on the formal level, the corner quotation name in the right conjunct of (35) names an expression which expresses the content of the belief being described.

I now want to argue against (35). The problem is rooted in the range of the quantifier. The range includes both linguistic expressions and mental items. I shall argue that the corner quotation name in the right conjunct of (35) does not always name something which can express the content of the belief being described.

In the first part of "Quantifying In," \( \alpha \) ranges only over linguistic expressions. As long as \( \alpha \) ranges only over linguistic expressions, (35) makes perfect sense. The quantifiers are, I presume, interpreted substitutionally. (35) is true just in case there is a single term we can plug into both conjuncts which will make both conjuncts true. One advantage of the substitutional interpretation is that it allows one to quantify into quotation; (35) exploits this possibility. Another advantage of the substitutional interpretation is that it
allows for a single quantifier to bind two occurrences of the same substituends where on one occurrence the substituends is used, but on the other occurrence is mentioned. In a substitution instance of (35), the substituends would be used in the left conjunct, but mentioned in the right conjunct. Finally, there is no problem with placing corner quotes around a linguistic phrase, and the corner quotation name in the right conjunct of (35) names a sentence which expresses the belief's content.

In the second half of "Quantifying In," Kaplan extends the items that can be substituted for the variables to include mental items because he realizes that many de re beliefs do not involve language, e.g., the perceptual de re beliefs of a three month old baby. But extending the items that can be substituted for the variables raises many questions.

Can we continue to interpret the quantifiers substitutionally? Can internal representations be substituends for the variables, or should we switch to the objectual interpretation, and say they are objects in the range of the variables? Can a particular mental image be a component of a true sentence such that we can replace the mental image with an existentially bound variable? Can a particular internal representation be both used in a substitution instance of the left conjunct of (35) and mentioned in a substitution instance of the right
conjunct of (35)? Can we place quotation marks around an internal representation and get a quotation name of the internal representation? If an internal representation fills in the blank in '___ is F', what does the quotation name name? The internal representation and the predicate 'x is F'?

All these questions are substantive, and need to be answered by Kaplan before his account can be accurately assessed. I doubt whether these questions can be adequately answered. Kaplan seems to be treating internal representations as if they were linguistic entities, and this I think is a mistake.

But suppose that Kaplan answers all these questions to our satisfaction. There is still one more unconquerable problem. The corner quotation name in 'S believes Γα is F' names what is within the corner quotes, and because of the function of the subordinate that-clause in de dicto belief sentences, the corner quotation name is supposed to name something which expresses the content or mode of presentation of the belief being described. Presumably, when α is replaced by an internal representation, the corner quotation name refers at least in part to the internal representation which represents the objects the belief is about.

The question is, can an internal representation
express its own mode of presentation? I think not. The relation of expressing, and of other relations in the same family as expressing, e.g., modeling and representing, are irreflexive. We normally do not think that something can express itself. Our words and actions express our thoughts and feelings, but these expressions do not express themselves. The closest we get to self-expression is when we say that someone expressed himself well, but by this we mean that the person's words expressed his thoughts or feelings well. The whole idea of a model is to have a domain of familiar objects behaving in a familiar way such that we can get some understanding of the behavior of some different, less familiar domain of objects. The very word 're-present' tells us that a domain of objects is made present again by some other domain of objects. Since the expressing relation is irreflexive, an internal representation cannot express its own mode of presentation. An internal representation does not represent or model itself as having some particular mode of presentation.

My point is that when Kaplan extends the quantifiers so that they can be replaced by internal representations, the corner quotation names can no longer always name something which expresses the content of the belief being described. I see no way out for Kaplan as long as the expressing relation is irreflexive, the corner quotation
name is supposed to name something which expresses the content of the belief, and the corner quotation name sometimes names the internal representation whose content is supposed to be being expressed.

As far as Kaplan's argument against Quine is concerned, premiss (d) is true, i.e., the introduction of a primitive three-place belief predicate is unjustifiably ad hoc, only if there are viable alternatives which do not introduce the new belief predicate. Kaplan's proposal is not a viable alternative; therefore, Quine's introduction of a new belief predicate may be ad hoc, but justifiably ad hoc since there is no other adequate way known to analyze the logical form of belief sentences used to describe de re beliefs.

4.5 STRAWSON'S ALTERNATIVE TO QUINE

In a recent article, "Belief, Reference and Quantification,"9 P. F. Strawson offers an alternative to Quine's analysis of the logical structure of de re belief sentences. I say 'alternative' because Strawson does not spend any time criticizing Quine's analysis. In fact, he says he does not question the formal adequacy of Quine's proposal. However, Strawson does believe that his analysis is preferable to Quine's because of its greater simplicity. Strawson tries to account for the logical
structure of de re belief sentences without introducing a new three-place belief predicate.

The success or failure of Strawson's alternative rides on the alternative's own merits or faults. In this section, I shall argue that a crucial claim needed to support Strawson's alternative is false.

Strawson asks us to consider

(36) Philip believes that Mary is a scholar

and

(37) Philip believes that John loves Mary, where 'Philip', 'John', and 'Mary' perform the function of direct reference, i.e., occur purely referentially. We can replace 'Mary' in (36) with a free variable and get

(38) Philip believes that x is a scholar, which is a one-place compound predicate. If we replace 'Philip' in (38), we get the two-place non-symmetrical compound predicate,

(39) believes to be a scholar(x,y).

We can replace 'Philip', 'John' and 'Mary' in (37) with free variables and get the three-place compound predicate

(40) believes to love (x,y,z).

Sentences exhibiting the predicates in (39) and (40) permit existential quantification over singular terms which replace the free variables, and these singular terms can be substituted with a coreferential term salva veritate.
Sentences exhibiting these predicates are de re belief sentences because quantification into a belief context is a mark of a de re belief sentence.

Since (39) and (40) are compound predicates, they are made up of simpler elements. The common element "in all these compounds is the element--presumably itself a unitary, i.e., non-compound, predicate--'believes' itself."\textsuperscript{10} Strawson wants to prove that the simple two-place de dicto belief predicate enters into and yields different compound predicates of two or more places which are all predicates of particular individuals.

According to Strawson, "the answer resides in two facts: (a) that the proposition being said to be believed itself has structure and the grasp of what is being said to be believed involves grasps of that structure and of the structured elements; and (b) that terms can figure with direct reference inside the belief-specifying clause of the belief attributing utterance."\textsuperscript{11}

I want to object to Strawson's support for (a); in particular, the claim that to grasp what proposition is being asserted to be believed is the same as to grasp which individual(s) the belief is about. According to Strawson, to support (a), he has to show that (37) has the form of both

(41) Believes (Philip, that F(a,b))
and

(42) Believes that F (Philip, a,b).

I don't think Strawson has shown this.

Prima facie, there are reasons to doubt Strawson's claim. If 'John' and 'Mary' in (37) occur purely referentially, then 'John' and 'Mary' do not express the content of Philip's belief. They do not model the way Philip picks out the two individuals. If they did express the content of Philip's belief, they would not occur purely referentially, but opaquely. However, if (37) had the form of (41), then 'John' and 'Mary' would express the content of Philip's belief; content clauses of de dicto belief sentences express the content of the belief being reported. Therefore, if 'John' and 'Mary' in (37) occur purely referentially, then (37) does not have the form of (41).

With this argument, I am not saying that if 'John' and 'Mary' in (37) occur purely referentially, then they tell us nothing about the content of Philip's belief. 'John' and 'Mary' tell us who Philip's belief represents. 'John' and 'Mary' tell us that through some unspecified mode of presentation, Philip's belief state represents John and Mary. By occurring purely referentially, 'John' and 'Mary' do not specify the mode of presentation of Philip's belief state; they do tell us who is represented
by Philip's belief state.

Why does Strawson think that it is the same to grasp the proposition being asserted to be believed and to grasp which individuals the belief is about? Strawson says,

I think it is really obvious that to grasp the statement viewed as having the form of (41) is the same thing as to grasp what is said as having the form of (42). For to grasp what proposition is being asserted to be believed by Philip is the same thing as to grasp which individual is being asserted to be believed by Philip to love which other individual. These two different descriptions of one and the same 'act of understanding' are tailored respectively to viewing what is said as having the form (41) and to viewing what is said as having the form (42). 12

But what is obvious to Strawson seems false to me.

Hearing some kinds of belief report, I can grasp which individuals Philip's belief is about without grasping the propositional content of Philip's belief, i.e., without grasping the mode of presentation of Philip's belief. This happens when the reporter of the belief intends to communicate who Philip's belief is about without intending to communicate how Philip picks the individuals out. Someone can report who a belief is about without reporting the propositional content of the belief, i.e., without reporting how the believer conceives the object his belief is about. If a reporter can have these different communicative intentions, to grasp a belief report having
the form of (41) is not the same as grasping a belief report having the form of (42).

With this argument, I am not denying that one and the same belief can be reported with statements of the form of either (41) and (42). I am denying that a belief report has the form of both (41) and (42) because reports having either form can describe the same belief state. I mention this because the last sentence I quoted from Strawson, one not very clear to me, is perhaps saying that since belief reports having either the form of (41) or (42) can describe a single belief, belief reports like (37) have the forms of both (41) and (42).

Strawson's account of the logical structure of de re belief sentences is preferable to Quine's only if there is no objection to Strawson's account. I have rejected Strawson's account because it depends on the false claim that to grasp the proposition asserted to be believed is the same as to grasp which individuals the belief is about. Therefore, Strawson's account is not preferable to Quine's.

4.6 CONCLUSION

The conclusion of the previous three sections is that the Quinean analysis of ordinary English belief sentences like

(2) Ralph believes of Ortcutt that he is a
spy

and

(3) Ortcutt is believed by Ralph to be a spy in terms of a sentence exhibiting a three-place predicate.

(5) Believes (Ralph, Ortcutt, 'x is a spy') is the best analysis. Quine's analysis beats out Hintikka's, Kaplan's and Strawson's criticisms and/or proposals.

In the next chapter, I shall further develop the Quinean analysis of de re belief sentences by reflecting within the three-place belief predicate framework an ambiguity hitherto unnoticed in ordinary language belief sentences. This development will lead to a more general statement of the logical form of de re belief sentences; Quine's original analysis and the Quinean analysis as amended by Loar become special cases. Finally, in the next chapter I shall give the truth-conditions for formal de re belief sentences.
FOOTNOTES


4Cf. Hintikka, pp. 133-44.

5Hintikka, p. 160.


8Kaplan, p. 117.

9P. F. Strawson, "Belief, Reference and Quantification," The Monist, 63 (1979), pp. 143-60.

10Strawson, p. 149.

11Strawson, p. 149.

12Strawson, p. 150.
CHAPTER 5

THE LOGICAL FORM OF DE RE BELIEF
SENTENCES AND THEIR TRUTH CONDITIONS

5.1 INTRODUCTION

In Chapter 4, I defended the Quinean analysis of de re belief sentences. According to the Quinean analysis, ordinary language de re belief sentences are translated into a formal sentence which exhibits a three-place belief predicate. In this Chapter, I want to expand on the Quinean analysis, and give all the possible forms a de re belief sentence might have. Afterwards, I shall give the conditions under which an instance of each of these possible forms is true.

In Section 5.2, I bring to our attention an ambiguity in ordinary language de re belief sentences which has been hitherto unnoticed. The ambiguity centers on the predicates which occur in the subordinate clause of the belief sentence. I shall argue that these predicates can be read in two different ways. On one reading, the predicates occur transparently, and refer to the properties the believer ascribes to the objects his de re belief is about. On the second reading, the predicates occur opaquely, and tell us how the believer conceives
the properties he ascribes to the objects his belief is about.

The significance of noting the ambiguity is twofold. First, it provides an answer to Stephen Stich's criticism of David Armstrong. In a discussion of animal beliefs, Armstrong claimed that predicates occurring in the belief contexts of belief reports can occur transparently. Stich criticized Armstrong on the grounds that there is no ordinary English belief sentence in which the predicates in the belief context occur transparently. If de re belief sentences are ambiguous in the way I specify, Stich is wrong on this point.

Second, with the ambiguity in informal belief sentences separated into two different formal translations, I can give a more general statement of the logical form of de belief sentences. Quine's own analysis, and Quine's analysis as amended by Brian Loar, become special cases of my version of the Quinean analysis.

In Section 5.3, I state the four possible forms a de re belief sentence might have. These four forms differ in what they say about the content of the de re belief being described. In the first case, the de re belief sentence does not specify the content of the de re belief being described. In the second case, the de re belief sentence specifies how the believer conceives the objects represented by the belief state, but it does not
specify how the believer ascribes to the objects his belief is about. In the third case, the belief sentence specifies how the believer conceives the properties he ascribes to the objects his belief is about, but the sentence does not specify how the believer conceives those objects. In the fourth case, the belief sentence specifies how the believer conceives both the objects and the properties represented by the belief.

In Section 5.4, I state the truth-conditions for each of the four possible forms of a de re belief sentence. These conditions are taken from my analysis of the conditions under which someone has a de re belief in Chapter 3, Section 3.

5.2 TRANSPARENT AND OPAQUE OCCURRENCES OF PREDICATES IN THE BELIEF CONTEXTS OF DE RE BELIEF SENTENCES

In this Section, I want to argue that some ordinary English de re belief sentences are ambiguous in a way unnoticed until now; in particular, that the predicates occurring in the belief context are ambiguous between transparent and opaque readings. I shall defend the idea of transparent occurrences of predicates from a criticism by Stephen Stich.

Consider
(1) Joe believes of Tom that he is six feet tall.

(1) is ambiguous between two readings. (1) can be read as

(2) Joe believes of Tom that he has the property of being six feet tall,

or as

(3) Joe believes of Tom that he has the property Joe conceives of as the property of being six feet tall.

Which reading (1) receives depends on the communicative intentions of the reporter and on what is going on inside the believer's head. (2) asserts that Joe has an internal state which represents Tom as having the property of being six feet tall. (2) does not specify how Joe's belief state represents Tom and the property of being six feet tall. (3) also does not specify how Joe's belief state represents Tom, but it does specify how his belief state represents the property of being six feet tall. 'x is six feet tall' models the belief state's mode of representing the property of being six feet tall. So, whether (1) receives reading (2) or (3) depends upon the mode of presentation of Joe's belief state, and upon whether the reporter wants to specify the mode of presentation.

The difference between (2) and (3) is important. Joe may believe of Tom that he has the property of being six feet tall without Joe conceiving this property as the property of being six feet tall. This happens when Joe's belief state represents the property of being six feet
tall in some way that is not expressed by 'x is six feet tall'; for example, when 'x is 182.88 centimeters tall' expresses the way Joe's belief state represents the property of being six feet tall.

We can reflect the difference between (2) and (3) very easily on the formal level. (2) has the form

(4) Believes (Joe, Tom, x is six feet tall),

where 'Joe' denotes Joe, 'Tom' denotes Tom, and 'x is six feet tall' denotes the property of being six feet tall. Any of these terms can be replaced with a coreferential term salva veritate.

(3) has the form

(5) Believes (Joe, Tom, C(x, 'x is six feet tall')),

where 'Joe' denotes Joe, 'Tom' denotes Tom, and 'C(x, '___')' abbreviates 'x has the property the believer conceives in a way expressible by '___''. We cannot replace ''x is six feet tall'' in (5) with a different quotation name salva veritate because we would be replacing a predicate which expresses how Joe conceives a certain length with a predicate which may not express how Joe conceives that length. In the next section, I will explain why I wrote 'C(x, 'x is six feet tall')' rather than ''x is six feet tall''.

To further explicate the meaning of 'C(x, 'x is F')', I want to show that if the believer attributes to an object
a the property he conceives in a way expressible by 'x is F', then the believer attributes to a the property F. Suppose S has an internal belief state m with a content expressible in part by 'x is F'. In Chapter 1, Section 7, I suggested that the phrase 'is expressible by' be analyzed as 'can be modeled by', where a model is a domain of familiar objects behaving in familiar ways such that we can see how the domain being modeled would behave if they consisted of this familiar sort of thing. So, if belief state m has a content expressible in part by 'x is F', then the behavior of 'x is F' models the behavior of a part of m. Based on this modeling relation, if 'x is F' denotes the property F, then m represents the property F. 'x is F' does denote the property F; therefore, m represents the property F. Therefore, if S has an internal belief state m with a content expressible in part by 'x is F', then belief state m represents the property F.

While I am the first to argue that the predicates occurring in the belief contexts of ordinary English de re belief sentences are ambiguous between transparent and opaque readings, I am not the first to argue that there are transparent occurrences of predicates in de re belief sentences. David Armstrong introduced them first in Belief, Truth and Knowledge. Armstrong introduced transparent occurrences of predicates in de re belief
sentences in order to solve a problem concerning animal beliefs. Armstrong believes that the behavior of some animals is best explained in terms of beliefs and desires. The problem with attributing beliefs to animals is that since animals do not have the conceptual framework we humans have, we are unable to express the contents of animal beliefs, and this seems to challenge the whole idea of having true belief sentences about animals.

Armstrong tries to solve the problem by asserting that there are belief reports such that both the singular terms and the predicates in the belief context occur transparently. Such belief reports merely name the objects and properties the agent's belief represents. These belief reports do not express how the agent's belief represents those objects and properties. So, for Armstrong, it is okay to ascribe a belief to an animal even if we cannot express the content of the belief. A belief sentence can truly describe an animal's state even though the belief sentence describes only what the belief represents, and even though we may, as a matter of fact, be unable to express the content of the belief being described.

Stephen Stich has recently criticized Armstrong's position on two grounds. First, Stich criticizes Armstrong's completely transparent belief reports as totally novel and unjustified. Second, Stich argues that
beliefs can be ascribed to an agent only if the content of those beliefs can be specified or expressed; therefore, since we cannot express the contents of animal beliefs, we should not ascribe beliefs to them at all. This second criticism deals with an issue which is irrelevant to the present discussion. I only want to reply to Stich's first criticism which is directly relevant.

Stich argues,

Armstrong is simply mistaken about the behavior of the locutions we use in our everyday attributions of beliefs to animals. Our ordinary talk about animal beliefs cannot be viewed as employing a construction that behaves in the way Armstrong describes, since there is no locution in English that behaves that way.

Stich admits that singular terms in subordinate clauses of English de re belief sentences can occur either transparently or opaquely. He denies that there are any English de re belief sentences in which the predicate in the subordinate clause occurs transparently. Stich bases this denial on the intuitive invalidity of informal arguments like

(a) Joe believes that Tom is six feet tall

(b) something is six feet tall if and only if it is 182.88 centimeters tall

(c) Therefore, Joe believes that Tom is 182.88 centimeters tall,

where 'Tom' in (a) and (c) occurs transparently. This argument is invalid because Joe may not know how to
convert feet into centimeters.

In response, Stich is mistaken when he claims there is no ordinary English belief sentence in which the predicate in the subordinate clause occurs transparently. If Stich were right, then (1) wouldn't be ambiguous in the way I specified. But (1) is ambiguous between transparent and opaque readings of the predicate in the subordinate clause; therefore, there are ordinary English belief sentences in which the predicate in the subordinate clause occurs transparently.

Further, I can reflect the invalidity of (a)-(b)-(c) on the formal level without denying the ambiguity in (1). The argument (a)-(b)-(c) assumes that 'x is six feet tall' in (a) and 'x is 182.88 centimeters tall' in (c) express different ways Joe might conceive of the same length. If this were not being assumed, it would be irrelevant whether Joe knows how to convert feet into centimeters. In order to capture this assumption on the formal level, I would translate 'x is six feet tall' in (a) and 'x is 182.88 centimeters tall' in (c) in such a way that they are mentioned rather than used in the formal translation.

(a') Believes (Joe, Tom, C(x, 'x is six feet tall'))

(b') (x)(x is six feet tall iff x is 182.88 centimeters tall)

(c') Therefore, Believes (Joe, Tom, C(x, 'x is 182.88 centimeters tall')).
Transcribed in this way, my formal representation of the informal argument (a)-(b)-(c) is invalid. Joe may conceive of a certain length as six feet and not conceive of that length as 182.88 centimeters. My point is that I can reflect on the formal level the invalidity of (a)-(b)-(c) without denying the ambiguity in (1).

The upshot of this Section is that some de re belief sentences in ordinary language are ambiguous with respect to the predicate that occurs in the belief context. On one reading, it occurs transparently, and refers to a property. On the second reading, it occurs opaquely, and expresses how the belief state represents the property represented. Which reading an ambiguous de re belief sentence is given depends on the reporter's communicative intentions and on the belief state's mode of presentation.

5.3 THE LOGICAL FORMS OF DE RE BELIEF SENTENCES

Let us now give the logical form of ordinary language de re belief sentences following the basic schema that formal de re belief sentences exhibit a three-place belief predicate. We have argued that in ordinary language de re belief sentences, the singular terms and the predicates which occur in the belief context can occur either transparently or opaquely. So, if we take
(6) S believes (de re) that Fa
to be our initial ambiguous ordinary language de re belief
sentence, we need to determine all the possible formaliza-
tions of (6).

Case 1. Someone might say (6) asserting a relation-
ship between S, the object a, and the property F. In this
case, the speaker does not intend to say how S conceives
a or the property F. Consequently, 'a' and 'x is F' occur
transparently in (6). When (6) is so stated, the logical
form of (6) is

Believes (S, a, x is F).

Case 2. Someone might say (6) not only asserting
a belief relation between S, a and the property F, but
also with the intention of expressing how S conceives or
picks out a. In this case, 'a' in (6) not only refers to
a, it expresses how S conceives a. When 'a' in (6) has
this role, 'a' occurs opaquely. If (6) is so stated, the
logical form of (6) is

Believes (S, a, C(x, 'x is a') & x is F),
where 'C(x, '____')' abbreviates 'x has the property the
believer conceives in a way expressible by '____''.

This case illustrates the reasons why I introduced
the predicate 'C' in the previous section. Quine thought
that all predicates occurring in the belief context of a
de re belief sentence occurred opaquely; consequently,
in Quine's formal analysis, the third argument place
always contains a mentioned predicate, e.g.,

Believes (S, a, 'x is F and x is G').

But if in the informal de re belief sentence, 'x is F' occurs opaquely and 'x is G' occurs transparently, we cannot simply join a used and a mentioned predicate, e.g.,

Believes (S, a, 'x is F' and x is G)

because of the resulting use/mention confusion of 'x'.

Likewise,

Believes (S, a, 'x is a' and x is F)

would exhibit the same use/mention confusion. So, there are two reasons why I introduced the two-place predicate 'C': first, to avoid any use/mention confusion of 'x', and second, to have a place in the formal translation where an opaquely occurring predicate can be mentioned.

Case 3. Someone might say (6) not only asserting a relation between S, a and the property F, but also with the intention of specifying how S conceives of the property F. In this case, 'x is F' in (6) expresses how S conceives of the property F, and occurs opaquely. When (6) is so stated, the logical form of (6) is

Believes (S, a, C(x, 'x is F')).

Case 4. Finally, the speaker might want to assert not only a relation between S, a, and the property F, but also express how S picks out a and how S conceives of the property F. When (6) is so stated, the logical form of (6) is
Believes (S, a, C(x, 'x is a') & C(x, 'x is F')).

In this last case, I write 'C(x, 'x is a') & C(x, 'x is F')' rather than 'C(x, 'x is a and x is F')' because someone may ascribe to an object two different properties conceived in different ways without ascribing to that object a property conceived in a way expressible by the joining of the two predicates which express the modes of conceiving the original two properties. For example, suppose I attribute to Ortcutt the property I conceive in a way expressible by 'is not a spy', and attribute to the man I saw on the beach, who unbeknownst to me is Ortcutt, the property I conceive in a way expressible by 'is a spy'. In this case, we would not go on to infer that I attribute to Ortcutt (=the man I saw on the beach) a property I conceive in a way expressible by 'x is a spy and isn't a spy'. Therefore, if two or more predicates express how a believer conceives two or more properties, the predicates should not be joined together into a single complex predicate in the formal translation, but should be kept separate.

These four cases, however, are incomplete. They give the logical form only of ordinary language de re belief sentences in which the belief context contains one singular term and one predicate. Some ordinary language de re belief sentences are more complex.
To illustrate de re belief sentences containing more than one singular term in the belief context, consider

(7) John and Mary are such that Ralph believes that John is the husband of Mary,

and

(8) \(a, b,\) and \(c\) are such that \(S\) believes that \(a\) is between \(b\) and \(c\).

To translate these into formal sentences, we need to place the singular terms denoting the objects the belief is about in a sequence. A sequence is needed because the order of the terms is important. Ralph believes that John is the husband of Mary; he does not believe that Mary is the husband of John. Following the usual conventions, I use pointed brackets for sequences. Thus, the logical form of (7) is either

\[\text{Believes (Ralph, } [\text{John, Mary}], \text{ is is the husband of } y),\]

or

\[\text{Believes (Ralph, } [\text{John, Mary}], C([x, y]), \text{ 'x is the husband of y'},\]

depending on whether 'x is the husband of y' in (7) occurs transparently or opaquely. (8) has the logical form of either

\[\text{Believes (S, } [a,b,c], \text{ x is between y and z}),\]

or

\[\text{Believes (S, } [a,b,c], C([x,y,z], 'x is between y and z'))\]
depending on whether 'x is between y and z' in (8) occurs transparently oropaquely.

I follow the convention that the left to right order of the first occurrences of the free variables in the third argument place correspond to the left to right order of the singular terms in the sequence in the second argument place. Also, in each of the C-relations, the left to right order of the first occurrences of the free variables in the predicate being mentioned correspond to the left to right order of the free variables in the sequence the predicate is C-related to. Finally, since we do not intend to be attributing to the believer a belief of a sequence, but rather the objects in the sequence, 'Believes' together with the pointed brackets represents 'believes of'.

To illustrate de re belief sentences containing more than one predicate in the belief context, consider

(9) Joe believes of Tom that he is smart and tall, and

(10) John and Mary are such that Ralph believes that John is the husband of Mary and Mary is younger than John.

To translate (9) and (10) into formal sentences, we need to place the predicates in the belief context in a sequence. Thus, (9) translates into either
(11) Believes (Joe, \{Tom\}, \{x is smart, x is tall\}),

or

(12) Believes (Joe, \{Tom\}, \{C(\{x\}, 'x is smart'), C(\{x\}, 'x is tall')\}),

depending on whether 'x is smart' and 'x is tall' in (9) occur transparently or opaquely. (10) translates into either

(13) Believes (Joe, \{John, Mary\}, \{x is the husband of y, y is younger than x\}),

or

(14) Believes (Joe, \{John, Mary\}, \{C(\{x,y\}, 'x is the husband of y'), C(\{y, x\}, 'y is younger than x')\}),

depending on whether 'x is the husband of y' and 'y is younger than x' in (10) occur transparently or opaquely.

We must introduce an ordered sequence in the third argument place rather than a mere set because the order of the predicates is important. For example, if we switched the order of the predicates in (13), we would get

(15) Believes (Joe, \{John, Mary\}, \{y is younger than x, x is the husband of y\}),

but (15) is the formal translation of the English sentence 'John and Mary are such that Ralph believes that John is younger than Mary and Mary is the husband of John'. We get a similar result if we switch the order of the predicates in the third argument place in (14). So, given that the sequence in the second argument place is in a certain order, and that the left to right order of
the first occurrences of the free variables in the third argument place correspond to the left to right order of the singular terms in the second argument place, the predicates in the third argument place must also be in a certain order in order to guarantee that the formal sentence accurately translates the informal sentence.

We shall now go through the four cases again. Consider ordinary language de re belief sentences which look something like this:

(16) \( S \) believes (de re) that \( a_1, a_2, \ldots, a_n \) are \( F_{\lambda} \)-related, \( F_2 \)-related, \ldots, \( F_m \)-related.

In Case 1, the singular terms and the predicates occurring in the belief context occur transparently. If so, the logical form of (16) is

\[
\text{Believes} \ (S, \{a_1, a_2, \ldots, a_n\}, \{F_{\lambda}^n(x_1, x_2, \ldots, x_n), \ldots, F_m^n(x_1, x_2, \ldots, x_n)\}),
\]

where '\( a \)' with numerical subscripts is a list of individual constants, 'x' with numerical subscripts is a list of individual variables, and '\( F^n \)' with numerical subscripts is a list of n-place predicate letters, \( n \geq 1 \). Note that \( m \) need not equal \( n \). We can have more or less predicate letters in the third argument place than individual constants in the second. (11) is an example.

Also, since the second or later occurrences of free
variables in the third argument place can occur in any order, my writing the second and later occurrences of the free variables in their alphabetic order is merely for ease in presentation, and has no formal significance.

Finally, since we do not intend to be attributing to the believer a belief which attributes a sequence of relations to certain objects, but rather certain relations to those objects, 'Believes' together with the pointed brackets in both the second and third argument place represents 'believes of'.

In Case 2, the singular terms which denote the objects the belief is about occur opaquely, and the predicates occur transparently. In this case, the formal translation of (16) is

\[
\text{Believes}(S, \langle a_1, a_2, \ldots, a_n \rangle, \langle C(\langle x_1 \rangle, 'x is a'), C(\langle x_2 \rangle, 'x is a_2'), \ldots, C(\langle x_n \rangle, 'x is a_n') \rangle, F_1^n(x_1, x_2, \ldots, x_n), F_2^n(x_1, x_2, \ldots, x_n), \ldots,
\]

\[
F_m^n(x_1, x_2, \ldots, x_n)).
\]

This symbolism can translate an informal de re belief sentence in which some of the singular terms occurring in the belief context occur opaquely and others occur transparently. For any 'a_i', if 'a_i' occurs transparently in the belief context of (16), then 'C(\langle x_i \rangle, 'x is a_i')' is not contained in the third argument place. If 'a_i' occurs opaquely, then 'C(\langle x_i \rangle, 'x is a_i')' is contained in the third argument place.
In Case 3, the singular terms occurring in the belief context occur transparently, but the predicates occur opaquely. In this case, the formal translation of (16) is

\[
\text{Believes (S, } \langle a_1, a_2, \ldots, a_n \rangle, \langle C(\langle x_1, x_2, \ldots, x_n \rangle, 'F_1^n(x_1, x_2, \ldots, x_n)'), C(\langle x_1, x_2, \ldots, x_n \rangle, 'F_2^n(x_1, x_2, \ldots, x_n)'), \ldots, C(\langle x_1, x_2, \ldots, x_n \rangle, 'F_m^n(x_1, x_2, \ldots, x_n)') \rangle).
\]

This symbolism can translate informal sentences in which some of the predicates occur opaquely and others occur transparently. For any predicate occurring in the belief context of an ordinary language de re belief sentence, if it occurs opaquely, it is placed in the formal translation inside quotation marks as the second term of a C-relation. If the predicate occurs transparently, the predicate itself is placed in the sequence in the third argument place.

In Case 4, both the singular terms and the predicates in the belief context occur opaquely. In this case, the logical form of (16) is

\[
\text{Believes (S, } \langle a_1, a_2, \ldots, a_n \rangle, \langle C(\langle x_1 \rangle, 'x is a_1'), C(\langle x_2 \rangle, 'x is a_2'), \ldots, C(\langle x_n \rangle, 'x is a_n') \rangle, C(\langle x_1, x_2, \ldots, x_n \rangle, 'F_1^n(x_1, x_2, \ldots, x_n)'), C(\langle x_1, x_2, \ldots, x_n \rangle, 'F_2^n(x_1, x_2, \ldots, x_n)'), \ldots, C(\langle x_1, x_2, \ldots, x_n \rangle, 'F_m^n(x_1, x_2, \ldots, x_n)') \rangle).
\]
The significance of this analysis of ordinary language de re belief sentences is that it is more general than either Quine's original analysis or Quine's original analysis plus Loar's amendment. Consider again our simpler de re belief sentence

(6) S believes (de re) that Fa.

Quine thought that 'a' in the belief context of (6) always occurred transparently, and that 'x is F' always occurred opaquely. He analyzed (6) as

(17) Believes (S, a, 'x is F').

(17) is basically equivalent to our third case:

Believes (S, ⟨a⟩, C⟨x⟩, 'x is F' ).

Loar argued that in some cases, 'a' in (6) occurs opaquely. Like Quine, Loar assumes that 'x is F' always occurs opaquely. So, Loar adds

(18) Believes (S, a, 'x is a and x is F')

to the original Quinean analysis. (18) is basically equivalent to our fourth case:

Believes (S, ⟨a⟩, C⟨x⟩, 'x is a'), C⟨x⟩, 'x is F' ).

My point is that I am the first to argue that cases one and two are needed to formalize ordinary language de re belief sentences, and that Quine's and Loar's analysis become special cases of my analysis. My analysis is more general.
5.4 THE TRUTH-CONDITIONS OF DE RE BELIEF SENTENCES

In this Section, I want to give the conditions under which formal de re belief sentences are true. For each of the four possible forms a formal de re belief sentence might have, I shall specify what the world has to be like for a sentence of that form to be true.

For each of the four possible forms of a formal de re belief sentence, the sentence specifying its truth-conditions will be with modifications an instance of Tarski's (T) schema:

\[(T) \text{ } S \text{ } \text{is true} \iff q \]

where 'S' is replaced by a name of the sentence whose truth-conditions are being stated, and 'q' is replaced by a sentence, however complex, which describes what the world has to be like for the sentence named in the left-hand side to be true.\(^5\) Instances of the (T) schema occur in a metalanguage, which shall be English.

In Chapter 3, Section 3, I gave the conditions under which someone has a de re belief. I argued that whether a belief is de re or not depends in part on the context; in particular, I argued that someone has a de re belief about an object x only if he has a sufficiently informative belief about x. What counts as sufficiently informative is a context-dependent matter; it depends on the interests and purposes of the person who is reporting
the belief and of the reporter's audience. The conditions under which a formal de re belief sentence is true shall be stated relative to a standard for being sufficiently informative. As a preliminary statement, sentences giving the truth-conditions of formal de re belief sentences shall be an instances of the schema

\[ S \text{ (std)} \text{ is true iff } q \]

where 'S' is replaced by a name of a formal de re belief sentence, and 'std' is replaced by a name of a standard for a belief being sufficiently informative. The idea of this last schema is that a formal de re belief sentence, given a certain standard for a belief being sufficiently informative, is true if and only if certain conditions, which include the satisfaction of that standard, obtain.

We need to state the truth-conditions for de re belief sentences relative to more than just a standard for being sufficiently informative. Belief states are internal representations, and what a belief state represents may depend in part on the time and place. For example, a de re belief with a content expressible by 'Joe left an hour ago' represents Joe as leaving at different times on different occasions, and a de re belief with a content expressible by 'Tom is here' represents Tom as being in different locations when the believer is in different locations. Therefore, as a
final statement, sentences giving the truth-conditions of formal de re belief sentences shall be instances of the schema

\[ S(\text{std}, t, p) \text{ is true iff } q \]

where 't' is replaced by a name of a period or moment of time, and 'p' is replaced by a name of a location.

I now want to go through the four forms of de re belief sentences, and give their truth-conditions.

In Case 1, the formal belief sentence does not specify the described belief's content. It tells us what objects and properties the belief represents; it does not tell us how these objects and properties are represented.

'Believes \( S, \langle a_1, a_2, \ldots, a_n \rangle, \langle F^n_1(x_1, x_2, \ldots, x_n), F^n_2(x_1, x_2, \ldots, x_n), \ldots, F^n_m(x_1, x_2, \ldots, x_n) \rangle \)'

\( \text{std}, t, p \) is true if and only if \( S \) has an internal state \( m \) such that at time \( t \) in place \( p \),

1. \( m \) has a content \( C \),
2. \( m \) plays role \( B \) for \( S \),
3. \( (\exists x_1)(\exists x_2) \ldots (\exists x_n)(\exists F^1_1)(\exists F^2_2) \ldots (\exists F^n_m) \)
   \( m \) represents \( x_1, x_2, \ldots, x_n \) as being \( F^n_1 \)-related, \( F^n_2 \)-related, \ldots, \( F^n_m \)-related for \( S \),
   \& \( x_1 = a_1, x_2 = a_2, \ldots, x_n = a_n \),
4. (a) (i) \( S \) is experiencing \( a_1, a_2, \ldots, a_n \) at \( t \), and either \( S \)'s experience of \( a_1, a_2, \ldots, a_n \) at \( t \) caused \( m \) to represent \( a_1, a_2, \ldots, a_n \), or \( S \) believes that his belief state \( m \) and
his current experience represent the same objects,

or(ii) S experienced $a_1, a_2, \ldots, a_n$ at $t'$, $t' < t$, this past experience is retrievable from memory by S at $t$, and S believes that his belief state $m$ and his past experience represent the same objects,

$\delta$(b) (i) $m$ has a content expressible by a true statement which is sufficiently informative according to the standard for being sufficiently informative, and belief state $m$ is justified at least in part by S's experience of $a_1, a_2, \ldots, a_n$,

or(ii) S has at least one internal state $m'$, $m', m \in K$, such that

1. $m'$ has a content expressible by a true statement which is sufficiently informative according to the standard for being sufficiently informative,

2. $m'$ plays role B for S,

3. $(\exists x_1)(\exists x_2) \ldots (\exists x_n)(\exists F^n_1)(\exists F^n_2) \ldots (\exists F^n_m)(m' \text{ represents } x_1, x_2, \ldots, x_n \text{ as being } F^n_1 \text{-related, }$ $F^n_2 \text{-related, } \ldots, F^n_m \text{-related for S, }$ $\& x_1=a_1, x_2=a_2, \ldots, x_n=a_n),$

$\delta$(4) $m'$ is justified at least in part by S's experience of $a_1, a_2, \ldots, a_n$, where $K$ is a cluster with $a_1, a_2, \ldots, a_n$ as some of its objects.
In Case 2, the formal de re belief sentence represents how the believer picks out the objects his belief is about, but it does not represent how he conceives of the properties he ascribes to those objects.

'Believes (S, ⟨a₁, a₂, . . . , aₙ⟩, ⟨C(⟨x₁⟩), 'x is a₁''), C(⟨x₂⟩), 'x is a₂''), . . . , C(⟨xₙ⟩), 'x is aₙ''), F₁(x₁, x₂, . . . , xₙ), F₂(x₁, x₂, . . . , xₙ), . . . , Fⁿₘ(x₁, x₂, . . . , xₙ))' (std, t, p) is true if and only if S has an internal state m such that at time t in place p

1. m has a content expressible in part by 'a₁', 'a₂', . . . , 'aₙ',
2. m plays role B for S,
3. (∃x₁)(∃x₂) . . . (∃xₙ)(∃F¹)(∃F²) . . . (∃Fⁿ)
   (m represents x₁, x₂, . . . , xₙ as being F₁-related, F₂-related, . . . , Fⁿ-related for S, & x₁ = a₁, x₂ = a₂, . . . , xₙ = aₙ),
4. m and a₁, a₂, . . . , aₙ are causally connected in an appropriate way.

Here and in the following two cases, 'm and a₁, a₂, . . . , aₙ are causally connected in an appropriate way' abbreviates the complete fourth condition as it appears in the truth-conditions for Case 1.

In Case 3, the formal de re belief sentence identifies the objects the agent's de re belief is about without specifying how the believer conceives of those objects, and the formal de re belief sentence represents how the believer conceives the properties he ascribes to
the objects his belief is about.

'Believes \( S, \langle a_1, a_2, \ldots, a_n \rangle, \langle C(\langle x_1, x_2, \ldots, x_n \rangle), \rangle^n_1(x_1, x_2, \ldots, x_n'), C(\langle x_1, x_2, \ldots, x_n \rangle), \rangle^n_2(x_1, x_2, \ldots, x_n'), \ldots, C(\langle x_1, x_2, \ldots, x_n \rangle), \rangle^n_m(x_1, x_2, \ldots, x_n') \rangle')

\((\text{std}, t, p)\) is true if and only if \( S \) has an internal state \( m \) such that at time \( t \) in place \( p \)

1. \( m \) has a content expressible in part by

\( '\rangle^n_1(x_1, x_2, \ldots, x_n'), '\rangle^n_2(x_1, x_2, \ldots, x_n'), \ldots, '\rangle^n_m(x_1, x_2, \ldots, x_n)' \)

2. \( m \) plays role \( B \) for \( S \),

3. \( (\exists x_1)(\exists x_2) \ldots (\exists x_n)(\exists \rangle^n_1)(\exists \rangle^n_2) \ldots (\exists \rangle^n_m) \)

\((m \text{ represents } x_1, x_2, \ldots, x_n \text{ as being }\rangle^n_1\text{-related, }\rangle^n_2\text{-related, }\ldots, \rangle^n_m\text{-related for } S, \& x_1=a_1, x_2=a_2, \ldots, x_n=a_n)\),

\&(4) \( m \) and \( a_1, a_2, \ldots, a_n \) are causally connected in an appropriate way.

In Case 4, the formal de re belief sentence specifies how the believer conceives of the objects and properties his belief represents.

'Believes \( S, \langle a_1, a_2, \ldots, a_n \rangle, \langle C(\langle x_1, 'x \text{ is } a_1'), C(\langle x_2, 'x \text{ is } a_2'), \ldots, C(\langle x_n, 'x \text{ is } a_n') \rangle, \rangle^n_1(x_1, x_2, \ldots, x_n'), C(\langle x_1, x_2, \ldots, x_n \rangle), \rangle^n_2(x_1, x_2, \ldots, x_n'), \ldots, C(\langle x_1, x_2, \ldots, x_n \rangle), \rangle^n_m(x_1, x_2, \ldots, x_n') \rangle')

\((\text{std}, t, p)\) is true if and only if \( S \) has an internal state \( m \) such that at time \( t \) in place \( p \)

1. \( m \) has a content expressible by \( 'a_1, a_2, \ldots, a_n \) are \( \rangle^n_1\text{-related, }\rangle^n_2\text{-related, }\ldots, \rangle^n_m\text{-related}'
(2) \( m \) plays role B for S,

(3) \((\exists x_1)(\exists x_2) \ldots (\exists x_n)(F^n_1)(F^n_2) \ldots (F^n_m)\)

(\(m\) represents \(x_1, x_2, \ldots, x_n\) as being \(F^n_1\)-related, \(F^n_2\)-related, \ldots, \(F^n_m\)-related for S, \& \(x_1 = a_1, x_2 = a_2, \ldots, x_n = a_n\)),

(4) \(m\) and \(a_1, a_2, \ldots, a_n\) are causally connected in an appropriate way.
FOOTNOTES


4 Stich, p. 20.

CONCLUSION

In this dissertation, I presented a theory of belief and a theory of de re belief. I defined beliefs in terms of internal states which have a representative content, play a certain functional role, and which sometimes represent existing objects as having certain properties. I defined de re beliefs as beliefs which represent existing objects which the believer has experienced and has a sufficient amount of information about. Unlike previous formulations of the acquaintance/causal hypothesis, my formulation is fitted into a general theory of belief, and the details of the hypothesis are worked out.

I also exposed an ambiguity in ordinary language de re belief sentences which had not previously been noticed. Predicates occurring in the belief contexts of de re belief sentences are ambiguous between transparent and opaque readings. Transparently occurring predicates denote the property the believer attributes to the object the belief is about. An opaquey occurring predicate expresses how the believer conceives the property he attributes to the object the belief is about. I provided formalizations of de re belief sentences using the Quinean three-place de re belief predicate. The result was a
statement of the logical form of de re belief sentences more general than either Quine's original analysis or Quine's analysis as amended by Brian Loar. I concluded by stating the truth-conditions of belief sentences of each of the possible forms a de re belief sentence might have. The conditions were taken from my analysis of the conditions under which someone has a de re belief.
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