USE OF THESES

PROPOSITIONS AND MEANING

A STUDY OF DENOTATIONIST THEORIES OF LOGICAL MEANING.

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Contents

This thesis is entirely original work of the author, Kenneth Graham Pont.

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<u>Synopsis.</u>

This thesis is partly an historical and partly a critical study of the philosophical view that propositions (argument components or logical meanings) are in some sense "objects" denoted by sentences. The author confines his attention to theories developed during a revolutionary period in the history of logic - between the publication of Mill's <u>A System of Logic</u> and that of <u>Principia Mathe-matica</u> by Russell and Whitehead. Starting from Mill, the author traces the development of denotationist theories in the writings of Brentano, Meinong, Frege, and early Moore and Russell. Broadly speaking, the views discussed represent two distinct theories of the proposition. Firstly, there is the theory that propositions, in the sense of meaning-objects denoted by sentences, are ident-ical with or can be reduced to objects denoted by words and non-sentential phrases. This theory, the author argues, can be found in Mill and early Frege, and is most explicitly stated by Brentano. Secondly, there is the theory that the meaning-objects denoted by indicative sentences are fundamentally different from the objects denoted by words and phrases, and that propositions there-fore form a distinctive class of <u>denotata.</u> This view is represented in the writings of later Frege, Meinong and early Russell.

In the first chapter, the author discusses theories of the proposition suggested by Mill and early Frege. Firstly, he tries to bring out the conflicting strands in Mill's thought, by contrasting Mill's "official" non-denotationist theory of propositions with other denotationist doctrines suggested in the Logic. Secondly, the author outlines Frege's early theory of meaning, and discusses some of the difficulties that lead Frege to modify his early denotationist assumptions.

The second chapter of the thesis begins with an exposition of Brentano's "intentional" theory of mental acts and objects, and then goes on to show how Brentano uses this theory in an attempt to explain the meaning of propositions "from the empirical standpoint". The author emphasises Brentano's debt to Mill, and his influence on Meinong.

In the third chapter, the author turns to consider the view that sentences have meaning by standing in some relation to non-empirical, metaphysical objects that are quite distinct from the objects denoted by names, words, referring expressions, etc. In the first part of the chapter he shows how Frege resorts to a metaphysical

theory of meaning-objects, having rejected psychologistic,
empiricist, and formalist theories of meaning. The author's
main point here is that Frege's theory of sense and, in
particular, his theory of thoughts is really a tentative
sketch of a metaphysical theory of meaning, and, as
such, can be fruitfully compared with Meinong's theory of
objects. In the second part of this chapter, the author
shows how Meinong, starting from the Brentanian notion
of mental intentionality, develops his elaborate and orig-
inal Gegenstandstheorie, a general theory of non-empirical
meaning-objects.

The author devotes the fourth chapter to a detailed
study of Frege's sense and reference argument, and offers
what he believes to be an original analysis and criticism
of Frege's proof that referring expressions must have
at least a sense, if not also a reference. Frege's argu-
ment is shown to be invalid, and its weaknesses located in
denotationist assumptions that Frege retains from his
early theory of meaning. In the final part of this chapter,
the author attempts to restate the distinction between
sense and reference in more defensible terms.

In the final chapter, the author traces the develop-
ment of Russell's theory of Being in The Principles of

Mathematics, and then shows how Russell came to reject the denotationist assumptions of this theory, and to develop an alternative non-denotationist account of meaning in the theory of incomplete symbols.

CHAPTER 1

Denotationism in Mill and early Frege.

I Mill's Theory of Propositions.

For this study of denotationist theories of meaning, the Logic of J.S. Mill forms a convenient, if not necessary starting point. Generally speaking, this work has proved an important source of recent philosophy of logic, and during the last hundred years has exercised an enormous influence on philosophers and logicians interested in this subject. More particularly, Mill's theory of propositions and their meaning, as set out in the Logic, very largely determines the line of inquiry undertaken by the chief figures in this study - Brentano, Meinong, and Frege. Their doctrines, I shall argue, are frequently developed from views suggested by Mill, and should be examined, therefore, against the background of Mill's thought.

Logic, according to Mill, is "the Theory of Proof",[1] and aims to "distinguish between things proved and things not proved".[2] That which can be proved or not proved, Mill calls a "proposition" or "assertion",[3] and "...nothing but a Proposition", he says, "can be an object of belief, or therefore of proof".[4] For Mill, inferences,

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1. See Logic, Introduction, section 2; I.III.1; II.I.1
2. Ibid., I.I.1.   3. Ibid., I.I.2, p.12
4. Ibid., I.III.1

proofs, arguments, necessarily involve propositions or
assertions, and the logical study of the former calls
for a preliminary study of the latter. But despite
the fact that Mill devotes the entire first Book of the
Logic to an analysis of propositions and their constit-
uent names, his actual answer to the question, What
are propositions? is far from clear.

The exposition of Mill's theory of propositions
and assertions is very confused, and it may be easier
to explain his view by first saying what it is not. In
discussing propositions, Mill does not explicitly state
the distinction, frequently drawn by later logicians,
between arguments and their components on the one hand,
and the language in which those arguments and their com-
pounds might be expressed, on the other. This distinct-
ion has been developed in various ways by text-writers
on logic. Johnson,[1] Eaton,[2] Cohen and Nagel[3] and Copi[4]
for example, contrast propositions with the sentences
by which propositions are expressed, arguing that pro-
positions rather than sentences are the proper subject
of logical study: propositions - but not sentences - can
be true and false, believed and disbelieved, and only

1. Logic, Part I, p.2   2. General Logic, p.12
3. An Introduction to Logic and Scientific Method, p.27
4. Symbolic Logic, p. 3

propositions can enter various logical relations to form arguments, proofs, implications, etc.[1] According to this view, a sentence is merely a verbal form which is normally used to convey a proposition, statement, or assertion, but has no necessary connection with the proposition it expresses, because the same proposition may be expressed by different sentences and in a variety of languages.

While Mill's remarks at times might suggest this view to a modern reader, I am inclined to think that his intended theory of propositions is quite unlike that outlined above. Consider Mill's introductory statement on this subject:

"The answer to every question which it is possible to frame, must be contained in a Proposition, or Assertion. Whatever can be an object of belief, or even of disbelief, must, when put into words, assume the form of a proposition. All truth and all error lie in propositions... the objects of all Belief and of all Inquiry express themselves in propositions".[2]

In interpreting this passage, it is difficult to say what meaning should be attached to the vague

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1. Compare Eaton, op.cit., p.27; Cohen and Nagel, op cit., p.27; F.B. Fitch: Symbolic Logic, pp.5ff.
2. Logic, I.I.2, p.12. Compare I.IV.1., p.49

metaphorical statements that an object of belief, a truth or an error "lies in", is "contained in", and "assumes the form of" a proposition or assertion. Mill could be presupposing here a contrast between a proposition, in the sense of a subject-predicate sentence, and the questions, objects of belief, truths, errors, etc. which might enter into some relation with the proposition-sentence. In this case, the metaphors of "lying in", "being contained in", and "assuming the form of" would have to be understood as referring to some sort of relation between two distinct things: the proposition-sentence and the object of belief, etc. it expresses.

Generally speaking however, Mill ignores this sort of distinction, and speaks as if a proposition or assertion is at the same time something true or false and something expressed in a verbal form, both an object of belief and something consisting of two names linked by a copula. In explaining what he means by a "proposition", Mill says that "a proposition... is formed by putting together two names" and that "every proposition ... consists of at least two names" brought together "in a particular manner".[1] But he also speaks of a proposi-

1. Logic, I.I.2, p.12.

tion as "what is believed"[1] and as "discourse in which something is affirmed or denied of something".[2] Furthermore he says that "what...we call a Truth, means simply a True Proposition".[3] These statements seem to suggest that for Mill, propositions are more than mere combinations of names, considered apart from their meaning or import; that propositions are sentences-with-import, or, to use Strawson's terminology, sentences in use as statements.[4]

So when Mill says that "a proposition... is formed by putting together two names", he seems to mean that when we join together a subject-expression and a predicate-expression by means of a copula, we get not an assertion-sentence, but a complete assertion; that is, not just something that could be used to make a statement, but an actual statement with, presumably, a truth-value. In other words, Mill seems to think that an assertion or statement is made by putting together a series of separately significant symbols, that is, by joining together at least two names each of which carries with it its own particular meaning or import. As Britton says: "Mill writes as if words had their meanings independently of

1. Logic, I.V.1, p.55   2. ibid., I.I.2, p.12
3. ibid., I.I.2, p.12   4. Compare Introduction to
Logical Theory, pp.3-5

each other and of the context of utterance: as if dis-
course consisted in putting together words in a certain
order, very much as bricks are put together in a wall".[1]
According to this interpretation, Mill's proposition
should be regarded as something having both logical and
linguistic properties: as having, for example, various
logical powers, and the linguistic form of subject-
copula-predicate.

If this is Mill's theory of propositions, then
I should not call Mill a "denotationist". According to
what I shall call a "denotationist" theory of assertion,
propositions are the _denotata_ of, among other things,
indicative or assertive sentences. According to this def-
inition, any denotationist theory - regardless of indiv-
idual refinements - will necessarily presuppose some
distinction between propositions and the linguistic
items, most usually indicative sentences, by which pro-
positions are denoted, expressed, conveyed, etc. Ob-
viously Mill is not proposing a denotationist theory of
logical meaning if he does not recognise the linguistic
sentence/logical proposition distinction, if, instead,
he ascribes linguistic and logical properties to one and

1. _John Stuart Mill_, p.114

the same thing - the proposition-sentence. Furthermore, it should be noted that Mill is not being a "denotation-ist" in the sense employed in this essay, when he discusses the denoting and connoting functions of words and descriptive phrases.[1] In this latter theory, the various "parts" of propositions or proposition-sentences perform denoting functions, whereas in what I call a "denotation-ist" theory of logical meaning, propositions are themselves denoted by various linguistic expressions, in particular, by subject-predicate sentences.

Although Mill never explicitly proposes a denot-ationist theory of propositions, one can, nevertheless, find traces of denotationist thinking in the Logic; and these, I suggest, help to obscure the fact that if Mill's theory of the proposition is interpreted strictly, in a non-denotationist way, then it is obviously implausible and quite inadequate as a comprehensive theory of asser-tion. Consider again this statement of the theory:

"...whatever can be an object of belief, or even of disbelief, must...assume the form of a proposition. All truth and all error lie in propositions...the objects of all Belief and of all Inquiry express themselves in

1. See Logic, I.II.5

propositions".[1] When reading this statement, we must
remember that for Mill, "a proposition...is formed by
putting together two names", and that "every proposition
...consists of at least two names" brought together "in
a particular manner".[2]

As these quotations show, Mill's theory of pro-
positions turns on the assumption that anything which
can be either true or false must be expressed as a propos-
ition, that is, as something consisting of "at least two
names". But this assumption is obviously false: proposi-
tions consisting of two names, or subject-predicate sen-
tences are not the only possible means of expressing
assertions; or, to put the same point in another way,
subject-predicate sentences are not the only vehicles of
truth-claims. It is true that Mill's examples of pro-
positions are all expressed as sentences from ordinary
language, such as "Franklin was not born in England",[3]
"fire burns",[4] and "John Nokes, who was Lord Mayor of the
town, died yesterday";[5] but even though many, perhaps
most assertions find expression in such sentences, it is
nevertheless an obvious and well-known fact that answers

1. Logic, I.I.2, p.12   2. loc. cit.
3. Logic, I.I.2, p.12   4. ibid., I.IV.1. p.49
5. ibid., I.II.2, p.16

to questions, objects of belief, truths and falsities, etc. can be expressed by a variety of non-sentential, and even non-verbal symbols, both conventional and arbitrary.[1]

Firstly, it has often been noted that people sometimes use syntactically incomplete phrases and even single words to express an answer to a question, and something which can be true or false. For example:

A: "Where are you going tonight?"

B: "To the concert".

A: "When will you be home?"

B: "Late".

Secondly, it is a familiar fact that answers to questions and objects of belief can be expressed by means other than words, sentences, and phrases of natural language; and this would count especially against Mill's claim that "the objects of all Belief and of all Inquiry express themselves in propositions". As a result of custom, stipulation, special agreement, etc., any of an indefinite variety of publicly observable objects and events can be used alternatively to ordinary language as a mode of expressing an assertion or object of belief. Questions can

1. Compare B. Bosanquet: The Essentials of Logic, pp.85-87; L.S. Stebbing: A Modern Introduction to Logic, p.33; B. Russell: An Inquiry into Meaning and Truth, p.178.

be asked by semaphore signals; and true or false answers,
accurate or misleading information can be sent in reply
by the same method of communication. Through local custom
or private arrangement too, a stone placed on top of a
fence-post might be understood by country people to convey
the assertion that it is one mile to the Jones' homestead,
or that a rabbit trap is set nearby, or that one can only
of milk is required.

Similarly, through special agreement, the light-
ing of a fire, the releasing of a balloon, the firing of
a shot could all be given an arbitrary meaning, and this
might be an assertion. The fact that the assertion is
conveyed by such arbitrary signals rather than by the use
of ordinary English makes it less common or natural per-
haps, but no less pertinent to ask whether the assertion
so conveyed is true or false. Mill might argue that
these signals are merely shorthand alternatives to the
assertion-sentences of ordinary language. But even if
this were true, my criticism would still stand, for in
such signals we find objects of belief that are not "con-
tained in" what Mill calls "propositions".

Mill is mistaken, then, in arguing as if all
statements or assertions are expressed in the form of

subject-predicate sentences. The truth of the matter is
that there is no regular correlation or necessary connec-
tion between any member of the class of subject-predicate
sentences and any member of the class of symbols used to
express statements, assertions , etc. According to Mill's
argument, the former of these classes should include the
latter, whereas the relation in fact is one of class-
intersection.[1]

But if it is obviously false that "the objects
of all Belief and of all Inquiry express themselves in
propositions" consisting of "at least two names", why did

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1. Compare S. Hampshire: "Ideas, Propositions, Signs",
P.A.S., XL(39/40) p.18; A.H. Basson: "Logic and Fact",
Analysis, VIII(48) pp.81-82; Y. Bar-Hillel: "Dependence
of Meaning on Truth and Pragmatic Context", J.S.L.,
XVI(51) p. 237; A.E. Duncan Jones: "More Notes on Asser-
tion", Analysis, VII(40) pp.51-56, esp. p. 55; M. Black:
"Definition, Presupposition and Assertion" in American
Philosophers at Work, ed. S. Hook, pp. 50ff. For adumbra-
tions of this sort of argument see W.S. Jevons: Studies
in Deductive Logic, Preface, pp.xix-xx; John Cook Wilson:
Statement and Inference, vol.1, chapter xvii, pp.385ff.
For recognition of the point that it is impossible for a
logician to find a reliable linguistic criterion for
identifying propositions, see I.M. Copi, op. cit., p.81;
A. Ambrose and M. Lazerowitz: Fundamentals of Symbolic
Logic, p.61.

Mill (and many logicians after him) go wrong?[1]   Why

should Mill (and many other logicians) even go to the

length of _denying_ the obvious fact that assertions can be

expressed by means other than the subject-predicate sen-

tence?[2] The mistake can be explained, I suggest, by the

fact that Mill does not consistently adhere to the theory

of propositions outlined above, but lapses occasionally

into thinking of a quite different one, a denotationist

theory of assertion; and I suggest, moreover, that for

Mill the implausibility of his official, non-denotationist

theory of propositions was concealed by the plausibility

of his unofficial denotationist theory of propositions.

I do not think that Mill would have accepted a denotat-

ionist philosophy of logical meaning, had it been clearly

presented to him, but I think nevertheless that there are

many hints of denotationist thinking in Mill's discussion

of propositions.

1. See, for example, Cohen and Nagel, _op. cit._, p.28;
H. Reichenbach: _Elements of Symbolic Logic_, p.4;
M. Lazerowitz: "Meaninglessness and Conventional Use",
Analysis, V(38) pp.33-42, esp. p.39. Even logicians who
deny that logic is concerned with propositions exclusive-
ly have still held that logic is concerned with a certain
use of _sentences_. See, for example, R.M. Hare: "Impera-
tive Sentences", _Mind_, LVIII(48) pp.21ff; E.L. Beardsley:
"Imperative Sentences in relation to Indicatives", _The
Philosophical Review_, LIII (44) pp.175-185. For a recent
restatement of Mill's error see A. Church's articles on
"Proposition" and "Sentence" in Runes' _Dictionary of Phil-
osophy_, p.256, p.289.   2. See _Logic_, I.I.2, p.13.
Compare W.R. Boyce Gibson: _The Problem of Logic_, p.94;
Cohen and Nagel, _op. cit._, p.27; Reichenbach, _op. cit._,
p. 6; A.C. Ewing: "Meaninglessness", _Mind_, XLVI (37) pp.
347-364.

Fundamental to denotationism is the distinction between sentences and the proposition-meanings they denote. Mill does not usually admit this distinction, but at one point he does draw a contrast between "the thing expressed" and "the mere verbal expression".[1] This suggests, or is at least compatible with the denotationist view that the object of logical interest is "the thing expressed", the proposition-meaning, which is something quite different from its "mere verbal expression", the proposition-sentence. And this contrast could be read into a number of Mill's remarks. In saying that "the answer to every question...must be contained in a proposition..." and that "an object of belief...must...assume the form of a proposition", Mill at least suggests that the proposition is something _different_ from an answer to a question or an object of belief; that is, that the proposition is the mere verbal form which "contains" or "expresses" an object of belief. This contrast between proposition-sentences and what they express seems also implicit in Mill's asking, "What is the immediate object of belief in a Proposition? What is the matter of fact signified by it?"[2] Furthermore, Mill seems to be thinking of the proposition as a purely linguistic object when he says that parts of speech such as adverbs, which are not

1. Logic, I.V.1, p.56   2. ibid., I.V.2, p.57

names cannot "figure as one of the terms of a proposition".[1]

It might also be argued that the denotationist
contrast between propositional sentences and their propos-
ition-meanings is adumbrated in Mill's distinction between
a proposition and its import, which is implicit in the
layout of Book I: after the introductory chapter, Mill
writes "of names" in chapter II, "of the things denoted
by names" in chapter III, then "of propositions" in chap-
ter IV, and finally "of the import of propositions" in
chapter V. This arrangement forcibly suggests that Mill
is drawing a basic distinction between names and complexes
of names or propositions on the one hand, and the import
of names and composite import of propositions on the other.
At one point he contrasts "the meaning of the proposition"
with "the meaning of the names which compose it",[2] and
frequently in chapter V of Book I he speaks as if the im-
port of names or propositions is the same as their "mean-
ing" and as what is "expressed" or"signified" by them.
All this seems to assume a distinction between linguistic
items (for Mill, propositions and their constituent names)
and the import or meaning of those linguistic items, that
is, objects of belief, truths, errors, etc. There may of

1. Logic, I.II.2, p.15   2. ibid., I.V.5, p.64
3. ibid., I.V., pp.55ff.

course be other ways of explaining Mill's distinction be-
tween propositions and their import, but some such distinc-
tion is surely called for if the chapter "Of the import
of propositions" is not to be a redundant sequel to the
chapter "Of propositions".

Now if, keeping in mind the distinction between
propositions and their import, we review the argument in
Book I of the Logic, we find a serious gap in Mill's theory
of meaning. At the beginning of his "analysis of language"
in Chapter I, Mill argues that, as a logician, he must
first study the import or meaning of words as a necessary
preliminary to the study of the import or meaning of pro-
positions.[1] Mill here assumes without much argument that
just as sentences are made up from their constituent
"names", so the meanings of sentences are made up from the
meanings of their constituent names. To understand the
meaning of sentences we must first understand the meaning
of words and phrases. In the subsequent chapters of Book
I, Mill offers his theory of the denotation and connota-
tion of words and phrases, holding that "whenever...names
...have properly any meaning, the meaning resides not in
what they denote, but in what they connote"..."connotation
is what constitutes their signification".[2] But later Mill

1. Logic, I.I.1.   2. ibid., I.II.5,

comes to speak of the import or meaning of <u>propositions</u>.
Now if, in his view, to mean is to connote, then either
proposition-sentences have a connotation, or they have
"meaning" in a quite different sense of the word; and if
Mill is introducing a new sense of "meaning", then that sense
is not at all made clear. Mill's analysis of the meaning of
language is confined to discussing the denotation and connota-
tion of <u>words and phrases</u> (and I shall consider this theory
of meaning in connection with the theories of later Frege
and Meinong, in chapter 3 of this essay). But Mill tells us
virtually nothing about the way in which <u>propositions</u> have
meaning. Do propositions have connotation? Do they have de-
notation? These are questions prompted by Mill's discussion
of meaning; but, as we shall see, such questions were recog-
nised and answered not by Mill, but by later thinkers.

If we interpret the distinction between a proposi-
tion and its meaning or import in the way I have suggested,
then a further modification must be made in Mill's theory.
Strictly speaking, the expressions "true" and "false" should
be applied only to the <u>import</u> of a proposition, or proposit-
ions-sentence; that is, in Mill's language, to the object of
belief that the proposition expresses, or the answer it con-
veys to a certain question. In this case, the proposition
or assertion-sentence itself should not really be called true

or false. This point might be developed in a number
of ways, but it can conveniently be expressed in terms
of Strawson's distinction between sentences and state-
ments.[1] According to Strawson, the sentences "I am
under six foot tall" and "I am over six foot tall" are
not necessarily true or false, or inconsistent with
each other. But these sentences in certain circum-
stances can be used to make statements that I am under
six foot tall and that I am over six foot tall, and
these statements could be true or false, and could be
inconsistent with each other, if, for example, they
were made by the same person at the same time and place.
So if Mill meant by "proposition" an assertive or in-
dicative sentence, then he would be quite wrong in
speaking as he does of true and false propositions,
for only objects of belief in this case can be true or
false, and not the mere combinations of names or sen-
tences by which objects of belief are expressed or

1. See Introduction to Logical Theory, pp.3-5. A simi-
lar distinction is drawn by Hampshire in "Logical Form",
P.A.S., XLVIII (47/48) p.55. Compare Ramsey's illustra-
tion of this point, quoted by A.M. MacIver in "Some
Questions about 'Know' and 'Think'", Analysis, V (38)
pp.44-45. Curiously, Fitch makes what is virtually
the same distinction, but goes on to say that "some
sentences are true and others are false". op. cit., p.6.

signified.[1]

If Mill were to modify his views at the points
I have indicated, then, I suggest, he might naturally
develop something approaching a denotationist theory
of logical meaning. But Mill could not pursue this
line of reasoning very far without drastically revising
his conception of propositions.

Firstly, he would need to draw a clear distinc-
tion between "propositions" in the sense of subject-
predicate sentences, and "propositions" in the sense
of objects of belief or assertions capable of being true
or false and of functioning as components of arguments.
If he did this, he could then reject the false assump-
tion that any assertion "must" be expressed by a subject-
predicate sentence, and instead argue that any assert-
ion can be expressed by a subject-predicate sentence.
It is possible, I suggest, that Mill was misled into
accepting the former view, an obvious falsity, through
confusing it with the latter, an obvious truth.

1. See Logic, I.I.2, p.12; I.V.I, p.57; II.I.1, p.103.
Strawson finds similar difficulties in Russell's "Log-
ical Atomism" articles. See his critical study of
Russell's Logic and Knowledge, in Phil. Quart., VII(57)
pp.374-378, esp. p. 374. Compare H.W.B. Joseph: "What
does Mr W.E. Johnson mean by a Proposition?", Mind,
XXXVI (27) pp.448-466; XXXVII (28) pp.21-39.

Secondly, having drawn the distinction between objects of belief on the one hand, and language in which they are expressed on the other, Mill would have to work out an _intrinsic_ account of objects of belief, describing them in logical rather than linguistic terms. It is a remarkable fact that Mill hardly ever stops to ask himself what could possibly be meant by "object of belief", and he never offers anything more than an _extrinsic_ description to the effect that objects of belief are expressed as subject-predicate sentences.

However, for the development of a true denotationist theory of logical meaning, for the elaboration of the sentence/proposition distinction, and for a thoroughgoing account of propositions as logical rather than linguistic objects, we must turn to Mill's successors in philosophy of logic, Frege, Brentano, and Meinong.

II Frege's Early Theory of Meaning.

In the remainder of this chapter, I wish to outline Frege's early theory of meaning, and to illustrate in some detail how Frege deals with a characteristic problem of denotationist theories – the problem of significant expressions which lack a denotation-meaning.

Unlike Mill, Frege always has before his mind the distinction between a symbol and what it stands for; and through a careful (and at the time, rather novel) use of quotation marks, he rarely fails to observe this distinction in discussing the meaning of expressions both in mathematical and ordinary language. He frequently emphasises that the sounds or marks "1", "2", "3", etc. are of little concern to the mathematician because they are merely characters (Gebilde, Figuren) having only "physical and chemical properties depending on the writing material" with which they are written.[1] The numerals "1", "2", "3", etc. must not be confused with the objects they stand for, the numbers 1, 2, 3, etc. which possess specific mathematical properties. "A

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1. Translations from the Philosophical Writings of Gottlob Frege, by P. Geach & M. Black (hereafter referred to as Geach and Black) p.23.

mathematical expression, as a group of signs", Frege
declares, "does not belong in arithmetic at all";[1] and
he regularly invokes the distinction between "sign and
thing signified"[2] or between "form and content"[3] in
criticising formalists who try to identify numbers with
numerals, or who try to treat numbers as if they were
numerals.[4]   In the formalist theory of mathematics,
Frege objects, "we...have talk about signs that neither
have nor are meant to have any content, but nevertheless
properties are ascribed to them which are unintelligible
except as belonging to the content of a sign".[5]

Much of Frege's later philosophising about logic
and mathematics can be understood as an attempt to carry
through his early criticisms of formalism by developing
a theory of the various meaning-entities that signs can
signify; and in fact, it is the development of a sophis-
ticated theory of meaning that distinguishes Frege's
later from his early writings.

In the Begriffsschrift (1879) and Die Grundlagen
der Arithmetik (1884),[6] Frege does not yet recognise his

1. Geach and Black, p.113;   2. ibid., p.100
3. ibid., p.122   4. See Frege against the Formalists,
Geach and Black, pp.182ff; also ibid., p.100,p.113
5. Geach and Black, p.22. Compare Foundations, section 43,
pp.54-55.   6. Translated as The Foundations of Arithmet-
ic by J.L. Austin, 2nd edition 1953, herein referred to
as Foundations

famous distinction between the sense and the reference
of signs, but rather speaks as if a sign has only one
sort of meaning, which he indiscriminately calls its
"content", "sense", "meaning", or "the object" the sign
"stands for".[1] Before he develops his special definit-
ions of "Sinn" and "Bedeutung", Frege treats these ex-
pressions as synonymous with "Inhalt", and uses all three
in a broad comprehensive way to refer to whatever signs
mean or stand for. For instance, he uses the word "con-
tent" to refer to the referents of expressions like "hyd-
rogen", "carbon", "Cato", "the number 20" which can appear
as arguments in a functional expression.[2] All such re-
ferring expressions, he says "stand for" or "are proxies
for their content".[3] But Frege also treats the meaning of
an indicative sentence as a "content", which can indiffer-
ently be expressed by a sentence, or referred to by a de-
noting expression of the form "the circumstance that...",
"the proposition that..."[4] For example, the content of
the sentence "unlike poles attract each other" can
equally, in Frege's view, be expressed in a referring
way by the phrase "the circumstance that (the proposit-
ion that) unlike poles attract each other."[5]

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1. See Geach and Black, pp.1-2, pp.11-14.   2. See
Begriffsschrift, section 9, Geach and Black, pp.12ff.
3. Geach and Black, p.10.   4. ibid., p.2
5. loc. cit.

In the Begriffsschrift, Frege outlines but does not develop a general denotationist theory of meaning: except in the special case of identity statements, "names are mere proxies for their content".[1] At this stage, Frege seems quite satisfied to regard the object referred to by a naming expression as the "meaning" or "content" of that expression; but he also assumes, without much argument, that indicative sentences have a content or meaning, and this presumably is to be identified with some object for which the sentence is a proxy. In the Begriffsschrift however, Frege does not seriously investigate the nature of sentence-contents, and a formalist-minded critic would have little difficulty in showing that Frege's discussion of judgement in the Begriffsschrift is itself quite formalistic in that it is confined largely to an analysis of sentences and judgement-signs, rather than what these signs allegedly stand for. It is pretty clear that Frege's broad use of the expression "content" is a matter of theoretical convenience - it helps to simplify the exposition of his system of concept-writing.

For the sake of simplicity too, it seems, Frege leaves the notion of an assertion or "judgement-content"

1. Geach and Black, p.10

quite undefined. He merely distinguishes between "contents that are, and contents that are not, possible contents of judgement".[1] The phrases "the sun's shining", "the death of Archimedes at the capture of Syracuse" belong to the general class of "names" or denoting expressions, and they express possible contents of judgement; whereas the word "house" which also belongs to the general class of denoting expressions, expresses a content which cannot by itself become a judgement.[2] Frege offers no criteria by which we might distinguish possible contents of judgement from other contents, apparently (perhaps correctly) assuming that someone using his ideography would have no trouble in deciding which is which. The important point to note however, is that in the Begriffsschrift, Frege would like to interpret all the varieties of meaning by a simple analogy with the naming situation, where a proper name, definite description, etc. refers to a specific object, allegedly its meaning.

By implication, then, Frege answers questions posed and unanswered by Mill: Do propositions have

1. Geach and Black, p.2   2.Frege distinguishes the content of "house" from the content of "the circumstance of there being a house". See Geach and Black, footnote to p.2.

denotation and/or connotation? To these questions,
early Frege would reply that a meaningful subject-
predicate sentence has a denotation but no connotation.
To Mill this reply would be self-contradictory, because,
in his view, an expression without connotation is mean-
ingless. But for early Frege, the denotation of a
subject-predicate sentence is the meaning of the sentence,
and that meaning is some specific judgement-content.
Despite the simplicity of this answer however, the not-
ion of content-meaning in the Begriffsschrift poses cer-
tain philosophical problems, which the later Frege rec-
ognises and attempts to solve.

Firstly, Frege soon comes to doubt the value of
using "content" as a blanket-term to cover all varieties
of meaning. In particular, he soon sees that proper
names, numerals, and other denoting expressions have a
"content" that is quite unlike that possessed by func-
tional expressions and indicative sentences. Express-
ions like "Cato" and "Archimedes" refer to individuals -
the men Cato and Archimedes; and there is an obvious
sense in which the signs "Cato" and "Archimedes" can
be said to stand as "proxies" for Cato and Archimedes.
Here clearly there is a relation between a sign and what

it signifies. Less obviously, the numerals "1", "2", "3", etc. might also be said to stand for individual things, the numbers 1, 2, 3, etc. But what about the "content" or "meaning" of functional expressions and indicative sentences? Does the expression "$2.x^3+x$" refer to a content-meaning? If so, <u>what</u> is it a proxy for? The indicative sentence "Caesar conquered Gaul" has a meaning, but what sort of <u>thing</u> does it stand for? In the later essays, beginning with "Function and Concept" (1891), Frege undertakes a radical revision of the theory of meaning he had assumed in the <u>Begriffsschrift</u>. The net result of this revision is the new theory of sense and reference, which completely rejects the view - implicit but never developed in the <u>Begriffsschrift</u> - that sentences and functional expressions stand for or refer to a meaning-object in the same way as "Cato" and "Archimedes" refer to the men Cato and Archimedes. The actual details of this new theory are discussed in chapter four of this essay. The main point to be noted at this stage is that Frege eventually abandons his early view that the <u>meaning</u> of an expression is to be found in or identified with its <u>reference</u>.

Secondly, having identified the meaning or content of a sign with what it stands for, Frege soon draws the obvious conclusion that a sign which stands for nothing must be devoid of content, that is, literally meaningless. Again this theoretical problem is not canvassed during the brief exposition of the Begriffsschrift, but in the subsequent Foundations of Arithmetic, which is doctrinally related to the Begriffsschrift, Frege not only retains the early denotationist theory of meaning, but also draws its obvious conclusion. "The expression 'the largest proper fraction' has no content", he says, "since the definite article claims to refer to a definite object (which does not exist)".[1] Here Frege infers that if there exists no object answering the description "the largest proper fraction", then that description must be meaningless, or as he says, "senseless". Frege however allows the use of the concept under which this object would fall, if it existed: we may use the concept "fraction smaller than 1 and such that no fraction smaller than 1 exceeds it in magnitude", if only for the purpose of proving that there is no object which falls under this concept. In other words, Frege argues, we can use this concept

1. Foundations, p.87, footnote.

to see whether there is such a thing as the largest
proper fraction; but we cannot use this concept <u>as if</u>
<u>it were exemplified</u>, that is, unless we can show firstly,
that some object falls under the concept, and secondly,
that only one object falls under the concept. Both of
these propositions Frege maintains are false; there is
no such thing as the largest proper fraction; and so,
he concludes, "the expression 'the largest proper frac-
tion' is senseless".[1] And according to Frege's early
theory of meaning, that which is senseless is not merely
a meaningless sign; it is not a sign at all. "An empty
symbol...without some content", he argues, "...is
merely ink or print on paper...really...not a symbol at
all".[2]

One obvious consequence of this theory of meaning
is that any word or phrase regarded as "meaningless"
cannot be used at all in significant discussion. For
instance, if the expression "the largest proper frac-
tion" is not a meaningful sign then we cannot make the
statement <u>that the largest proper fraction does not</u>
<u>exist</u>; nor even <u>that there is no object answering the</u>
<u>description "the largest proper fraction"</u>. Adhering to

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1.   <u>Foundations</u>, p.88 footnote
2.   <u>ibid.</u>, p.107

his theory of meaning, Frege would presumably have to
reject these statements as incomplete, because they con-
tain the allegedly meaningless expression "the largest
proper fraction". This conclusion poses obvious diffi-
culties.

Firstly it could be objected that Frege's results
do not square with fact: the above statements about the
largest proper fraction, whether they are true or false,
are nevertheless perfectly significant and intelligible
English. A master teaching arithmetic could tell his
pupil that there is no such thing as the largest proper
fraction, and explain why. Once having understood the
reason why, the pupil could well record what he has
learnt by writing "the largest proper fraction does not
exist".

Secondly, one might argue that statements such
as the largest proper fraction does not exist are logi-
cally equivalent to a statement Frege himself wants to
make, that is, that there is no object falling under the
concept "fraction smaller than one etc....". So it
could be argued that Frege's theory of meaning puts one
in the absurd position of accepting one statement and
rejecting as incomplete or meaningless other statements

which are logically equivalent to it.

The point of such objections is that, after all, Frege's statement that there is no object falling under the concept "fraction smaller than one etc...." is just another (if mathematically more sophisticated) way of saying that the largest proper fraction does not exist. Now once he has replaced the Begriffsschrift theory of meaning with the theory of sense and reference, Frege is quite able to accept this point and use the expression "the largest proper fraction" in statements such as the largest proper fraction does not exist, without committing himself to belief in the existence of the largest proper fraction. According to the early theory of meaning, if the expression "the largest proper fraction" can be used significantly, then it must refer to an object-meaning, the largest proper fraction. Significant use of the name necessarily implies or presupposes the existence of something answering the name. But having distinguished the sense or meaning of an expression from its reference, Frege is now able to say that the expression "the largest proper fraction" has a sense, but lacks a reference, because there is no such thing as the largest proper fraction. The phrase

"the largest proper fraction" means something, but does
not refer to any object. Therefore the phrase "the
largest proper fraction" can be used quite properly in
sentences asserting the non-existence of the largest
proper fraction: the use of the phrase in the sentence
"the largest proper fraction does not exist" does not
presuppose the existence of the largest proper fraction.[1]

Now it is particularly interesting, I think, to
note that Frege does not go along wholeheartedly with
this line of reasoning, even though it is quite fully in-
dicated in "On Sense and Reference". Although the theory
outlined there enables him freely to treat referring
expressions without reference as meaningful signs, Frege
is not entirely happy to accept this freedom, and even
in his later writings he appears curiously reluctant to
admit "apparent proper names", that is, referring ex-
pressions which fail to have a reference. This reluct-
ance, I think, arises out of his feeling that names with-
out reference should not occur in language. "A logically
perfect language", says Frege, reaffirming the ideal of
the Begriffsschrift, "should satisfy the conditions,
that every expression grammatically well constructed as

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1. Compare Geach and Black, pp.61ff.

a proper name out of signs already introduced shall
in fact designate an object, and that no new sign shall
be introduced as a proper name without being secured
a reference".[1]

There is evidence, I suggest, that the theory
of sense and reference does not entirely supersede in
Frege's mind the theory of meaning assumed in the Be-
griffsschrift; for even in the later writings, we find
Frege still strongly influenced by his earlier theory
of meaning, and consequently still preoccupied with
the question of referring expressions which lack a
reference. Even in "On Sense and Reference", Frege
clearly betrays his attachment to, and perhaps his pref-
erence for the older theory, for in this article which
is chiefly devoted to developing a new theory of mean-
ing, Frege actually suggests what is in fact a way of
saving the theory of meaning he is ostensibly discard-
ing. At one point, he suggests that in a logically
perfect language, the "imperfection" of natural lang-
uage, that is, the admission of proper names without
reference, could be avoided by means of a "special
stipulation" to the effect that all such expressions

1.Geach and Black, p.70

shall designate the number nought.[1] As it stands,
Frege's suggestion is that by use of this stipulation,
all the referring expressions of his artifical lang-
uage could be assured a reference. But in the same
passage of "On Sense and Reference", there is also a
definite hint that this stipulation could equally be
used in the wider context of ordinary language, to sec-
ure a reference for expressions which would otherwise
be merely apparent proper names. Speaking generally
of "the case of a compound proper name constructed
from the expression for a concept with the help of the
singular definite article", Frege suggests that "an
expression of the kind in question must actually always
be assured of reference, by means of a special stipu-
lation, e.g., by the convention that 0 shall count as
its reference, when the concept applies to no object or
to more than one".[2]

In so many words, Frege is suggesting that re-
ferring expressions such as "the largest proper fraction"
and "the divergent infinite series"[3] do not constitute
an insoluble problem for his denotationist theory of

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1. Geach and Black, pp.70-71   2. ibid., pp.70-71, and
footnote p.71.   3. ibid., p. 70

meaning. He is suggesting that even these "apparent proper names" could be endowed with a reference, thus ensuring that these expressions provide no exception to his original assumption that to every significant referring expression there corresponds an object, which can be regarded as its meaning. The fact that the stipulation suggested is obviously artificial and opposed to the general tenor of "On Sense and Reference" serves only to highlight, in my view, the importance Frege continues to attach to the earlier and simpler theory of meaning, where the sense or meaning of any expression is identified with its reference, the object it supposedly stands for. I shall have more to say on this matter when I come to examine Frege's proof that referring expressions must have at least a sense, if not also a reference. But to conclude this chapter, I shall give one illustration of how Frege retains his denotationist conception of meaning, even in his later works.

On a number of occasions, Frege draws a distinction between what he calls "designating" and "indicating" symbols. The numerals "1", "2", and "3", for example, are designating symbols because they are proper names of

specific objects, the numbers 1, 2 and 3;[1] whereas

the letters "a", "b" and "c" which occur for instance

in the incomplete functional expression "(a+b)c" are

indicating symbols, because they indicate indefinitely

a range of numbers any of which could be used to complete

the function.[2]

When he first states this distinction in the Be-
griffsschrift, Frege says that "each letter represents
...an indeterminate number";[3] but in the later essay

"Function and Concept", he makes the same point rather

differently, saying that "a number is just indicated
indefinitely".[4] At first sight it might appear that

these different accounts are merely alternative ways of

making the same point. And in a way they are, for the

doctrine expressed remains the same. But if we turn

to an even later essay, "What is a Function?", we find

that Frege specifically criticises his earlier account

of indicating symbols. Whereas he had previously been

content to say that letters in functional expressions

indicate "indeterminate numbers" or "variable numbers",

Frege now wishes to dispense with this formulation

1. See Geach and Black, p.1; Foundations, p.49
2. ibid., p.1, p.176. Compare The Monist, XXV(15)
pp.482-483   3. ibid., p.1, my underlining
4. ibid., p.24, my underlining

altogether, because it suggests that he is countenanc-
ing the existence of a peculiar sort of number, the in-
determinate, variable or indefinite number. Since Frege
is unwilling to admit the existence of objects which
could be called "indefinite numbers", he offers a new
description of indicating expressions which does not
contain the expression "indefinite numbers". Instead
of saying that a letter "designates an indefinite
number", he now says that a letter "indicates numbers
indefinitely".[1]

Frege's formulation of this point however raises
certain difficulties. If the new definition of indicat-
ing expressions were intended only as an alternative
formulation to the old one, as another way of expressing
the same meaning, we could say that Frege has simply
translated his definition into a new and preferable
form, preferable because it is less likely to mislead
people into thinking that there are indefinite numbers,
as opposed, presumably, to ordinary definite numbers.
Furthermore, as against mathematicians who subscribe
to the existence of indefinite numbers, Frege could
argue that the common use of the expression "indefinite

1.   Geach and Black, p.110

numbers" is no real evidence for their view, since talk
about "indefinite numbers" is prima facie only a manner
of speaking, and sentences containing the expression
"indefinite numbers" can be translated quite adequately
into sentences where this expression does not occur.
So if someone like Quine were to suggest that Frege's
talk of "indefinite numbers" commits him to the existence
of indefinite numbers,[1] Frege could reply that the use
of the expression "indefinite numbers" is just a manner
of speaking, and one that can be dispensed with, if
necessary, by resort to his new definition of indicating
symbols.

It seems however that Frege does not regard his
new definition as simply an alternative translation of
the early definition, but as the only possible way of
describing indicating symbols. If the new formulation
were no more than a translation of the earlier one,
Frege would at least have to admit that the latter is
a possible, if less desirable way of describing indicat-
ing symbols. But, in actual fact, Frege seems to think
that talk about "indefinite numbers" is somehow inadmiss-
able, and that it is wrong not only to believe in the

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1. See From a Logical Point of View, p.13

existence of indefinite numbers, but even to use the
expression "indefinite numbers" at all. Frege's argument
runs as follows: "We cannot say that 'n' designates an
indefinite number, but we _can_ say that it indicates num-
bers indefinitely...There are thus no indefinite numbers,
and this attempt of Herr Czuber's (to argue for the ex-
istence of indefinite numbers) is a failure".[1]

The wording of this last point is possibly open
to a variety of interpretations, depending on how we
understand the use of the words "can" and "cannot". How-
ever Frege certainly seems to suggest that having shown
how the expression "indefinite numbers" can be avoided,
he has somehow proved there is no such thing as an in-
definite number; that is, he suggests that the non-
existence of indefinite numbers somehow _follows_ from the
fact that the expression "indefinite numbers" can be
dispensed with.

As an argument against the existence of indefin-
ite numbers this is obviously quite invalid. And it is
possible that even in his later thoughts about the
Begriffsschrift, Frege is unconsciously falling back on

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1. _Geach and Black_, p.110

the denotationist assumptions that originally underlay
that work: for Frege's argument here seems to depend on
the characteristic denotationist assumption that to every
significant referring there must correspond an object,
and <u>vice versa</u>. Frege's argument that there are no indef-
inite numbers because the expression "indefinite numbers"
is dispensable, or not really admissable as a name, is
just as invalid as the opposite argument that indefinite
numbers must exist because the expression "indefinite
numbers" is meaningful. Adhering to his early theory of
meaning, Frege would presumably have had to admit that
indefinite numbers exist if "indefinite numbers" is
meaningful; but even in rejecting the existence of indef-
inite numbers, the later Frege relies on much the same
sort of argument - by suggesting that since there are
no indefinite numbers, the expression "indefinite numb-
ers" is somehow inadmissable as a form of language.

It could be argued that Frege is not especially
relying on this denotationist argument to show there are
no indefinite numbers, and that he draws his conclusions
chiefly from the mathematical and metaphysical arguments
set out elsewhere in the essay "What is a Function?".

But if so, how can we explain his stating that "we
<u>cannot</u> say that 'n' designates an indefinite number"?[1]
Frege <u>seems</u> to suggest that the sentence "'n' designates
an indefinite number" has to be disallowed because it
means that the letter 'n' is a proper name which refers
to a peculiar object, an indefinite number. But this
suggestion is quite incorrect: in revising his definit-
ion of indicating expressions, Frege himself has shown
that the sentence "'n' designates an indefinite number"
can also be used (misleadingly perhaps) to mean "'n' in-
dicates numbers indefinitely". On Frege's own showing,
the expressions "indicates an indefinite number" and
"indicates numbers indefinitely" are <u>in some contexts</u>
roughly synonymous; and if they are, then there seems
no point in stating categorically that one or other of
these forms of expression "can" or "cannot" be used.
Perhaps, then, Frege would be best represented as hold-
ing that since "indicates an indefinite number" is a
misleading phrase, it would be better to use the ex-
pression "indicates numbers indefinitely". But to dis-
tinguish more or less preferable ways of expressing
certain ideas is not to show that there is anything nec-
essarily wrong or absurd about the less preferable ways.

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1. <u>Geach and Black</u>, p.110, my underlining

In saying that we "cannot" use the less preferable ways, Frege is plainly either overstating his case or more likely assuming a false theory of meaning.

But Frege's concern over the phrase "indefinite numbers" leads him to real error when he says: "...of course we speak of indefiniteness here; but the word 'indefinite' is not an adjective of 'number' but ('indefinitely') is an adverb, e.g., of the verb 'to indicate'".[1] As it stands, this statement is plainly false. Frege might argue that <u>logically</u> or in <u>actuality</u> the indefiniteness here is a characteristic of the letter's indicating function, and not of any object indicated. But this metaphysical argument, even if sound, would be no reason for suggesting that the expression "indicates an indefinite number" as at all wrong <u>grammatically</u>. The grammar of this expression is no less correct than that of its translation; and in any case, Frege would be quite unjustified in suggesting the misleading expression is distinguished or can be detected by its faulty grammar. As Ryle once says, "customary usage is perfectly tolerant of systematically misleading expressions."[2] A more

1. <u>Geach and Black</u>, p.110. See translator's note.
2. "Systematically Misleading Expressions", reprinted in <u>Logic and Language</u>, first series, p.34.

defensible account of Frege's point might be that contrary to what is suggested by the grammatical form of "indicates an indefinite number", the indefiniteness really belongs to the process of indicating and not to any object indicated. Thus someone who accepted this view might argue that the phrase "indicates numbers indefinitely" is less misleading than the alternative expression "indicates an indefinite number" because the adverbial use of "indefinitely" to modify the verb "indicates" appropriately expresses the fact that the indefiniteness is a characteristic of the letter's function of indicating; whereas the adjectival use of "indefinite" to qualify the noun "number" very forcibly suggests (but by no means necessarily implies) that there exist numbers possessing the quality of indefiniteness.

It is a fact, of course, that the adjective/noun combination is very often used to name and characterise an object, or to differentiate a species within a genus. But it is a misleading form of expression simply because it is not always used for these purposes. One of the most persistent fallacies occurs with the interpretation of nouns qualified by adjectives in natural languages

like English; and Frege seems to have committed this fallacy in suggesting that the use of adjective/noun combination "indefinite number" implies that there exists a number possessing the property of indefiniteness.[1]

When we say "Smith is an eminent (popular, wealthy, corrupt) Lord Mayor", we are talking of someone who is Lord Mayor and we are using various adjectives to describe what sort of a Lord Mayor he is. But when we say, "Smith is a possible or probable Lord Mayor", we are <u>not</u> talking about someone who <u>is</u> Lord Mayor, but about someone who might <u>become</u> Lord Mayor. So the addition of <u>some</u> adjectives to the expression "Lord Mayor" shows that we are talking about a certain sort of Lord Mayor; but sometimes the addition of qualifying words shows that we are talking about something quite different. Brentano makes this same point when he says "ein gelehrter Mensch ist ein Mensch; ein toter Mensch ist aber kein Mensch"; and he goes on to distinguish predicates which "enrich" (<u>bereichert</u>) a certain concept, that is, which add to our knowledge of that concept,

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1. Russell once spoke of the "fallacy of verbalism... the fallacy that consist in mistaking the properties of words for the properties of things". "Vagueness", <u>A.J.P.</u> I(23)p.85. Compare Mill: <u>Logic</u>, V.III.6, pp.497-498.

from those which really "change" (<u>modifiziert</u>)the con-
cept, in the sense of making it a different concept.[1]
So even if it is the case that a certain name always
refers to a certain object, it is wrong to infer that
the addition of an adjective or qualifying word to that
expression necessarily means that it is the same object
that is being characterised.

Similarly, it is invalid to argue that the addi-
tion of an adjective to "x" (a noun, referring express-
ion, etc.) implies that there is an object called "x"
which is being characterised in some way by the property
expressed by the adjective. In particular, it is inval-
id to argue that the occurrence of "yx", a noun quali-
fied by an adjective necessarily implies that there is
a genus x being referred to which contains a species
differentiated by the property y. Frege's theory of
indicating expressions, I suggest, is a subtle instance
of this fallacy, and shows, I think, that the Frege
of "On Sense and Reference" does not entirely shake
himself free of the views assumed in the <u>Begriffsschrift</u>.

1. See <u>Psychologie</u>, 2.7.3, vol.2, p.62, footnote. Con-
cerning Brentano's theory of real and apparent names,
see appendices IX, vol.2, pp.158ff, and XVII, vol.2,
pp.238ff.

In discussing Frege's later theory of meaning, I shall
argue that the survival of denotationist thinking
severely compromises the theory of sense and reference,
leaving Frege's philosophy of logic in an unstable and
transitional state. I turn now to examine the philoso-
phy of Brentano, whose views represent a much more
thorough elaboration of the denotationist theory of
logical meaning assumed in Frege's early writings.

CHAPTER 2

Brentano's Empiricist Theory of Meaning.

Brentano and Meinong occupy a position of major importance in the history of recent philosophy of logic; and their status has been rightly indicated, I think, by Professor Passmore who treats Brentano and Meinong as dominant figures in "the movement towards objectivity" that occurred in the late nineteenth century.[1] But except in a few striking instances (for example, Land, Moore, Findlay, and especially Stout), British philosophers until recently have largely ignored Brentano's work, and, in their eyes, Meinong with his "Underworld" has often seemed merely the devil to those wishing to escape the deep blue sea of confusion that engulfs the traditional logicians. Yet, as I hope to show, Meinong's theory of logical objects can only be understood properly as a critical working out of important theories of Brentano, many of which in turn owe their inspiration to a deep study of Mill's Logic, and a sharp awareness of its deficiencies. Lack of acquaintance with Brentano's work and its bearing on English logic at least partly explains, I think, why Meinong's views have been so frequently misunderstood, misrepres-

1. See A Hundred Years of Philosophy, chapter 8.

ented, and even burlesqued by English-speaking philoso-
phers.

The relationship between the views of Brentano
and Meinong is by no means a simple and straightforward
one; but we might roughly sum it up as follows: Meinong
accepts Brentano's view that meanings are somehow ob-
jective and distinguishable from the activities of mind
and the functions of language; but Meinong parts com-
pany with Brentano in the attempt to locate these in-
dependently existing meaning-objects. If Meinong probes
for meanings in a mysterious underworld, then it is
only because, after an equally far-reaching search,
Brentano has failed to find them in this world, the
familiar world of ordinary experience. Meinong's tough-
minded philosophy of meaning must be seen, I suggest,
as the theoretical antithesis of a no less tough-minded
theory of Brentano. Both thinkers accept a denotation-
ist theory of meaning: words and sentences have meaning
by virtue of standing in some relation to independently
existing meaning-objects. As an empiricist, Brentano
never ceases hoping to show that these meaning-objects
are real things, known in experience - and here he
boldly continues along lines indicated by Mill. Meinong

starts from a similar theory of meaning, but, like
Frege, finds the empiricist metaphysics too exiguous,
and embarks upon an ambitious attempt to describe
meaning-objects in non-experiential terms. Here Meinong
strikes out on a path that Frege saw but hesitated to
explore.

Brentano was one of the first philosophers to
cut through the psychologistic confusions of tradition-
al empiricist logic by subjecting loose talk of "terms",
"ideas", "notions", "concepts", "judgements", "beliefs",
etc. to a systematic distinction between mental activ-
ity on the one hand, and whatever objects such activity
might concern on the other. Having drawn the general
distinction between acts and objects, Brentano comes
to the question of what can be meant by "object" in
this context. Since he believes that an object can be
 related intentionally to a variety of minds and mental
activities, he takes this problem to be that of charac-
terising objects as such, clearly and intrinsically,
and not vaguely and extrinsically, as Mill and the
traditional logicians had described propositions, by
referring to their relations with other things such as

mental activities and linguistic objects. Now if, as
in Brentano's view, the activities of stating, judging,
asserting, believing, doubting, denying, etc., are
mental acts, the question immediately arises, To what
sort of objects are the acts of stating, etc., directed?
In short, by distinguishing mental acts from their ob-
jects, Brentano is directly led to ask, What are the
objects of judgement and belief? To this question, as
we shall see, Brentano gives one answer, and Meinong
another. But my purpose in the following chapters is
not to consider their respective achievement in answer-
ing this question, but to consider their joint achieve-
ment in asking this question: for the successful isola-
tion of the metaphysical problem, What are objects of
belief? by Brentano, and its thorough investigation by
him and Meinong certainly constitute a landmark in
recent philosophy of logic.

In raising the problem of what can be meant
by "object of belief", Brentano discovered the great
skeleton in the cupboard of Mill and his followers who
rarely asked themselves what they really meant by using
this expression, let alone how the objects referred to,
could be connected with and distinguished from various

psychological activities and linguistic objects. The
"psychologism" that Brentano and Meinong attack amounts
to little more than the failure to isolate and deal
with these questions, and this failure is clearly exem-
plified in the first Book of Mill's Logic, where logic-
cal, psychological, and linguistic matters are regularly
and hopelessly confused by the uncritical use of ex-
pressions such as "object of belief".

As we have seen, Mill sometimes uses "object of
belief" to mean a statement of assertion when, for
example, he identifies "object of belief" with "proposi-
tion" and both with "what is believed".[1] Now for the
psychological use of "object of belief", we must look
past Mill's criticism of the older psychologistic view
that objects of belief are ideas,[2] and past his bold
protestation that "names...shall always be spoken of
in this work as the names of things themselves, and not
merely of our ideas of things".[3] As Brentano realised,
the cat that is thus thrown out the front door is
quietly let in again by the back door when Mill says,

1. Compare Logic, I.I.2, pp.12-13 and I.V.I, pp.55-57.
2. Logic I.I.2, pp.12-13; I.II.I, pp.14-15; I.V.1, pp.
   56-57
3. Logic I.II.1, p.15.

in a quite unconsciously Meinongian way, "all names
are names of something, real or imaginary".[1] Mill
bequeathed to Brentano and Meinong the problem firstly
of saying what sort of a "thing" is an imaginary object,
and secondly, of locating imaginary objects which,
being imaginary, could not be "in the world", and being
objects could not be purely mental like acts. Further-
more we have already seen how Mill mixes up objects of
belief with linguistic objects in his confused use of
the word "proposition". So in trying to sort out these
various logical, psychological, and linguistic uses of
the expression "object of belief", Brentano and Meinong
are coming to grips with important issues thrown up
by Mill's logic, but by no means satisfactorily dealt
with by empiricist logicians.

It is quite clear too that Brentano and Meinong
were actually stimulated to their work by dissatisfac-
tion with theories of the proposition that Mill took to
be "obvious".[2] Brentano was thoroughly acquainted with
British thought, and with British empiricist thought
in particular, as can easily be seen by a glance at
the English names listed in the index of his Psychologie.[3]

1. Logic, I.II.3, p.16   2. See Logic, I.I.3, p.13
3. Psychologie vom Empirischen Standpunkt, vol.I, p.3.
   References are to the edition Oskar Kraus, 1924,
   reprinted in two volumes in 1955.

Brentano's study of Mill, and Mill's influence on his
thought is clearly evidenced in the numerous criticisms
that Brentano makes of views expressed in the Logic.
For example, Brentano denies Mill's distinction between
the objects of conception and the objects of judgement,[1]
and the view that every act of belief involves at least
two objects[2] on the ground that a single object of the
act of conception or "representation" can also become the
object of an act of belief or judgement, for example,
which affirms or denies the existence of the object.
Brentano even conducted a correspondence with Mill in
which he criticised Mill's theory of judgement and his
distinction between categorical and existential proposi-
tions.[3] It was through Brentano's influence, no doubt,
that Meinong became well-acquainted with British thought;
for one of his early works the Hume-Studien (1877-1882),
was written partially under Brentano's supervision. In
his later writings Meinong frequently refers to issues
discussed by British thinkers as far back as Locke,
devoting, for instance, a close study to Berkeley's
criticism of abstract ideas.[4]

1. Compare Logic, I.II.1, p.13 with Psychologie, 2.7.7-8,
   vol. 2, pp.53ff.
2. Compare Logic, I.I.2, p.12 with Psychologie, 2.7.4,
   vol.2, pp.44ff.
3. See Psychologie, 2.7.7, vol.2, pp.53ff, esp. pp.60ff,
   footnote.
4. See Uber Möglichkeit und Wahrscheinlichkeit (hereafter
   referred to as Mög. u. Wahr.) 1915, pp.171ff.

Sufficient has been said , I think, to show
that the problems thrown up by empiricist logic, and
by Mill's logic in particular provided a starting point
for the inquiries of the Vienna psychologists; and so
one might well regard Brentano and Meinong as immed-
iate successors of Mill in the philosophy of empiricist
logic. The actual extent of British empiricist influ-
ence on the Continent at this time raises too large a
question to be adequately dealt with here, but this
question would have to be considered in relation to the
striking interchange of English and Continental ideas
that occurred in the nineteenth century. On the one
hand, we find German rationalism and idealism derived
from Kant and Hegel flowing across the Channel to Engl-
and and to some extent submerging the stream of native
empiricism. This influence can be seen at its height
in the work of T.H. Green and later of Bradley and Bos-
anquet, severe critics of empiricist logic, and of Mill
in particular. This movement of German thought to Eng-
land is generally recognised.[1] But perhaps less well-
known is the converse movement of British empiricist
thought to the Continent, and to the Vienna school of

1.   See J.H. Muirhead: "How Hegel came to England",
     Mind, XXXVI (27) pp.423-447.

psychology in particular. When empiricist fortunes
were running low in England, Brentano took up the
struggle in Austria,[1] and in criticising contemporary
idealism he broached issues that were still to be
thrashed out in England at least a generation later.
For example, in criticising the idealist thesis that
to be is to be perceived, Brentano argues that it is
not contradictory to talk of the existence of unper-
ceived objects, and here he anticipates the line of
early Moore-Russell realism by a good thirty years.[2]
Moore's early pronouncement that "(if) the proposition
is to denote not a belief (in the psychological sense),
nor a form of words, but the object of belief, (then)
it differs in no respect from the reality to which it
is supposed merely to correspond..." is pure Brentano.[3]
This connection is all the more striking to Australian
students familiar with the work of the late John Ander-
son who also maintained a view like this. In fact,
Anderson's attempt to restate empiricist logic in real-
ist, non-psychologistic terms brings him very close to
the aims and often the doctrines of Brentano.

1. Bosanquet notes this influence. Preface to Knowledge
   and Reality, p.Vl
2. Compare Psychologie, 11.1.7, vol.1, pp.130-131 with
   Moore's "The Refutation of Idealism", Mind, Xl(03)
   pp.433-453.
3. Article on "Truth and Falsity" in Baldwin's Diction-
   ary of Philosophy and Psychology, vol.II, p.717.

The main source for Brentano's philosophy of
logic is his <u>Psychologie vom Empirischen Standpunkt</u>,
edited by his disciple Oskar Kraus, 1924-1928. As it
stands, this work consists of two parts: firstly, the
original <u>Psychologie</u> published in 1874 which Brentano
calls a mere "fragment",[1] being all he completed of a
projected six-volume work covering subjects from the foun-
dations of logic and psychology to theology and specula-
tion on the after-life;[2] secondly, the appendix of
twelve essays added by Brentano to the second edition
of the <u>Psychologie</u>, (1911) together with a number of
studies, sketches and dictations collected and published
posthumously by Kraus. This second part forms a sort
of philosophical supplement to the original work, and
contains some important and most original contributions
to early twentieth-century realism and empiricism.

The original <u>Psychologie</u> is a book on the phil-
osophy of act-psychology, and consists of two parts:
the first, "Die Psychologie als Wissenschaft", discusses
the nature and possibility of psychology as an empirical
science, and the second, "Von den psychischen Phänomenen

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1. Foreword to second edition, vol. 2, p.1.
2. See foreword to first edition, vol. 1, p.1.

im Allgemeinen", outlines Brentano's definition and classification of mental activities. Throughout this work, Brentano's argument reflects the influence of the British empiricists he had studied. Following Hume, he rejects the view that psychology is the study of a soul-substance,[1] arguing that while the data of psychology – as with all the other sciences – is natural phenomena,[2] psychology is the special study of psychic phenomena. In its subject-matter and method, Brentano argues, psychology is not only continuous with the natural sciences, but even with philosophy itself, and for his habilitation at Wurtzburg, he had maintained that "the correct method in philosophy can only be that used in the natural sciences".[3]

Generally speaking, Brentano's psychology has strong affinities with the tradition of British empiricism, but his special emphasis on the word "phenomena" marks one important difference: by "phenomena" Brentano means roughly "data of experience", but he uses this expression in a deliberately non-committal way to avoid

1. Psychologie, 1.1.2, vol.1, pp. 15ff, esp. pp.23-24. Compare Hume's Treatise, 1.1V.6, Selby-Bigge's edition p.252.
2. Psychologie, 2.1.1, vol.1, p.111
3. quoted by M. de Gandillac in his preface to the French translation of the Psychologie, p.9

giving an account of psychology and of science in general which is obviously couched in the language of either mentalist or materialist metaphysics. On the one hand, Brentano is opposed to the materialist reduction of mind to matter, but on the other hand, he is also aware of the route that runs from empiricism to psychologism, and much of his close argument can be understood as a search for a course that starts from the assumptions of common-sense realism and empiricism, and which does not end up in either materialism or idealism and solipsism.

While psychology, for Brentano, rests along with all other sciences on Man's experience of phenomena, it is nevertheless distinguished from the rest by its own peculiar form of experience which Brentano calls "innere Wahrnehmung", internal perception.[1] This he says is something like what Locke calls "reflexion".[2] Following Comte, Brentano argues that our experience of our own mental activities cannot be an internal form of observation, or introspection, because observation presupposes a distinction between our mind as observer and the very same mind as the observed. Accepting the Cartesian assumption that all mental activity is con-

1. Psychologie, 1.2.2, vol. 1. pp.40ff.
2. Appendix Xlll, vol. 2, p.199.

scious, Brentano argues that if every mental act, in order to be conscious, had to be observed by _another_ act, then there would be an endless complication (or regress, we might say) of conscious acts requiring further conscious acts to be conscious of them.[1] Brentano avoids this regress by holding that the act of internal perception does not involve a subject/object distinction like that between the observer and the observed: self-consciousness, he thinks, is part-and-parcel of any act of mind, and in the course of perceiving an object other than itself the mind is incidentally aware of itself as a "second" object.[2] With the aid of internal perception, the psychologist, Brentano holds, can go beyond mere statistical and behavioural studies, and obtain valuable information about the internal mental activity _correlated_ with externally observable behaviour. Such information he thinks can be obtained by the psychologist's own personal use of internal perception, or from other people's testimony of their private experience.[3]

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1. _Psychologie_, 2.2.7, vol. 1, pp.170ff.
2. See _Psychologie_, 2.2.8, vol. 1, pp.176ff and 2.4, vol. 1 pp.221ff.
3. _Psychologie_, 1.2.3ff, vol. 1, pp.48ff.

The first task of psychology as Brentano con-
ceives it is "die Festellung der gemeinsamen Eigentüm-
lichkeiten aller psychischen Phänomene",[1] and in the
second Book of the Psychologie he raises the question
of what distinguishes psychical from physical pheno-
mena. Brentano's answer to this question is that
firstly psychical phenomena are the phenomena known
immediately and indubitably by internal perception;
and secondly they are mental acts which are always dir-
ected towards an object, physical or mental.[2]

In characterising the relation between an act
of mind and its object, Brentano takes up the scholastic
notion of "intentionale Inexistenz",[3] and argues that
the object of any mental act is intentionally related
to the act in the sense that it somehow exists in the
act as a complementary part of it. The object, for
Brentano, is somehow part of the content of the act,
and so he speaks indiscriminately of the intentional act

1. Psychologie, 1.3.1, vol.1 p.62
2. Psychologie, 2.1.5ff, vol.1, pp.124ff.
3. See Psychologie 2.1.5, vol.1, p.128, footnote, for
   Brentano's brief history of the concept of inten-
   tionality. Concerning the origin of the doctrine
   in Aristotle, see Vom Ursprung Sittlicher Erkennt-
   nis, p.54, note 19, p.47 Hague's translation.

as "die Richtung auf ein Objeckt" or "die Beziehung auf

einen Inhalt".[1] So it is a universal and exclusive pro-

perty of mental activity to be concerned with, related

to, or directed towards an object which may be either

a physical or a psychical phenomenon, and which exists

in relation to the act in a state of "immanente Gegen-

ständlichkeit".

Curiously enough this suggestive but certainly

puzzling doctrine is hardly elucidated at all in the

Psychologie of 1874 where Brentano is mainly concerned

with its application rather than examination, and for

a detailed investigation of the concept of intentional-

ity we must look to his later writings. In Vom Ursprung

Sittlicher Erkenntnis, for example, we find the follow-

ing statement:

> "Der gemeinsame Charakterzug alles Psychischen
> besteht in dem, was man häufig mit einem leider
> sehr missverständlichen Ausdruck Bewusstsein
> genannt hat, d.h. in einem subjektischen Ver-
> halten, in einer, wie man sie bezeichnete,
> intentionalen Beziehung zu etwas, was viell-
> eicht nicht wirklich, aber doch innerlich
> gegenständlich gegeben ist. Kein Hören ohne
> Gehörtes, kein Glauben ohne Geglaubtes, kein
> Hoffen ohne Gehofftes, kein Streben ohne Er-
> strebtes, kein Freude ohne etwas, worüber man
> sich freut, und so im übrigen."[2]

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1. Psychologie, 2.1.5, vol.1, pp.124ff. Later, in reac-
tion to Meinong's distinction between "Objekt" and
"Inhalt", Brentano prefers to speak only of "objects",
and to dispense with the reference to "contents". See
Psychologie, 2.7.1, vol. 2, footnote to pp. 39-40
2. para. 19, p.16; Hague's translation, p.12.

This illustrates three features of Brentano's theory of mental intentionality. First it is designed to replace or perhaps to redefine the traditional notion of consciousness as an essential and distinctive property of mind; second, the theory is formulated in such a way that the notion of any mental activity is incomplete without reference to an object or content somehow contained in the act directed towards it; and third, the starting point of the theory seems to be a sort of philosophical/linguistic argument to the effect that just as mental-act words must have a grammatical object to form a meaningful whole, so the acts that those words stand for must have an intentional object to form a psychological whole. For instance, in criticising Hamilton's contrary view that feelings are not directed towards objects, Brentano seems to argue that Hamilton's view conflicts with what is assumed in our way of speaking about feelings and other mental activities:

> "Gewisse Gefühle beziehen sich unverkennbar
> auf Gegenstände, und die Sprache selbst deutet
> diese die Ausdrücke an, deren sie sich bedient.
> Wir sagen, man freue sich an-, man freue sich
> über etwas, man trauere oder gräme sich über
> etwas. Und wiederum sagt man: das freut mich,
> das schmerzt mich, das tut mir leid u.s.f.
> Freude und Trauer folgen, wie Bejahung und
> Verneinung, Liebe und Hass, Begehren und Fliehen,

deutlich einer Vorstellung und beziehen sich
auf das in ihr Vorgestellte."[1]

The view suggested here is that Hamilton's
theory of feeling is falsified by the facts of ordinary
linguistic usage: feelings and emotions must have ob-
jects because we speak of their having objects; and
this is a philosophical/linguistic argument in the sense
that it starts from certain facts about our way of speak-
ing and tries to show that these prove something philo-
sophical about the real nature of what is being spoken
about. This form of argument has been much discussed of
late, especially in connection with Ryle's theory of
category-mistakes.

In premising that the verbal form of an expres-
sion somehow indicates the real form of what is expressed,
this argument, I think, is invalid because, as Ryle has
pointed out, there are systematically misleading expres-
sions[2] whose linguistic form tends to create a _false_
impression of what is being expressed. Brentano also
believes that such expressions occur,[3] but the truth of
this view seems to be incompatible with the validity of

1. _Psychologie_, 2.1.5, vol.1, p.126.
2. "Systematically Misleading Expressions", _P.A.S._,
   XXXII (31/32) pp. 139-170, reprinted in _Logic and
   Language_, first series, pp. 11-36.
3. See esp. appendices 1X, vol.2, pp. 158ff, and XVII,
   vol.2, pp.239ff. Compare 2.4.1, vol.1 pp.221-222.

the linguistic argument for the existence of intentional objects.

After outlining the defining characteristics of psychical phenomena, the _Psychologie_ of 1874 concludes with argument designed to establish the fundamental classes of mental acts. These according to Brentano are:

> _Vorstellung_ (representation),
> _Urteil_ (judgement), and
> _Gemütsbewegung_, (interest).

"Representation" for Brentano covers all those mental acts where an object "appears" or "is presented" to someone's mind: "wie wir das Wort 'vorstellen' gebrauchen, ist 'vorgestellt werden' so viel wie 'erscheinen'".[1] "Representation" means something like "conception", but is a much more general term, for according to Brentano we represent an object not only when we conceive something, but also when we see, hear, imagine, think of, etc., an object. Furthermore the acts of judgement and interest are always directed towards objects which are represented, so that representation is a con-

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1. _Psychologie_, 2.1.3, vol. 1, p.114.

stituent element in <u>any</u> act of mind. Representation
is necessary but not sufficient for the act of judge-
ment, and this in turn is necessary but not sufficient
for any act of interest.[1]

Brentano defines judgement as "ein (als wahr)
Annehmen oder (als falsch) Verwerfen".[2] The wording of
this definition is important because Brentano wants to
treat judgement as an act directed towards an object
which is simultaneously represented, and which could be
represented by itself without the superimposition of
judgement. Judgement according to Brentano is the affir-
mation or denial of the existence of an object, and this
in turn he regards as the act of accepting or rejecting
the object. In other words, judgement is distinguished
from representation in being a different sort of act and
<u>not</u> in having a different sort of object; for Brentano
argues that the object or content of an act of repres-
entation can always become the object of judgement.[3]
In asking a question, for instance, an object is repres-
ented or merely held before the mind, and in answering
that question the same object is affirmed or denied,

1. <u>Psychologie</u>, 2.6, vol.2, pp.28ff.
2. <u>Psychologie</u>, 2.6.3, vol.2, p.34.
3. <u>Psychologie</u>, 2.7.7, vol.2, p.63

accepted or rejected. This point is completely missed in R. Flint's review of the Psychologie[1] which exhibits the very confusion between acts and objects of conception that Brentano is trying to sort out.

Despite this account of judgement, Brentano occasionally suggests the quite different view that "...die allgemeine Natur des Urteils darin besteht, dass eine Tatsache angenommen oder verworfen wird..."[2] and this implies that the objects of judgement – facts – are really different from the objects of representation which are things.[3] It is true that in the original Psychologie, Brentano tends to confuse these two theories of the objects of judgement, but in his later work he clearly distinguishes the former theory as his own from the latter which is really the basis of Meinong's theory of judgement. This latter theory incidentally seems implicit in Mill's argument that "Digging is an operation which is performed upon the things themselves...and in like manner, believing is an act which has for its subject the facts themselves".[4]

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1. Mind, 1(1876) p.122.
2. Psychologie, 2.8.2, vol. 2, p.88. My underlining.
3. See Psychologie, appendix lX, vol.2, p.158.
4. Logic, 1.1V.1, p.57. My underlining.

The third class of mental acts, interest, is
presupposed in the class of judgements, just as the
latter is presupposed in the class of representations.
The act of interest is directed towards an object which
is both represented and judged (either to exist or not
to exist), and for Brentano any act or attitude of mind
more "coloured" than the bare affirmation or denial of
existence falls into the class of "Interesse" which
therefore includes all acts of feeling, sentiment, emot-
ion, etc.[1]   Brentano says there is really no approp-
riate name for this class, and he uses a variety of ex-
pressions such as "Interesse", "Gemütsbewegung", and
"Liebe und Hass".[2]   I follow G.F. Stout in translating
all these by "interest".[3]

Developing his theory of judgement, Brentano
rejects the traditional subject-predicate analysis of
what is judged on the grounds firstly, that such analysis
reflects a verbal and not a logical distinction, and
secondly, that it does not apply to some judgements,
for example, existential judgements which simply affirm
or deny the existence of a single character.[4]   Brentano

1. Psychologie, 2.6.3, vol. 2, pp.33ff. Compare 2.8,
   vol. 2 pp.83ff.
2. See Psychologie, 2.6.3, vol.2, pp.23ff.
3. See his Analytic Psychology, 4th edition, vol.1,p.40
4. Psychologie, 2.3.3. vol. 1 pp.199-201.

also argues that there is no _logical_ distinction bet-
ween judgements expressed in existential, categorical
and hypothetical forms, because the categorical and
hypothetical forms to him are simply alternative ways
of expressing the content of the fundamental form,
the existential judgement.[1]

According to Brentano's theory, judgements ex-
pressed as All (or some) S are P, S is P, if S, then P,
etc., can all be expressed in the basic existential form
as the affirmation or denial of an object jointly char-
acterised by the properties SP or S$\bar{P}$. The I and E pro-
positional forms of traditional logic affirm and deny
respectively the existence of the object SP; and the O
and A forms affirm and deny respectively the existence
of the object S$\bar{P}$. Note that the existential form is
better suited to Brentano's analysis of judgement
because it omits any reference to quantification (by
expressions such as "all", "some", etc.), thus according
with his view that judgement is the affirmation or den-
ial of a _single_ object characterised by one or more pro-
perties.[2] Note also that Brentano's analysis of judge-
ment involves two types of negation: firstly, the mental

1. _Psychologie_, 2.7, vol. 2, pp.38ff.
2. See appendix 1X, vol.2, pp.161ff.

act of negation or denial which is one of the possible
ways of judging an object; and secondly, the negative
character which qualifies the object $S\bar{P}$. Brentano really
redistributes the function of negation so that the O
form (traditionally regarded as a negative proposition)
becomes affirmative, in asserting the existence of an
object jointly characterised by the positive character
S and the negative character $\bar{P}$. Similarly, the A form
(traditionally regarded as positive) becomes negative in
Brentano's system, because it denies the occurrence of
the object $S\bar{P}$.[1] The I form remains affirmative because
it affirms the existence of the object SP, and the E
form remains negative because it denies the existence
of the object $S\bar{P}$.

In view of the above theory of judgement, let
us now consider how Brentano would answer the questions,
What are objects of belief?, What are meanings of
assertion-sentences?. Brentano's answer is initially
quite brief: as far as he is concerned, there is no
special class of objects corresponding to assertion-
sentences because we do not find in experience any objects
which are peculiarly objects of judgement. In his view,
the objects which we judge to exist and the objects in

1. Psychologie, 2.7.7-8, vol.2, pp.53-65.

which we believe are identical with the objects of all
other mental acts. So when someone asserts that some
men are wise, he affirms the existence of the object
wise-man,[1] and similarly when someone denies that squares
can be round, he denies the existence of the object
round-square.[2]

Brentano's theory here is in fact an elaborate
version of a view Frege suggests a few years later in
the Begriffsschrift. As we saw earlier, Frege first
adopts the view that all varieties of meaning can be con-
strued on analogy with the name-thing relationship, and
that the meanings of assertion-sentences (that is, judge-
ment-contents) need not be distinguished from the mean-
ings or contents of any other symbols. The sentence
"X is Y" refers to a meaning-object just as "Cato" and
"the number one" refer to their objects; and for early
Frege, the similarity of sentence- and word-denotata is
shown by the fact that sentence-meanings can be denoted
by individual referring expressions such as "the cir-
cumstance that X is Y", or "X's being Y"; that is, by
expressions whose function is similar to that of names/people,
of

1. Psychologie, 2.7.5, vol.2, p.49.
2. ibid., appendix XV, section 5, vol. 2, p.216.

places, things, etc. Having suggested this theory,
however, Frege fails to work it out in detail by pro-
viding a positive characterisation of objects which
are meanings, as distinct from objects which are merely
signs standing for objects other than themselves.

Brentano not only agrees that all varieties
of meaning resolve to the name-thing relationship, but
also goes further than Frege by trying to work out this
doctrine in specific·detail, with the aid of the theory
of mental acts. Brentano thinks that sentences have
meaning in precisely the way that individual words and
phrases have meaning, that is, by referring to an ob-
ject of a mental act which must at least be an act of
representation. (This is Brentano's way of saying that
every expression we significantly use, or understand,
must refer to some object of our experience). Further-
more, Brentano argues that the object referred to by
the assertion-sentence "some men are wise" is identical
with the object referred to by the phrase "wise-man".
This same object can be thought of (as existing) and
judged (to exist); and the difference between thinking
and judging, Brentano believes, is to be found not in
the object thought or judged about, but in the psycho-
logical processes of thinking and judging.

Despite its initial simplicity, this theory gives rise to serious difficulties which Brentano recognises and which occupy his philosophic thought in later years. In the foreword to the second edition of the Psychologie (1911) he states that although his views have not changed essentially since the first edition, they have seen some new developments, and these developments are recorded in a most interesting series of appendices, in which Brentano attempts to consolidate his intentional analysis of psychological acts in general, and of judgement in particular.

If Brentano's position has changed at all in these later writings, it is towards a more radical empiricism. For instance, he no longer believes "dass eine psychische Beziehung jemals anderes als Reales zum Objekt haben könne";[1] and, in opposition to the younger Meinong, Brentano tries to establish in his later writings that all mental acts are directed towards Dinge, that is, towards "things" in the sense of "real objects" known in ordinary experience.[2]

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1. Psychologie, vol.2, p.2
2. See appendix IX, vol.2, p.158

Now at first sight there seem to be many mental acts whose objects could not possibly be regarded as things or real objects: for example, we cannot admire a centaur in the same way we admire a man, because there is no such thing as a centaur. Furthermore, it is difficult to see what sort of real object is being judged when we either correctly deny the existence of an object that does not in fact exist, or when we incorrectly affirm the existence of an object which does not in fact exist. For Brentano, these difficulties will be solved if he can give an intentional analysis of what he calls an "ens rationis" or a "Fiktion".

While developing his own solution, Brentano explicitly distinguishes it from another type of solution which he firmly rejects. He notes that in attempting to explain the meaning of sentences such as "centaurs do not exist", certain theorists have introduced the notion of the content of an act as something quite distinct from the object, and although Meinong is not mentioned here, the doctrine referred to is obviously his. According to this alternative solution of the problem of fictions, the centaur would be the object of the judgement that centaurs do not exist, but the content would be the non-existence of centaurs. Furth-

ermore, to account for the difference between true
and false judgements, this other theory distinguishes
between "real" and "unreal" contents, so that the being
of the centaur is an <u>unreal</u> content, that is, the con-
tent of an incorrect judgement-act, and the non-being
of the centaur is a <u>real</u> content, that is the content
of a correct judgement-act.[1] In view of Brentano's
careful distinction between his theory of fictions and
false beliefs and that of Meinong, we must reject the
confusion of their respective views in Bosanquet's
<u>Three Chapters on the Nature of Mind</u>, where what he
calls "the theory of mind on the Brentano-Meinong basis"[2]
is clearly Meinong's alone, being the very type of
theory that Brentano rejects.

    In opposition to Meinong's liberal use of ex-
pressions such as "real" and "unreal", "being" and "not-
being", Brentano holds that there is only <u>one</u> proper
sense of "to be" and all other existence-words and
that is the sense in which a real thing or object is
said "to be".[3] "Beings of reason" and "fictions", he
argues, are really just subject or predicate <u>words</u>

1. See <u>Psychologie</u>, appendices 1X, vol.2, pp.159-160,
    and <u>XV11</u>, vol.2, pp.259-260. Compare de Gandillac's
    first note to p.284 of the French translation, and
    Kraus' note 2 to appendix 1X, p.297.
2. Chapter 11, esp. pp. 46ff.
3. <u>Psychologie</u>, appendices XV1 and XV11, vol.2,pp.
    226ff. Compare L. Gilson: <u>La Psychologie Descrip-
    tive selon Franz Brentano</u>, pp. 143ff.

which "nicht für sich reale Dinge bedeuten".[1] Brent-
ano draws a sharp distinction between expressions which
are merely apparent or "grammatical" names, and those
which are logically or psychologically proper names.
Words like "exist", "be", "existence", "being", etc.,
he takes to be "mitbedeutendes" or syncategorematic,
because as ordinarily used they do not refer by them-
selves to objects such as Existence, but are used in
conjunction with other words in sentences to talk about
real or existing objects.[2]

But words like "existence" and "being" are not
the only instances of fictional expressions which,
Brentano argues, are used regularly in ordinary language
to achieve simplicity and brevity of expression, and
used to such an extent that ordinary language could
not possibly do without them.[3] And, Brentano continues,
we must be aware of the occurrence of fictional expres-
sions, otherwise we might be misled into thinking with
some philosophers that all names are real names, and
that in addition to real things, there exist non-
things. Here Brentano makes a pointed reference to
the doctrines of both Meinong and Husserl;[4] and he

1. Psychologie, appendix XVII, sec. 14, p.275.
2. ibid., 2.7.5, vol.2, pp. 48ff; 2.7.7, vol.2, p.57
3. ibid., appendix XVI, vol.2 p.275; appendix IX, vol.
   2, p.163.
4. ibid., appendix XVII, vol.2, pp.275-276.

picks out logicians along with mathematicians as people
who are especially prone to the cultivation of fictions.[1]

By means of his theory of fictions, Brentano
hopes to reconcile the traditional logic of propositions
and their terms with an empiricist theory of meaning.
The theory he hopes to save and the difficulties facing
that theory may be illustrated by the following passage
from Mill.

"Every proposition consists of three parts:
the Subject, the Predicate, and the Copula. The predi-
cate is the name denoting that which is affirmed or
denied. The subject is the name denoting the person or
thing which something is affirmed or denied of. The
copula is the sign denoting that there is an affirmation
or denial....Thus in the proposition, The earth is round,
the Predicate is the word round, which denotes the qual-
ity affirmed...the earth, words denoting the object which
that quality is affirmed of, compose the subject..."[2]

As Brentano realises, this analysis may plaus-
ibly be applied to sentences like Mill's example, "the
earth is round", in which the subject expression "the
earth" denotes a real object known in experience. But
Mill's analysis cannot plausibly be applied to sentences
containing subject expressions such as "the round square",
"a centaur", "a unicorn", etc. which obviously do not

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1. See L. Gilson: Méthode et Métaphysique selon Franz
    Brentano, chapter II, esp. pp.68-69.
2. Logic, I.I.2.

refer to real objects of experience. Mill might try to
surmount this difficulty by developing his view that "all
names are names of something, real or imaginary",[1] but
to Brentano this would be the thin end of the Meinongian
wedge: this would mean admitting that any significant
referring expression denotes some sort of object, existent
or non-existent, possible or impossible. So to avoid
this conclusion, Brentano modifies Mill's assumption that
a proposition-sentence is formed by "putting together
two names", by introducing the distinction between genu-
ine and apparent names.[2]

A psychologically genuine name, according to
Brentano, is one which stands for a real object of exper-
ience, and therefore of some mental act belonging to the
class of representation. A genuine name stands for an
object of representation independently of grammatical con-
text, and without the aid of other words.[3] An apparent
or merely "grammatical" name is one which is used like
a genuine name as, say, the subject of a sentence, but
does not by itself stand for a real object of experience,

1. Logic, I.I.3
2. See Psychologie, appendix IX, vol. 2, pp.158ff,
   and appendix XVII, vol.2, pp.238ff.
3. See Psychologie, vol.2, p.275; vol.2, p.163.

and does not by itself have any meaning or significance.
These pseudo-names have meaning only when used in connec-
tion with other words, and Brentano compares their semant-
ic function to that of prepositions and conjunctions.

Brentano's distinction between genuine and
apparent names is rather like Mill's distinction between
categorematic and syncategorematic terms.[1] Following
the schoolmen, Mill regards as categorematic any "word
which could be used either as the subject or predicate
of a proposition without being accompanied by any other
word".[2] Brentano however takes a much narrower view of
categorematic expressions, because he thinks that some
expressions can function as grammatical names, as sub-
jects of proposition-sentences, without being logically
or psychologically genuine names; that is, without being
names of real objects. For Mill, a categorematic ex-
pression is merely a grammatical name; but for Brentano,
a categorematic expression must be not only a grammatical
name but also a psychological name. On Mill's view, an
expression such as "the round square" is capable of func-

1. Logic, I.II.2
2. loc. cit.

tioning as subject of a proposition, and hence must be
a categorematic name. Brentano, however, sees that this
view entails the repugnant consequence that this expres-
sion must be the name of some queer object which is both
round and square; and to avoid this consequence, he
argues that when we use the expression "the round square",
we do not use it in a referring way at all. By itself,
the expression signifies nothing; it only has meaning
when used in some wider linguistic context. Therefore,
Brentano concludes, when we use the expression "the round
square" as subject of an assertion-sentence, we are not
talking about an object which is both round and square,
but about something quite different. Brentano's problem
in his latest writings is to explain what this something
is.

Whatever its difficulties, Brentano's distinc-
tion between genuine and apparent names constitutes an
important refinement to his denotationist theory of
meaning: for given this distinction, Brentano is able to
say that genuinely meaningful names refer to objects of
experience, without being committed to the view that
objects of experience include fictitious, unreal, and
impossible objects. But although he tells us that

apparent names do not have meaning in themselves, but only in conjunction with other words, Brentano fails to explain how syncategorematic expressions in general have meaning, if it is not by having a reference. For his purposes, Brentano is content to argue that the belief in fictitious, unreal, and impossible objects arises out of mistaking apparent for genuine names, and that fictions etc. can be dispensed with by showing that their supposed names are not really names at all.

A psychologically genuine name according to Brentano stands for a real object of an act of representation. But in his later writings, Brentano strongly affirms that "alles Psychisch sich Beziehende bezieht sich auf Dinge".[1] Now since fictional expressions, on his view, are not psychologically genuine names, Brentano's problem in his later work is to say how our mental acts are directed towards real things even when we represent or make judgements about fictional beings. In other words, Brentano's problem is to obtain an intentional analysis of fictional expressions (which includes for him sentences expressing false judgements),

1. Psychologie, appendix IX, vol.2, p.158

without resorting to Meinong's metaphysics of things
and non-things, and real and unreal contents. In short,
the question to which Brentano devotes his last thoughts
is whether an act-psychologist can be a realist without
being an ultra-realist, whether he can achieve his
original purpose of developing a psychology purely "from
the empirical point of view."[1]

Brentano's answer to this question is very
complicated, and bristles with difficulties. I can do
no more here than briefly outline it. He begins by re-
affirming his early distinction between the primary and
secondary objects of mental acts: originally he had argued
that in the act, say, of imagining a tree, the mind rep-
resents the tree as primary object, and at the same time
the act represents itself as secondary object.[2] In his
later studies, Brentano commonly refers to this process
in terms of _modus rectus_ and _modus obliquus_: a primary
object, such as the imagined tree, is represented _in_
modo recto, and the secondary object, the mental act
itself, is represented _in modo obliquo_.[3]

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1. See Appendix XVII, vol.2, p.275. Compare Kraus' Intro-
   duction vol.1, p.xix, and John Laird: _Recent Philos-_
   ophy, p.110
2. _Psychologie_, 2.2, sections 9ff, vol.1,pp.180ff.
3. _Psychologie_, appendix IV, vol.2, pp.145ff.

Next Brentano reaffirms Aristotle's view that there can be no such thing as a "Negatives Objekt" arguing that when I represent a non-green tree, I really represent a tree which I deny is green.[1] Perhaps this argument explains how real objects can have negative as well as positive characters, but there is still the problem of what is the object of my mental act when I deny the existence of a completely fictional being such as the centaur. To this Brentano answers that we really cannot represent and reject a fictional being SP directly, in modo recto, because there is no real object there to be denied; but that we must deny it in modo obliquo: that is, by representing to ourselves the mental act of someone else who in turn represents an object S and denies that it is P. In other words, in representing a fiction, we really represent to ourselves the object of someone else making a false judgement.[2]

So Brentano is driven to the conclusion that fictions, beings of reason, objects of false judgement, etc., are all to be understood as real objects in the sense of other people's thoughts which we represent to

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1. Appendix IV, vol.2, p.147
2. Appendix IX, vol.2, pp.168-169

ourselves. This view immediately suggests numerous difficulties, but we cannot consider here how Brentano might solve them. It is obvious, however, that Brentano has been forced into a tight corner through trying to maintain that all objects of true and false judgements, that is, that all logical meanings are real and empirically observable things, and through trying to avoid the Meinongian conclusion that judgements must have a content which corresponds to a real object in the case of a true judgement, and which corresponds to a non-existent object or to nothing in the case of a false judgement. But the difficulties that Brentano faces with his theory of judgement are the very ones which Meinong sets out to solve by developing another special version of the doctrine of mental intentionality.

Chapter 3

The Metaphysical Theory of Logical Meaning.

I. Frege's Third Realm.

In this chapter, I shall outline the metaphys-
ical theories of logical meaning, proposed by Frege and
Meinong. My purpose here is chiefly historical. In the
first part, I want to show briefly how Frege anticipates
Meinong in arguing that the meaning of words, phrases
and sentences can be explained only by assuming the exist-
ence of objects which belong neither to our private mental
world nor to the public world of common experience. In
the second part of the chapter, I want to show how Mein-
ong, working in the tradition of Austrian act-psychology,
follows a route indicated but hardly explored by Frege,
and goes on alone to develop a radical theory of meaning
in non-empiricist terms. Frege's main contribution to
a metaphysical theory of meaning is not any detailed
account of non-empirical meaning-objects, but an import-
ant argument designed to show that some such meaning-
objects must be recognised – and I reserve my critical
discussion of this argument for the next chapter. Mein-
ong, however, attempts not only to show the necessity of

such a theory of meaning, but also to develop its implications into a comprehensive and unified philosophy. I do not intend to offer any criticisms of Meinong's elaborate doctrines in this short chapter, but shall be content if I can summarise his theory of meaning, and indicate some of its connections with the work of Brentano, Frege, and Russell.

The metaphysical theories of meaning, proposed by Frege and Meinong are not only interesting in themselves, but also important in their bearing on subsequent philosophy. Many philosophers and logicians in this century have seriously asked with Ryle, "Are there propositions?",[1] not only in the obvious straightforward sense of "Are there propoundings or statings of truths and falsities?", but in the special philosophical sense of "Are there queer, other-worldly objects of thought called 'propositions', 'meanings', 'accusatives', etc. which exist over and above and somehow mediate between thought (or language) and the world?". During the first two decades of this century, this sort of question received close attention in England, especially from early Moore

1. P.A.S., XXX(29/30) pp.91-121. Compare A. Kaplan and I. Copi: "Must there be Propositions?", Mind, XLVIII (39) pp.478-484.

and Russell;[1] and during the 'thirties and 'forties,
this same question was frequently canvassed in the
United States, where metaphysical or "intensional"
theories of meaning derived largely from the later views
of Frege found strong supporters in people like Church,
and strong opponents in people like Quine and Goodman.
The history of this controversy in America can be traced
in the early volumes of The Journal of Symbolic Logic,
and its impact is still felt even as late as Quine's
Word and Object, 1960.[2]

By treating early Frege in connection with Mill
and Brentano, and later Frege in connection with Meinong,

1. See Chapter 5 of this essay. Compare E.H. Strange:
    "The Nature of Judgement", P.A.S., XVI(15/16)pp.326-
    343, esp. pp.331ff; also R.M. Blake: "On McTaggart's
    Criticism of Propositions", Mind, XXXVII(28) pp.439-
    453, esp. p.443.
2. See chapter VI, "Flight from Intension". For an ex-
    treme statement of the "intensionalist" position, see
    C.I. Lewis: "Some Suggestions concerning the Meta-
    physics of Logic" in S. Hook (ed.): American Philoso-
    phers at Work, pp.93-105. See also A. Church: Review
    in J.S.L., VI(41) pp.30-32; and "The Need for Abstract
    Entities in Semantical Analysis", Proceedings of the
    American Academy of Arts and Sciences, LXXX (51) pp.
    100-112. C.A. Baylis: "Facts, Propositions, Exemplif-
    ication, and Truth", Mind, LVII(48) pp.459-479; G.P.
    Henderson: "Intensional Entities and Ontology", P.A.S.,
    LVIII(57/58) pp.269-288; M.A. Greenman: "A White-
    headian Analysis of Propositions and Facts", Phil.
    and Phen. Res., XIII(52/53)pp.477-486; P. Marhenke:
    "Propositions and Facts", University of California
    Publications in Philosophy, XXV(50)pp.273-298, esp.
    pp.278ff.

I wish not only to show how Frege's views changed in
the period between the Begriffsschrift and the Grund-
gesetze der Arithmetik, but also to emphasise the trans-
itional or embryonic state of the doctrines for which
Frege is now famous. Even in his very late article,
"The Thought",[1] Frege is merely approaching the sort of
philosophy that Meinong elaborates in great detail; and
it is Meinong – not Frege – who provides the classical
statement of a metaphysical theory of logical meaning.
This being so, it is curious to note that in recent

American discussion of "intensional" theories of meaning,
Frege is constantly referred to, and Meinong generally
ignored. This is partly explained, perhaps, by the
fact that people like Church, Quine and Goodman share
Frege's interest in logic and mathematics, rather than
Meinong's interest in psychology. But apart from offer-
ing the very important argument that expressions must
have a sense as well as a reference, Frege does very
little to develop an intensional theory of meaning,

although, as I shall show, he clearly commits himself to
such a theory. However, students interested in meta-
physical theories of meaning can hardly avoid considering

1.   "The Thought: a Logical Inquiry", Mind LXV(50)
     pp.289-311 (hereafter referred to as The Thought).

the work of Meinong, because he best represents the initial simplicity[1] and the ultimate complexity of such theories, their initial advantages as well as their ultimate disadvantages.

As far as I know, Frege develops his theory of meaning-objects without knowledge of Meinong's work or of its relevance to his own philosophical investigations; and, although it is interesting to speculate as to how Frege would react to Meinong's views, few commentators have attempted to consider Frege's problems in the light of Meinong's work. Russell, it is true, correctly links Frege and Meinong as supporters of the view that "the denotation is what is concerned in propositions which contain denoting phrases";[2] but Russell fails to see any connection between Meinong's theory of objects and later Frege's theory of sense, because he concentrates on Frege's early view that expressions without reference should arbitrarily be assumed to denote the number 0. What Russell and many after him fail to note is that, despite differences of tradition and discipline, Meinong and later Frege hold very similar views on the nature of

1. See Russell: "On Denoting", in Logic and Knowledge, p.45
2. op. cit., p.47

judgement and on the meaning of sentences which express
judgements.

Like Meinong, Frege is strongly attracted by
the advantages of a metaphysical theory of judgement-
objects, and, in fact, he arrives at his notion of ob-
jects of thought by distinguishing between acts and
objects of mind, very much in the manner of the act-
psychologists. Like Brentano and Meinong, Frege critic-
ises the confusion of acts and objects of mind in "psycho-
logical metaphysics";[1] and like them, he draws a dis-
tinction between the subjective and objective uses of
expressions like "Idee" and "Vorstellung"[2] and goes on
to distinguish the private and individual acts of know-
ing from the public and common objects known in those
acts. Furthermore, Frege's regular comparison between
the mental act of knowing and the physical act of grasp-
ing a pencil[3] is precisely the sort of analogy the act-
psychologists draw; and although Frege does not actually
use the notion of intentionality, it would be quite
justifiable to ascribe to him an intentional analysis of

1. See Foundations, Introduction, and sections 26, pp.
   33ff, and 93, p.105; Geach and Black, pp.46, 59ff,
   79; "The Fundamental Laws of Arithmetic: Psychologi-
   cal Logic", The Monist, XXVI(16)pp.182ff.
2. See The Monist, XXVI(16)p.188; Foundations, p.37,note 1.
3. The Monist, XXVI(16) pp.196-197; Geach and Black,
   p.79, pp.120ff; The Thought, p.307.

mental activities, including the act of judging. Unlike Meinong however, Frege fails to work out the ramifications of an intentional theory of logical objects and, as I shall argue later, leaves his account of logical meaning in an unsatisfactory transitional state, reflecting various unintegrated points of view. But nevertheless, in view of Frege's sustained criticisms of empiricist and psychologistic theories of meaning, I should have no hesitation in placing Frege along with Brentano and Meinong in "the movement towards objectivity", and regarding him as an important precursor, in this respect, of early Moore and Russell.

Although Frege and Meinong support a denotationist theory of meaning, they differ from Mill and Brentano in recognising that sentences do not mean in the way that names name. While still treating meaning as a word-thing relationship, they nevertheless recognise varieties of meaning, and try to explain these by postulating different types of meaning-objects. Both Frege and Meinong hold that what sentences say is different from what names name, and in making this point, as we shall see, they come near to the view that saying or asserting something is not the same as naming something.

To appreciate the importance of this step, let us recall the older denotationist view. Mill, for instance, says hardly anything at all as to how proposition-sentences have meaning, but he seems to think that a proposition-sentence is just a complex of names, or perhaps a many-worded name. "Every proposition", he says, "consists of at least two names; brings together two names, in a particular manner".[1] From this analysis of propositions, Mill concludes that in the act of judging a proposition, one is concerned with nameable objects. "It appears (from the above analysis of propositions)" he argues, "that for an act of belief, one object is not sufficient; the simplest act of belief supposes, and has something to do with, two objects: two names, to say the least; and (since the names must be names of something) two nameable things".[2] In other words, Mill here treats the proposition as a complex of at least two names standing for a complex of at least two objects; and so we can infer that in his view, the proposition-sentence does not stand for any type of object peculiar to itself. Now although Brentano disagrees with Mill in holding that judgement can be concerned with one object (as in

1. Logic, I.I.2
2. loc. cit.

the case of an existential judgement), he nevertheless
accepts and explicitly states Mill's assumption that the
objects of judgement are identical with the objects of
all other mental acts; that is, that the objects of
judgement are just nameable things.[1] Both Mill and Bren-
tano agree that names stand for things, that sentences
are made up of names, and that, if anything, sentences
stand for the objects denoted by their constituent names.

Traces of this view may be found in Frege's early
writings as when, for instance, he says "names are mere
proxies for their content, and thus any phrase they occur
in (other than identity-sentences) just expresses a
relation between their various contents".[2] But according
to his mature view, the meaning of an assertion-sentence
is more than a mere complex of name-contents; it is an
entirely new and peculiar sort of entity which Frege
calls a "thought".[3] Meinong, as we shall see, later
adopts a very similar position when he rejects Brentano's
view that the objects of mental acts are all of one type,
and argues instead that the mental act of judgement is
concerned with special objects which he calls "objectives".

1. See Psychologie 2.7.4, vol.2, pp.53ff.
2. Geach and Black, p.10. My addition in brackets.
3. ibid., p.62

In developing the notion of an object with
which judgements are exclusively concerned, Frege and
Meinong, I suggest, are trying to extend a denotationist
theory of meaning to explain how sentences have meaning,
and how the use of sentences differs from the use of
"names" (referring expressions, descriptions, predicate
terms, etc.). As we have seen, Mill, Brentano and early
Frege generally think of meaning as a function of words
and phrases; and since they tend to think of a sentence
as a string of words or phrases, they assume that the
semantic function of a sentence needs no special elucida-
tion. But in as far as they think of meaning as a name-
thing relationship, they create the problem of explaining
what sort of name a sentence is, and what sort of thing
it stands for. This problem, however, is hardly dealt
with at all by Mill, Brentano and early Frege, and so,
when later Frege and Meinong come to consider what sort
of object is signified by an assertion-sentence, they
are making an important and probably novel contribution
to denotationist theories of meaning. But more than
this - they draw attention to the fact that words have
a variety of uses, that can be used not only to name
things, but to say things. A good deal of the philosophy
of Frege and especially of Meinong can be understood as

an attempt to specify in what sense words can be said to name "things" and say "things".

Frege, in fact, seems to be the first philosopher to distinguish explicitly between what a name names (its reference) and what a sentence expresses (its sense, a thought). But he is not the first to have noticed the basic difference between meaning and naming, for, in his theory of the denotation and connotation of expressions, Mill anticipates Frege by pointing out that "whenever (expressions) have properly any meaning, the meaning resides not in what they denote, but in what they connote".[1] Mill uses "denote" in various ways (proper names "denote" their bearers, descriptive phrases "denote" the objects to which the descriptions apply), but his main point is that what we would ordinarily call the "meaning" or "signification" of an expression is not to be identified with the object or objects that the expression denotes. Rather he suggests that the meaning of an expression is to be found in what he calls the "connotation" of the expression.

According to Mill, most words and phrases perform a double function: they not only denote objects, but

1. Logic, I.II.5

also connote attributes of, or convey information about
the objects they denote. The word "white", for instance,
not only denotes all the things that are called "white",
but also "implies" the attribute of whiteness, by virtue
of possessing which, things are called "white". In
Mill's view, it is the meaning or connotation of an ex-
pression that determines what it names: objects are called
"white" only when they possess the attribute connoted by
"white", that is whiteness. Mill realises that the same
object can be denoted by a variety of expressions. For
example, the paper on which I am now writing is denoted
not only by "white", but also by other words such as
"oblong", "smooth", and "flat", and by phrases such as
"the paper on which I am now writing". And it is probably
his awareness of the fact that the same object can be
denoted by many expressions that leads Mill to the conclus-
ion that the object cannot be regarded as the meaning of
these different expressions. Perhaps he realises, too,
that if an object were the meaning of all the expressions
which denote it, then all those expressions would be
synonymous. In any case, Mill does make the important
suggestion that words perform more than a mere naming or
denoting function, although he does not give a very
clear account of what is involved in this other "connoting"
function. Perhaps his view is best represented by saying

that the connotation of an expression is the property
or complex of properties it conveys, or more generally,
the information it conveys about whatever is denoted by
the expression. The main point I wish to emphasise,
however, is that, in distinguishing the connoting function
from the denoting function of expressions, Mill certainly
anticipates Frege in separating the notion of meaning
from the notion of naming, at least to some extent. But
in making this point, I do not wish to suggest that Mill's
distinction between denotation and connotation is analog-
ous to Frege's distinction between sense and reference.
There are many differences between these two theories, but
generally speaking, Frege's use of "Bedeutung" is much
narrower and less equivocal than Mill's use of denotation,
because Frege holds that only uniquely referring express-
ions (including assertion-sentences) have a reference; and
furthermore, Frege's use of _Sinn_ is much broader than
Mill's use of "connotation", because, unlike Mill, Frege believes
that ordinary proper names ("Socrates", "Plato", "Aristotle")
have a sense or meaning.[1]

Frege holds that a referring expression performs
two functions, that it not only "stands for or designates

1. See _Geach and Black_, pp.57-58, esp. footnote to p.58.

its reference", but also in some way "expresses its
sense".[1] The phrase "the morning star", for example,
stands for or designates its reference, the morning star,
and it expresses its sense which according to Frege is
something like "the star that appears in the morning sky".
Now without considering Frege's actual proof that referr-
ing expressions must have sense (I discuss this in the
next chapter), let us simply ask what does Frege mean
by "sense".

Frege does not give a very explicit answer to
this question, because he devotes most of his attention
to proving that expressions have sense. But we can at
least say this: that when two expressions differ in
sense, they differ not necessarily in reference but in
meaning, not in what they refer to but in what they ex-
press. Now Frege does not identify the sense of an ex-
pression with its whole meaning, but only with what he
takes to be its certain, constant or "objective" mean-
ing,[2] and this he distinguishes from the uncertain,
variable ideas, emotional associations, attitudes, etc.
that use of the expression might evoke in different
people.[3] Frege's distinction between the sense of an

1. Geach and Black, p.61
2. ibid., p.60
3. ibid., pp.59ff.

expression and its "associated idea" is not a particular-
ly clear one, but it is perhaps more obvious when applied
to assertion-sentences.   The sense or fixed meaning of
an assertion-sentence according to Frege is the thought
it expresses, and by "thought" Frege means at least
what other logicians have called the "proposition",
"judgement", "statement", "logical meaning" expressed by
a sentence.[1] And in the Begriffsschrift (although it
does not generally represent Frege's mature opinion),
we discover a very clear indication of what Frege means
by the "objective" meaning of assertion-sentences. "In
my formalised language", he says, "...only that part of
a judgement which affects the possible inferences is
taken into consideratinn. Whatever is needed for a valid
inference is fully expressed..."[2] Like many logicians,
Frege holds that the objective meaning of a sentence -
that which affects its logical powers - is something that
can be sharply distinguished from any penumbral emotional
"colouring" that the wording of the sentence might have
for different people.[3]

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1. See The Thought, p.292, footnote 1; Geach and Black,
    pp.62ff, p.120
2. ibid., p.3
3. See The Thought, p.295ff; Foundations, sections 26,
    27, pp.33ff. Compare R. Carnap: Meaning and Nec-
    essity, second edition, p.6; L.S. Stebbing: A Modern
    Introduction to Logic, seventh edition, pp.17ff;
    M. Black: Critical Thinking, p.172, and "Questions
    about Emotive Meaning", chapter IX of Language and
    Philosophy.

But what further description can Frege give of this objective meaning that words, phrases and sentences express? Here we find a conflict that Frege never resolves. On the one hand, he is sure that the existence of sense is something objective, if only because statements ascribing sense to expressions seem to be objectively true or false. For example, it seems to be objectively true that "the morning star" has the same sense as "der Morgenstern", and a different sense from "der Abendstern". (We apparently assume this to be a fact when we translate "the morning star" by "der Morgenstern", rather than by "der Abendstern"). But on the other hand, Frege can see no straightforward way of describing what exactly is common to expressions held to have the same sense. And to appreciate Frege's difficulty here, we must remember that by the time he writes "On Sense and Reference", he has already firmly rejected a number of theories of meaning that might possibly explain the phenomenon of synonymity.

Firstly, Frege rejects the psychologistic theory that these supposedly "objective" meanings are really subjective images or ideas, if only because such a theory cannot explain the difference between privately exper-

ienced psychological states, such as pain, desire, and
hunger, and publicly known objects such as numbers.
"Numbers can be objects in common to many individuals",
Frege argues, "and they are in fact precisely the same
for all, not merely more or less similar mental states
in different minds".[1] Like the act-psychologists,
Frege holds that objects which can be known by a variety
of minds cannot be purely mental, and he sees no reason
why this does not apply to numbers and meanings, as well
as to sticks and stones. In his review of Husserl's
Philosophie der Arithmetik, he argues that "a man never
has somebody else's mental image..." and since "one
and the same thought can be grasped by many men", he
concludes that "the constituents of the thought...must
be distinguished from the images that accompany in some
mind the act of grasping the thought..."[2] In the Intro-
duction to The Foundations of Arithmetic, Frege lays down
the principle "always to separate sharply the psycho-
logical from the logical, the subjective from the object-
ive";[3] the sense of an expression is for him something
logical and objective; and so, in filling out his notion
of sense, he does not want to make any reference whatso-
ever to psychological phenomena.

1. Foundations, section 93, p.105. Compare sections 26,27,
   pp.33ff, and Introduction, p.x.
2. Geach and Black, p.79; compare pp.59ff and The Monist,
   XXVI(16) pp.182ff.
3. Foundations, p.x

Secondly, Frege rejects the "empiricist" theory that tries to explain sense or meaning entirely in terms of experienceable phenomena, or "external things". He rejects this theory of meaning also because it cannot provide him with a satisfactory account of the meaning of number-statements. Mill, for instance, argues that number-statements are about observed properties of agglomerations of physical things,[1] but Frege objects that this simple theory cannot plausibly be applied either to very large numbers, or even to the numbers 0 and 1.[2] Furthermore he offers the interesting argument that if meanings were to exist among external things in the world, then it would be possible to locate them somewhere in space. Now the meaning of the numeral "4" is the number 4, which for Frege is a specific object; but it is absurd, he suggests, to think of this object as existing anywhere in space. "To give spatial co-ordinates for the number 4", he says, "makes no sense".[3] Numbers, Frege concludes, are independently existing objects, but they exist neither in the private world of mind, nor in the public world of common experience.[4]

1. Logic, III.XXIV.5
2. Foundations, sections 7-10, pp.9-17. Compare sections 21-25, pp.27-33.
3. ibid., section 61, p.72
4. ibid.

Thirdly, Frege rejects the formalist theory of meaning, according to which the sense or meaning of an expression can be explained entirely in terms of the physical properties of the expression itself. This theory too, he argues, cannot satisfactorily explain the meaning of number statements. "The word 'one'", he says, is "...the proper name of an object of mathematical study";[1] and statements about the number one (e.g., 1x1=1) are about this object and not about any signs by which we refer to that object. In his Grundgesetze der Arithmetik, Frege makes a sustained attack on "formal arithmetic", arithmetic that is conceived as the arbitrary manipulation of signs, and argues instead that the only proper arithmetic is "meaningful arithmetic", which is concerned with the meanings of signs, and not merely with signs themselves.[2]

Having found the above theories wanting, Frege feels that he can account for the objectivity of sense

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1. Foundations, section 45, pp.58-59.
2. See "Frege against the Formalists", Geach and Black, pp.182ff. Compare Foundations, section 43, pp.54-55; The Monist, XXV(15)pp.492-493. For a recent attempt to explain sense in terms of the physical properties of signs, see P.D. Wienpahl: "Frege's 'Sinn und Bedeutung'", Mind LIX(50)pp.483-494, esp. pp.486ff. See also L.S. Stebbing: "Sounds, Shapes and Words", P.A.S., supp. vol. XIV, pp.6ff. P.F. Strawson: "Propositions, Concepts and Logical Truths", Phil. Quart., VII(57) pp.15-25; A.M. MacIver: "Token, Type and Meaning", Analysis, IV(37) pp.58-64.

only by postulating the existence of a realm of objects
which can be known by thought but not experienced by
the senses. Although Frege says very little about
this realm, the evidence of his belief in it is quite
clear. For one thing, he says in The Thought that
sense "belongs neither to my inner world as an idea
nor yet to the outer world of material perceptible
things",[1] and so he concludes that we "must" recognise
the existence of a "third realm" over and above the
private mental world and the public material world.[2]
At another point, he suggests that this realm is "an
objective domain which is not a domain of actual things".[3]
The view suggested but not at all developed here is
that the senses of words, phrases, and sentences are
Zwischendinge, beings which are neither mental nor
material, but which are nonetheless "real" in some
sense, enjoying perhaps the status of what Meinong calls
"Quasisein". But at this point – which is the very
beginning of Meinong's investigations – Frege stops.
Perhaps he foresaw the most obvious consequences of
this line of thought, that it would commit him to the

1. The Thought, p.308
2. ibid., p.302
3. The Monist, XXVI(16)p.187

arbitrary creation of metaphysical objects which he so carefully tried to avoid in his mathematical and logical researches.[1] Perhaps too he really felt misgivings about his conclusion that a third realm "must" be recognised. The fact remains, however, that having postulated the existence of independently existing non-empirical meaning-objects, Frege hesitates to explore their possibilities, and for a thorough investigation of such meaning-objects, we must now turn to the work of Alexius Meinong.

II. Meinong's Theory of Objects.

Meinong's starting point is his reaffirmation of the Brentanian theory that "es allem Psychischen wesentlich ist, einen Gegenstand zu haben..." and his admission that for a long time he had agreed with Brentano "dass Inhalt und Gegenstand ziemlich das Nämliche sei". Now however, he states, he no longer believes that

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1. See Foundations, sections 45ff, pp.58ff; sections 97ff, pp.108ff.

"die beiden Ausdrücke promiscue gebrauchen, also eigent-
lich des einen derselben entraten zu können".[1] Brentano's
use of the expressions "content" and "object" he argues
is ambiguous, because it confuses two quite different
things: firstly, the real external object in the world
to which our mental acts are directed; and secondly,
the internal mental object (image, idea, etc.,) by which
our thought is directed to the external object.

These two sorts of objects must be sharply dist-
inguished Meinong thinks for the following reasons.
Firstly, we can think of and therefore represent to
ourselves things which do not exist at present, such
as the golden mountain and past and future events; and
we can even represent things which cannot exist, such
as the round square. But even though these objects do
not exist, the Vorstellung, the representation of these
objects exists, and therefore something must be repres-
ented in this act. In cases like these, Meinong con-
cludes, the act must represent a content even though
there exists no object of the act. "Wer aber wird",

1. Ueber Gegenstände höherer Ordnung, Gesammelte Ab-
    handlungen, vol. II, (hereafter referred to as Geg.
    hoh. Ord.) p.381. For discussions of this article
    see G. Dawes Hicks: "The Philosophical Researches
    of Meinong", Mind, XXXI(22) pp.1-30 (hereafter re-
    ferred to as Dawes Hicks), pp. 18ff; and B. Russell:
    "Meinong's Theory of Complexes and Assumptions"
    (1) Mind, XIII(04)pp.204 ff. See also Russell: On
    the Nature of Acquaintance", The Monist, XXIV(14)
    pp.447-448.

he asks, "...annehmen wollen, dass zwar die Vorstellung existierte, ihr Inhalt aber nicht?"[1]

Secondly, he argues, we can think of "things" such as equality, diversity, or the difference between red and green. These are certainly not objects existing like houses, trees and mountains, but they nevertheless are <u>there</u> in some sense, and are thought about.[2] Here again we seem to have what Brentano would call "die Beziehung auf einen Inhalt" but not "die Richtung· auf ein Objekt", simply because there <u>is</u> no object.

Thirdly, Meinong points out that Brentano's doctrine of intentional inexistence requires both that the object be part of a mental act, and that it be a real thing. But when we think of mountains in Asia, the actual mountains do not become part of our mental act. Similarly an object we think of may be blue, warm and heavy, but the mental act directed towards that object cannot be blue, warm and heavy.[3]

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1. <u>Geg. höh. Ord.</u>, p.382
2. <u>ibid.</u>, p.382.
3. <u>ibid.</u>, pp.383-384. Compare <u>Dawes Hicks</u>, pp.18-19.

These considerations lead Meinong to distinguish
between the mental object immanent in the psychic act,
that is, the content of the act, and the real object
existing transcendent in the world, that is, the object
strictly so-called. For Meinong the content is that
which is peculiar to each idea, and which distinguishes
one idea from another; the act-element is what is common
to all ideas, and what distinguishes them as ideas.
Note that Meinong does not think that the content is a
mental picture or image of the object, although he has
been frequently credited with this view.[1] The relation
between a content and its object is an "ideal relation",
so that when I think of the Himalayas, for example,
the content of my thought is related to the mountains
in Asia only because it necessarily refers to or points
to the Himalayas rather than to any other object.
Meinong's doctrine recalls that of William James who
compares the relation between my knowledge of tigers
in India and the actual tigers with the relation of
fitting that can hold between a stone in one field and
a hole in another. Unlike Meinong, however, James

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1. For example, by Bosanquet: Three Chapters on the
   Nature of Mind, pp.44, 50: By Stout: Studies in
   Philosophy and Psychology, p.355; and by Russell:
   The Analysis of Mind, pp.17ff. See J.N. Findlay:
   Meinong's Theory of Objects (hereafter referred to
   as Findlay), pp.35ff.

regards the self-transcendence or pointing function
of our ideas as something "as external and adventitious
as any that nature yields".[1]

Having found that the content or immanent object
of thought may exist even without a corresponding trans-
cendent object, Meinong is led to reject the "existent-
ial view" of objects. According to this point of
view - essentially Brentano's - affirmative existential
judgements are true only when the object referred
actually exists in the world, and these judgements are
false if the object does not exist in this way. But if
some judgements have non-existent objects then it
must be false to argue, with Brentano, that all judge-
ments are directed towards "Dinge" in the sense of
"real objects".[2] So the supporters of the existential
view face an impossible task in trying to explain how
a judgement-act can be directed towards a real object
which does not really exist.

To avoid the difficulties facing Brentano's
"existential view" of objects Meinong proposes the

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1. See "The Tigers in India", reprinted in R.B.
   Perry's edition of Pragmatism, p.364.
2. See C.D. Broad's critical notice of Meinong's
   Ueber Annahmen, Mind, XXII(13) pp.90-102,
   (hereafter referred to as Broad), esp. pp.95ff.

"non-existential view", according to which every judgement and every act of thought generally has an object but not necessarily an _existent_ object.[1] According to Meinong, it is only our "besonders leb-hafte Interesse am Wirklichen" that prompts us to assume that thought can be directed only to things which exist; but in fact, he argues, we think of and make judgements about all sorts of things that cannot be said to "exist" in the sense that houses, trees and mountains "exist".[2] The relations of similarity and diversity, for example, are somehow _in_ the world - they are features of real things - but they cannot be said to _exist_ as real objects in their right. Similar-ly, numbers must be "real" in some sense, but they certainly have no existence independent of things that have quantitative features. Therefore, Meinong con-cludes, we are aware of many things that have no _exist-ence_ as real objects or things, but we should at least recognise their _subsistence_ (_Bestand_) in the real world.[3]

1. _Ueber Gegenstandstheorie, Gesammelte Abhandlungen_, vol. II (hereafter referred to as _Gegth._)pp.425ff.
2. Compare Dawes Hicks: _Critical Realism_, p.138
3. _Gegth._, p.487. In his review of Meinong's edition of _Untersuchungen zur Gegenstandstheorie und Psychologie_, Russell completely misses Meinong's distinction between _sein_ and _bestehen_. _Mind_, XIV (05) p.531, footnote 1.

Furthermore, Meinong argues, we think and
talk about objects which neither exist nor subsist.
Not only are there objects like the golden mountain
which could but do not in fact exist, but there are also
objects like the round square which we know by virtue
of their nature cannot exist. In view of our knowledge
of such objects, Meinong concludes that Brentano's
conception of an object as strictly that which exists
as a real thing is far too narrow: "Aber die Gesamtheit
dessen, was existiert, mit Einschluss dessen, was
existiert hat und existieren wird, ist unendlich klein
im Vergleiche mit der Gesamtheit der Erkenntnisgegen-
stände..."[1]

The discovery that the class of existent objects
was only a segment of the entire range of objects as
such leads Meinong to propose his celebrated Gegen-
standstheorie, the a priori study of pure objects. By
calling it the study of "pure" (rein) objects, Meinong
means two things: firstly, Gegenstandstheorie will
ignore the fact that objects of thought are thought of
by people, and hence it will avoid all reference to

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1. Gegth., p.486.

psychology and psychologistic theories of knowledge.
Here no doubt, Meinong is reaffirming Brentano's ideal
of a realistic and objective account of what we know,
judge, apprehend, believe, etc., Secondly, Gegenstands-
theorie will simply refuse to consider whether objects
exist or not, and it will study all objects of knowledge
regardless of their ontological status. For this
reason, it will be a much more comprehensive study than
traditional metaphysics with its preoccupation with
reality, and real objects.[1] Instead of studying the
reality of objects, Meinong studies what he calls their
Aussersein.

The theory of Aussersein is the most important
part of Meinong's philosophy of logic. It is also the
most notorious, and the most misunderstood. As Findlay
points out, it is commonly believed that in the theory
of Aussersein, "Meinong attributed subsistence to
chimeras"[2] and this belief is perpetuated in facetious
references to the "Meinongian Underworld"[3] and even

1. Gegth. p.486. Compare Dawes Hicks, p.22, Findlay,
p. 42 and pp.218ff, and Russell's review of Meinong's
Ueber die Stellung der Gegenstandstheorie im System
der Wissenschaft, Mind, XVI (07) pp.436 ff.
2. Findlay, p.47
3. See, for example, J.O.Urmson : Philosophical Analys-
is, p.7.

(quite recently) to "Meinong's jungle"![1] As Jackson

points out, the theory is very inadequately treated by

Broad and Dawes Hicks whose articles were two of the

most important accounts of Meinong's views available

before the appearance of Findlay's book;[2] and Broad

for one is certainly mistaken in saying that "Aussersein"

is the name of "some third kind of being" which "has

no negative".[3]

      Nowhere, as far as I can ascertain, does Mein-

ong express views such as these. Findlay does report

Meinong as saying that he "originally believed in a

variety of being possessed even by chimeras"[4] but he

gives no references, and it seems that Meinong first

describes this Underworld-theory only for the purpose

of disowning it. The theory commonly ascribed to Mein-

ong actually receives its classical statement from

Russell, in The Principles of Mathematics, where he says:

> "Being is that which belongs to every con-
> ceivable term, to every possible object of
> thought - in short to everything that can
> possibly occur in any proposition, true
> or false, and to all such propositions them-
> selves....'A is not' must always be either

1. John Williamson: review in The British Journal of
    Aesthetics, 2(62) p.181. See also I. Berlin: "Logical
    Translation", P.A.S., 50(49/50) p.171.
2. B. Jackson: review of Findlay, Mind XLIII(34)pp.
    374-375;
3. Broad, p.94
4. Findlay, p.47

> false or meaningless. For if A were
> nothing, it could not be said not to be...
> Numbers, the Homeric gods, relations,
> chimeras, and four-dimensional spaces all
> have being, for if they were not entities
> of a kind, we could make no propositions
> about them. Thus being is a general attrib-
> ute of everything, and to mention anything
> is to show that it is."[1]

Meinong calls this most general sort of being
"Quasisein",[2] and he rejects the theory of _Quasisein_
because he cannot accept the consequence that there is
a variety of being which has no corresponding non-being,
which allows no sense to sentences of the form "X is not".
In other words, Meinong specifically rejects the view
that all possible objects of thought have any common
being, or occupy any particular realm or "Underworld";
but despite this fact, such a theory is still ascribed
to Meinong even as recently as W. and M. Kneale's
The Development of Logic, (1962).[3] Even if Meinong
held the theory of _Quasisein_ up to the time he wrote
Ueber Gegenstandstheorie (1904), it would represent his
mature views no more than the Brentanian identification
of mental content and object, because he rejects both

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1. section 427, second edition, p.449.
2. _Gegth._, pp.491-492.
3. See p.262.

doctrines at the same time. What sort of status, then, does Meinong attribute to the pure objects of thought?

To understand the answer to this question, we must begin from a basic assumption of the theory of objects: that the question of what an object is can be distinguished from and studied independently of the question whether that object is.[1] Following Mally,[2] Meinong draws a sharp distinction between the Sosein of an object, its so-being, the complement of its known properties, and its Sein, its actual existence. That the round square is both round and square, can be known a priori, Meinong argues, regardless of whether we know it has actual existence or Sein. Similarly, the golden mountain can be known as a pure object to be both golden and mountainous, even though we know that no such object actually exists. It is such necessary knowledge as this, knowledge of Sosein, or of essences if you like, that constitutes the science of Gegenstandstheorie, the theory of pure objects.

Assuming that the pure object can be known to have various determinations or properties constituting

1. Gegth., pp.195ff.
2. See Findlay, p.110.

its <u>Sosein</u> even though it has no actual existence,
Meinong concludes that existence is not one of the
universal, logically prior or fundamental properties
of objects.[1] And if the object can be adequately char-
acterised purely in terms of its <u>Sosein</u>, then existence
must only be one of its <u>accidental</u> properties; that is,
in Meinong's language, the object as such must be in-
different to or <u>outside</u> existence. This then is what
Meinong means by "Aussersein": pure objects are not
necessarily existent; they are <u>outside</u> being. Objects
that are <u>Aussersein</u> may be or become existent, subsistent,
or non-existent, and the mere fact that objects can en-
joy these various states shows that none of them is
essential to objects.[2]

In his review of <u>Untersuchungen zur Gegen-
standstheorie und Psychologie</u>, Russell offers two objec-
tions to the theory of <u>Aussersein</u>. Firstly he argues
that the theory "involves denying the law of contradic-
tion where impossible objects are constituents".[3]
According to Russell, to say that the round square is
both round and square is to say that it both <u>is</u> and

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1. In a way, Meinong here reaffirms Mill's distinction
   between the "is" of predication and the "is" of
   existence.
2. See <u>Findlay</u>, pp.50ff.
3. <u>Mind</u>, XIV(05) p.533.

is not round (or is and is not square), and such an
admission of impossible objects, he thinks, will pre-
clude the universality of the laws of logic. To this
Meinong simply replies that impossible objects do not
constitute an important exception to the laws of logic
because these only apply to actual or possible objects.[1]

Secondly Russell suggests the difficulty that
if the round square is really round and square, then
equally the existent round square is really existent.
To this Meinong replies that since the round square is
a pure object it is or has Aussersein, and this means
that predicates like "existent" are quite inapplicable
to it.[2] Russell then argues that Meinong "seems to over-
look the fact that it is of propositions (i.e., of
"Objectives" in Meinong's terminology), that the law of
contradiction is asserted. To suppose that two contra-
dictory propositions can both be true seems equally im-
possible whatever their subjects may be".[3]

But this point does not seem to affect Mein-
ong's position at all. His argument that impossible

1. Mög. u. Wahr., p.278.
2. loc. cit., See also Findlay, pp.104-105.
3. Russell: review of Ueber die Stellung der Gegen-
   standstheorie, Mind, XVI (07), p.439.

objects are exempt from the law of contradiction would
apply equally to objectives involving impossible objects,
because these too for Meinong are Aussersein. As Dawes
Hicks points out, Meinong "appears...to be saying that
to suppose that two contradictory propositions can both
be true may not be inadmissable when their subjects
are impossible objects";[1] and the same writer goes on
to deny Russell's claim that Meinong's theory does
overlook the fact that the law of contradiction concerns
propositions. On Meinong's view propositions about im-
possible objects or, as he puts it, objectives involving
impossible objects are exempt from the law of contra-
diction because this law only applies where objectives
are judged to be true or false. Unlike Brentano,
Meinong does not think that truth and falsity are pro-
perties of the judgement act,[2] nor does he assume with
Russell and many other logicians that propositions,
logical objects, or what he calls "Objektive" are all

necessarily true or false. Objectives considered as
pure objects of thought are Aussersein, and as such
cannot be said to be either true or false. Thus he

1. Dawes Hicks, p.25, footnote 1.
2. See Mög. u. Wahr., p.38.

concludes:

> "Es gibt sich daraus, dass Wahrheit unter
> sonst günstigen Umständen Objektiven
> zunächst nur dann zugeschrieben werden kann,
> wenn man sie als durch ein geeignetes
> Erlebnis erfasst in Betracht zieht. Was
> jemand behauptet oder bestreitet, glaubt
> oder 'nicht glaubt', vermutet oder auch
> nur annimmt, wird eventuell in ungezwungen-
> ster Weise als wahr zu bezeichnen sein.
> Insofern ist Wahrheit die Eigenschaft von
> Erfassungsobjektiven...Zusammenfassend ist
> also zu sagen: wahr im, wie mir scheint,
> natürlichsten Wortsinne heissen Objektive,
> sofern sie Erfassungs objektive sind,
> denen zugleich Tatsächlichkeit zukommt". [1]

By means of this argument, Meinong concludes
that impossible objects like the round square can be
determined by various objectives expressing its <u>Sosein</u>,
and that these objectives <u>considered as pure objects of
thought</u> are unaffected by and are exempt from the law
of contradiction which applies only to true and false
objectives. So Meinong can answer Russell's objection
at least in part: there is a way in which the round
square can be both round and square, and that is as a
pure object with <u>Aussersein</u>. But this answer throws up
another problem as to how we could ever <u>know</u> that the
round square is both round and square, that is, how we

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1. <u>Mög. u. Wahr.</u>, p.40.

could ever apprehend the objectives involving such impossible objects, if as in Meinong's view the acts of apprehension and judgement always concern objectives possessing truth or falsity.

Rightly enough, Russell treats the round square as a sort of test-case for the theory of Aussersein, and for Meinong's theory of logical objects in general. But his criticisms are severely compromised by his misleading identification of Meinong's objectives with what he calls "propositions". He says, for example: "this Objective of the judgement is what (following Mr. G.E. Moore) I have called a proposition; it is to the Objective that such words as true and false...etc. apply".[1]

As Findlay points out, Meinong's objectives are quite unlike Russell's propositions, even if they are both conceived as the objects to which acts of judgement are directed, and they are both regarded as the meanings of indicative sentences.[2] Meinong's theory of objectives and the theory of propositions that Russell derives from Moore are both theories of logical objects, but for

1. "Meinong's Theory of Complexes and Assumption" (11), Mind, XIII(04) p.350. See also p.206.
2. See Findlay, pp.83-84.

all that, very different theories. The propositions
that Russell speaks of in The Principles of Mathematics
have being whether they are true or false,[1] but only
some of Meinong's objectives have being or subsistence,
that is, those possessing the modal property of Tät-
sächlichkeit, or factuality.[2] Furthermore, Meinong re-
gards objectives with factuality as being identical
with facts, and although Moore maintains a rather simi-
lar view in his early article "The Nature of Judgement,[3]
it is doubtful whether Russell himself would ever accept
a simple identificatinn of his propositions with facts.
It is dangerous, however, to generalise about what
Russell thinks of propositions, because, as I shall
show later, his views on the matter regularly change,
and his use of the expression "proposition" is far from
univocal. But the simple identification of Meinong's
precise expression "Objektive" with the traditionally
ambiguous expression "proposition" is perhaps typical
of the hasty treatment that the doctrine of Aussersein
has received from Anglo-Saxon philosophers. Far from
being a crazy fantasy of half-real chimeras, Gegenstands-
theorie is an ambitious and thorough attempt to develop

1. Second edition, pp.449-450.
2. See Mög. u. Wahr., pp.90ff.
3. Mind, VIII(1899) pp.176ff.

a realistic or objectivist theory of logical meanings,
from the standpoint of Brentanian intentionality.

Although Meinong agrees with Brentano that every
act has an object, he does not believe that objects
of all acts are of the one type. In particular,
Meinong rejects Brentano's identification of the ob-
jects of conception (Vorstellung) and judgement (Urteil).
When we think of a high mountain, he argues, we think
of something which is an object and which could exist
in its own right as an individual thing in the world.
But when we judge that the mountain is high, we direct
our thought towards something which could never exist,
but merely subsist.[1] The object, the high mountain
can exist, but the objective, that the mountain is
high can only be true or false. Therefore, Meinong con-
cludes, there is an ambiguity in Brentano's use of
"Gegenstand" and "Objekt" which can refer to either an
object, "was beurteilt wird", or to an objective,
"was geurteilt wird", "angenommen", etc.[2] Meinong
regards both sorts of accusatives as objects, and so to
avoid confusion Findlay suggests that those capable of

1. See Geg. höh. Ord., p.395; Mög. u. Wahr., pp.168-169.
2. See Dawes Hicks, p.27; Findlay, p.69

individual existence to be called "objecta", to dist-
inguish them from objectives, objects of thought which
are not capable of individual existence.[1]

According to Meinong, objectives constitute
by far the largest and most important part of our know-
ledge, and in his philosophy the other mental acts of
representation and interest tend to pale into insig-
nificance compared with the acts of judging, supposing,
etc. which concern objectives. All real knowledge, he
argues, involves some attitude towards objectives. He
rejects Brentano's view that conception and understand-
ing are directed towards objecta, on the ground that we
do not conceive or understand the object x, but that
we conceive and understand the objective that x is
so and so.[2] Vorstellung, for Meinong, becomes a very
minor sort of mental act, being no more than a bare
passive experience of or "acquaintance" with an objectum.
Similarly Meinong is inclined to extend the province of
judgement and supposition by incorporating into it what
Brentano had distinguished as the class of interest-acts.
In Ueber Annahmen, for instance, Meinong argues that
when we desire something we really desire its existence,

1. Findlay, p.67.
2. Compare G.F. Stout: Analytic Psychology, 4th edition,
    vol. 1, p.111.

and when we think of something's existence we are really
thinking of an objective involving that thing.[1]

Meinong's answer to the question, What are
logical meanings? is therefore very different from that
of his teacher: Brentano had argued that objects of
judgement are identical with the objects of representa-
tion and interest. Meinong on the contrary holds that
logical objects are objectives, a distinctive and yet
most common class of mental objects; that is, those
objects which can be the meaning of assertion-sentences,
which can be believed, judged, supposed, doubted, etc.,
and which can be distinguished from all other objects,
from linguistic symbols that express them and from
mental acts that refer to them, by the fact that they
alone can be true or false, or in Meinong's language,
by the fact that they alone can have or lack the property
of factuality. This then is Meinong's contribution to
philosophy of logic; he completed Brentano's work by
isolating the notion of logical object, and himself
made a big step towards its clarification by holding
that it could be characterised not just extrinsically,
in linguistic or psychologistic terms, but intrinsically,

1. See Broad, p.95.

by reference to the fact that logical objects alone are capable of having a truth-value.

In his theory of objectives, Meinong brings our attention to two theses which were to be much discussed in this century:

first, that the properties of objectives can be studied independently of their subsistence, factuality, and their relations to acts of thought. In British terms, this became the view that propositions as logical meanings can be studied and characterised independently of the language by which they might be expressed, their actual truth-value, and of their relation to the processes of human knowledge and belief.

Second, that (virtually) all knowledge is knowledge of objectives. For British realists (for example, early Moore and Russell, Stout, Dawes Hicks, and later John Anderson) this became the view that "all knowledge is of propositions and of other things only as forming constituents of propositions. To know is always to know 'that.....'". This statement comes from G.F. Stout who ascribes it to T.H. Green;[1] and this

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1. "Some Fundamental Points in Theory of Knowledge" (1911), section 4, reprinted in Studies in Philosophy and Psychology, p.369.

connection between Stout and Green considered together with Stout's study of Brentano and Meinong reveals a very interesting fact of philosophical history: that the realistic theory of propositions which has been so influential this century not only springs from the work of early Moore and Russell, but also draws on two very different streams of philosophic thought - Austrian act-psychology, and British Neo-Hegelianism.

Chapter 4

FREGE'S THEORY OF SENSE AND REFERENCE

In the previous chapter, I tried to show that Meinong's _Gegenstandstheorie_ is an important contribution to philosophy of logic, not only because it clearly isolates the question, What are logical objects? but also because it thoroughly elaborates a metaphysical theory of meaning that many philosophers - including Frege - have considered as a possible answer to this question. For the purpose of illustrating the metaphysical theory of logical objects, I have concentrated on Meinong's system, because it best represents that approach to philosophy of logic. However, in order to criticise the metaphysical approach, I confine my attention to Frege's theory of sense and reference, for three reasons.

Firstly: unlike Meinong's _Gegenstandstheorie_, Frege's theory of sense and reference has exerted a wide influence during this century on philosophers, logicians, and mathematicians interested in metaphysical or "intensional" theories of meaning; and many who would reject Meinong's views out of hand have nevertheless wondered whether the sense and reference argument is a

valid instance of "epistemological premises used in the extraction of ontological conclusions".[1] In other words, many have wondered whether Frege has proved from our knowledge of certain sorts of statements that there must exist certain sorts of metaphysical meaning-objects.

Secondly: even philosophers who might suspect metaphysical theories of logical objects have accepted Frege's account of sense and reference as a sound contribution to theory of meaning. Wienpahl, for example, is reluctant to admit that Frege has proved that there is a "subsistent entity" called "sense", but he nevertheless says: "Frege correctly observes that there is a cognitive difference between 'a=a' and 'a=b'. He demonstrates that the properties of identity require a distinction of sense and reference to account for this difference".[2]

Thirdly: even though I shall argue that the sense and reference argument is invalid, it still merits attention, I think, because it makes important suggestions

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1. Morton White: Towards Reunion in Philosophy, pp.35-36.
2. "Frege's 'Sinn and Bedeutung'", Mind, LIX(50)p.487.
   My underlining. Compare W.V.O. Quine: "Two Dogmas of Empiricism", Phil. Rev., LX(51) p.21.

about the meaning of referring expressions and their
use in assertion-sentences.

Frege's sense and reference argument may be
summed up as follows.[1] Statements of identity or equal-
ity such as "a=b", "a is the same as b", and "a and b
coincide" have two important properties which a theory
of identity must take account of.

Firstly, identity statements are synthetic
not analytic in meaning. As Frege says, "statements of
the form a=b often contain very valuable extensions of
our knowledge and cannot always be established a priori".[2]
Identity statements therefore express what Frege calls
"actual knowledge" ("wirkliche Erkenntnis").[3]

Secondly, identity statements are somehow con-
cerned with the objects designated by their constituent
referring expressions, rather than with those expressions
themselves. Identity statements express discoveries and
extensions of our knowledge; and in making an identity
statement we aim to "refer to the subject-matter" of our

1. See Geach and Black, pp.56-57.
2. ibid., p.56
3. See Zeitschrift für Phil. und phil. Krit., C(1892) p.
   26. Compare Geach and Black, p.57.

knowledge or of our discovery and not to its "mode of designation", the language in which the knowledge or discovery is expressed. Identity statements therefore also express what Frege calls "proper knowledge" ("eigentliche Erkenntnis").[1] The aim of Frege's sense and reference argument is to develop a theory of identity statements which is not inconsistent with his view – a view most people would allow – that such statements express knowledge which is both "actual" and "proper". The following outlines the argument by which Frege tries to establish a theory of identity satisfying these two requirements.

Take the statement "The morning star is the same as the evening star" which asserts the identity of the morning and evening stars. This statement according to Frege contains actual knowledge because it is synthetic and gives us positive information about the planet Venus. Furthermore the statement contains proper knowledge because it is about Venus itself and not its names. Identity is presumably a relation, he argues, and the problem is to decide what are the objects between which this relation is asserted to hold. Frege considers two possibilities.

1. loc. cit.,

First he suggests that the identity statement states a "relation between objects";[1] a relation, that is, between the actual heavenly bodies the morning and evening stars. If this were so, the statement "the morning star is the same as the evening star" would express proper knowledge about the object Venus which Frege takes to be the true "subject-matter" of the statement. This interpretation then would satisfy the second of the requirements specified above for a theory of identity statements. But it seems that if we assume this first possibility we must fail to meet the first requirement — that the identity statement is synthetic and contains actual knowledge. If on this first interpretation the statement is really true, Frege argues, then the two referring expressions "the morning star" and "the evening star" must refer to the same object. Both expressions then would really be names of the same object Venus, and being so, would be mutually interchangeable, one name for a thing being as good as another. Substituting "the morning star" for "the evening star" in the original identity statement, we obtain the analytic statement "the morning star is the same as the morning star". But since this latter statement is derived from the

1. Geach and Black, p.56

original statement merely by substituting presumably
alternative names, the identity statement must be equiva-
lent in meaning or as Frege says in "cognitive value" to
the analytic statement. So on the first interpretation
the identity statement seems to become analytic. But
we believe that the statement "the morning star is the
same as the evening star" is not analytic but synthetic.

Having reached this unsatisfactory result,
Frege tries the second possibility that the identity
statement states a relation "between names or signs of
objects";[1] that is, a relation between the referring ex-
pressions "the morning star" and "the evening star". On
this second interpretation the statement asserts that
these expressions "designate the same thing";[2] that is,
that they are both names of the same object. Read in
this way, the original identity statement certainly sat-
isfies the first requirement of being synthetic, but now,
Frege argues, it fails to satisfy the second requirement
that it must express proper knowledge about the planet
Venus. According to this interpretation, the statement
expresses a discovery not about Venus but about its names,
its mode of designation. So this interpretation also

1. Geach and Black, p.56.
2. loc. cit.,

fails to account for the two properties of identity statements.

Having found both possibilities unsatisfactory, Frege does not look around for new ones. Instead he returns again to the first suggestion that identity is a relation between objects, because he is reluctant to give up the view that the identity statement in question is somehow about the planet Venus itself. To maintain this theory he has to avoid the conclusion reached in the above argument that this interpretation makes the statement analytic. He must therefore avoid the view that the expressions "the morning star" and "the evening star" are merely interchangeable names. This he supposes cannot be done as long as the _meaning_ of these expressions is identified with their _reference._ These expressions have the same reference; and if they mean no more than what they refer to, these expressions must by synonymous and therefore interchangeable.[1]

Consequently Frege feels constrained to reject the identification of the meaning or "content" of an expression with its reference, and so instead he adopts the view that the meaning of "complete" expressions consists

1. See _Begriffsschrift_, section 8, _Geach and Black_, pp. 10-12.

not of one but of two elements: that is, for example, in addition to having the same reference, the expressions "the morning star" and "the evening star" also have what he calls a "sense" ("Sinn"), a part of their meaning in respect of which they differ. By assuming this extra dimension of meaning, Frege thinks he can retain his view that both expressions are names of the same object, Venus, without being forced to the conclusion that they are synonymous and interchangeable. And if he has avoided this conclusion he is no longer forced to admit that the statement of Venus's identity is analytic in meaning, or has the same cognitive value as an analytic statement. So Frege now feels he has a theory which in principle satisfies the two requirements laid down for a theory of identity: statements of the form a=b express proper knowledge because they are about the objects named by their constituent referring expressions "a" and "b"; and they express actual knowledge because these referring expressions differ in sense even though they have the same reference.[1]

I take the above to be the gist of that argument of Frege's which has been regarded as proving the

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1. Concerning Frege's use of the expression "Bedeutung" in this argument, see W. and M. Kneale: The Development of Logic, chapter VIII, section 2, pp. 493 ff.

need for some sort of distinction between what an ex-
pression means and what it stands for or refers to.
In commenting on this argument I wish to establish the
following theses:

firstly, that the argument leading to the
distinction between sense and reference is fallacious,
and that Frege has not really shown the need for such
a distinction;

secondly, that Frege's theory of meaning is
basically a referential or denotationist one, and
that the notion of sense does not properly replace this
theory of meaning but merely weakens it, leaving it in
an unstable, transitional and incoherent state; and

thirdly, that the removal of these weaknesses
requires the rejection of the sense and reference dis-
tinction as it is conceived by Frege. Frege's article
I shall argue contains important suggestions towards a
different though related theory of sense and reference,
and in the hope of obtaining more satisfactory answers
to some of Frege's questions, I shall attempt to develop
these suggestions in the last part of this chapter.

Frege introduces the notion of sense because
he assumes that on a purely referential theory of

meaning, statements of the form "a = b" become virtually
synonymous with those of the form "a = a". This assump-
tion appears in the following passage which is crucial
for the sense and reference argument:

"Now if we were to regard equality as a relat-
ion between that which the names 'a' and 'b' designate,
it would seem that a = b could not differ (in cognitive
value)[1] from a = a (i.e., provided that a = b is true".[2]

Frege here suggests that the pure referential
theory of meaning such as he held in the Begriffsschrift
leads to the following absurdity: that if a=b is true,
then the expressions 'a' and 'b' designate the same ob-
ject and therefore must be merely alternative names for
that object. If so, they must designate the same ob-
ject in the identity statement a=b and hence they must
be interchangeable here also. By substitution then we
seem to be able to convert the synthetic statement a=b
into the analytic statement a=a which is presumably
equivalent in meaning to the original statement, because
it differs only in using the other of a pair of supposed-
ly alternative names.

1. See Geach and Black, pp.56, 78.
2. ibid., p.56.

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The premise of this argument that I wish to

criticise is that in the sentence "a=b" which expresses

the identity statement[1] the letters 'a' and 'b' do

refer to the same object.[2]

Let us imagine a person who genuinely wants

to know whether the morning star _is_ the same as the

evening star. Now if we asked this person what he is

referring to when he uses the expression "the morning

star", he would naturally reply that in using the expres-

sion he intends to refer to the star that appears in

the morning sky. Similarly in using the expression "the

evening star", the inquirer would be referring to the

star that appears in the evening sky. So if pressed

to elucidate his question, our inquirer could quite

naturally say that in asking whether the morning star

is the same as the evening star he is referring to ob-

jects that appear respectively in the morning and even-

ing skies, and that he wants to know whether in fact

the two are identical or not. So our example shows that

at least when the sentence "is the morning star the

same as the evening star?" is used to express a question

of fact, the phrases "the morning star" and "the evening

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1. Frege does not observe the sentence/statement distinc-
   tion in this argument.
2. See _ibid._, pp.29, 44, and 78 where Frege asserts
   this premise.

star" are <u>not</u> intended to refer to the same object,
and presumably therefore do not have the same reference
<u>in this sentence</u>.

But in order to convert the synthetic iden-
tity statement into a tautology, Frege requires the
premise that the two referring expressions <u>do</u> have the
same reference in this sentence. This premise can be
refuted formally as follows: if the inquirer deliberate-
ly used the expressions "the morning star" and "the
evening star" to refer to the same object, he would
know or he would be assuming that the morning star and
the evening star are identical; since in raising the
question of their identity he shows that he does <u>not</u>
know or assume that they are identical, it follows by
<u>modus tollens</u> that the inquirer is not using the ex-
pressions to refer to the same object. In other words,
if the expressions <u>were</u> intended to have the same ref-
erence there would be no <u>point</u> in asking whether the
objects referred to are identical.

So in any sentence which (correctly or other-
wise) expresses a relation of identity, it is necessar-
ily presupposed that the constituent referring expressions

do not have the same reference; and if they do not have
the same reference, they cannot be substituted one for
the other. But without assuming this substitutability
Frege cannot infer that true synthetic identity state-
ments are equivalent to analytic statements, or that
sentences expressing identity statements are identical
in meaning with sentences expressing tautologies.
Frege therefore fails to prove that this absurdity nec-
essarily follows from a purely referential theory of
the meaning of identity sentences, and so he fails to
show that there is any real need for introducing the
notion of sense. In other words, Frege has not shown
that the purely referential theory of meaning necessar-
ily obscures the difference between statements of the
form a=b and those of the form a=a, and so he has not
shown that the notion of sense must be introduced to
preserve the difference.

The above argument in itself I think refutes
Frege's conclusion that the difference between the cog-
nitive values of a=b and a=a "can arise only if the
difference between the signs corresponds to a differ-
ence in the mode of presentation of that which is des-
ignated", that is, only if the difference between the

signs corresponds to a difference between their sense.[1]
But there is a further deficiency in Frege's argument
which makes it impossible for Wienpahl and others to
regard it as a proof of the sense and reference theory
of meaning: for even if it were valid, Frege's rejection
of the Begriffsschrift theory of reference does not nec-
essarily imply the truth of the conclusion quoted above
that Frege draws in "On Sense and Reference". The use
of "only " in the above quotation is quite unjustified,
because it suggests that Frege's theory of sense and
reference is the only possible theory which will satisfy
the specified requirements of a theory of identity
statements. Frege does not even consider whether there
might be possible alternatives to the two theories he
discusses, and he adduces no argument whatsoever to show
that these two exhaust all the possibilities. But such
an argument would be essential if Frege wanted to prove
that the meaning of identity can only be explained by
the theory of sense and reference. His rejection of
other theories of reference as implied in the above
quotation is simply dogmatic and not critical.

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1. See Geach and Black, p.57.

In order to show where Frege went wrong in
the sense and reference argument I now turn to my second
thesis: that despite the introduction of the notion of
sense, Frege's theory of meaning remains basically the
referential, denotationist or nominalist one developed
in the Begriffsschrift. The theory of sense is merely
superimposed on the earlier theory of meaning, and by no
means supersedes it in Frege's thought. Frege's theory
of reference never changed: "reference" as strictly
used in the later articles "On Sense and Reference",
"On Concept and Object", etc., means exactly what in
the earlier Begriffsschrift is variously and indiffer-
ently termed "sense",[1] "content",[2] "meaning",[3] and "the
object" that a "symbol...stands for".[4] Frege's earlier
and later theories of meaning are positively linked by
the common assumption that referring expressions are
expressions which refer to objects, where the phrase
"refer to objects" is understood such that:

(a) if two expressions refer to the same
     object they necessarily have the same
     reference. This was Frege's doctrine in

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1. Geach and Black, p.1.
2. ibid., p.2, pp. 10-12.
3. ibid., pp. 1, 18.
4. ibid., p. 12.

the Begriffsschrift, and it is directly
incorporated into the later theory of sense
and reference.[1]

(b)   if a referring expression does not refer to
an object it is not really a referring ex-
pression at all. I shall examine each of
these points in turn.

Frege's use of expressions such as "object",
"reference", "that which is designated", etc., is system-
atically ambiguous, because it fails to distinguish two
different senses in which such expressions are used in
ordinary language. In sense 1, the morning and evening
stars are the same "object": they are both the planet
Venus. So in one sense, the expressions "the morning
star" and "the evening star" do "refer to the same object",
that is Venus. Knowing or assuming this fact about Venus,
we can make statements such as "Venus, the morning star,
the evening star - call it what you like - it's really
a planet and it appears in both the morning and the even-
ing skies". Here we are certainly using the expressions
"Venus", "the morning star", and "the evening star" to
refer to the same object (sense 1), the planet Venus.

1.   Compare Geach and Black, pp.10-12 with pp. 29,
     44, 78.

However there is a second sense in which we use expressions like "object", as when, for example, someone says: "I have seen one object appear in the morning sky - call it 'the morning star', and I have seen another object appear in the evening sky - call it 'the evening star'. I wonder if these objects are identical or not?". In this case the word "object" is used in such a way that the objects referred to - the morning and evening stars - are different objects; and when used to refer to these objects (sense 2), the expressions "the morning star" and "the evening star" do not refer to the same object (sense 2). And according to my argument, these expressions must have this sort of use when they appear in sentences used to make statements identifying Venus and the morning and evening stars. Frege I think is right in saying that identity is a "relation between objects",[1] but he is quite wrong in saying that "in the (identity-stating) sentence 'The morning star is Venus', we have two proper names 'morning star' and 'Venus' for the same object".[2] The correct view is that in the

1. Geach and Black, p.56.
2. ibid., p.44

identity sentence "The morning star is Venus", we
have two proper names or referring expressions,[1] "the
morning star" and "Venus" referring to two different
objects (sense 2) which the identity statement asserts
to be the same object (sense 1), and which are the
same object (sense 1) only if the identity statement
is true. When Frege says, "if...a=b, then indeed
the reference of 'b' is the same as that of 'a'",[2]
he is simply uttering an implicit analytic statement.
What is the reference of "a"? a. What is the refer-
ence of "b"? b. To state that the reference of "b"
is the same as the reference of "a" is simply to
state that a=b.

The ambiguity of "object" is clearly exposed
by substituting for sense 2 of "object" expressions
such as "occurrence", "instance", "appearance", etc.
For example, someone could say quite naturally and
much less misleadingly: "I have seen two occurrences,
instances, appearances, etc., of stars in the morning
and evening skies, and I wonder if these are really
occurrences, etc., of the same star or of different

1. Frege uses "proper name" to mean "referring ex-
    pression". See ibid., p.47, first footnote.
2. ibid., p.78, also pp.56-57.

stars?". So in asking if the morning star is the
same as the evening star, our inquirer is simply
asking if these objects (sense 2) are different
appearances of the same object (sense 1); that is,
whether the two objects referred to by the expressions
"the morning star" and "the evening star" are part
of the same causal or historical series, whether
the references of these expressions share the same
history.

In answer to this argument, Frege might object
that not all identity statements are about successive
appearances of things possibly sharing the same
history, or about possible members of the same causal
series; and he might well point to a type of identity
statement that he himself discusses, where the rela-
tion of identity is not asserted to hold between
objects separated in time. In Frege's example, a, b,
and c are the lines connecting the vertices of a
triangle with the midpoints of the opposite sides.
According to Frege, if someone asserted the identity
statement that the point of intersection of a and b
is the same as the point of intersection of b and c,
he would be using the expressions "the point of inter-
section of a and b" and "the point of intersection of
b and c" in such a way that they have the same refer-

ence.[1]   And Frege might argue that my interpretation
of identity sentences is obviously inapplicable to this
example, because it is impossible to have two different
references if there is only one and the same point in-
volved. I should reply however that this formulation
of the problem is misleading, because it begs the
question raised by the identity statement – that there
is only one object (and in Frege's view, one reference)
involved. So, in opposition to Frege, I suggest that
we must ignore the truth-value of the identity state-
ment, while we are determining the references of the
referring expressions involved. In the above identity
statement, I should say that the reference of the ex-
pression "the point of intersection of a and b" is the
point of intersection of a and b; and that the refer-
ence of the expression "the point of intersection of b
and c" is the point of intersection of b and c.
Whether these points are one and the same point is the
issue raised by the identity statement; and so, in
interpreting the meaning of the identity statement, we
do not assume that the points referred to are either
the same or different.

1. See Geach and Black, p.57. Frege discusses a simil-
    ar identity statement in the Begriffsschrift, p.11
    Geach and Black.

Now following my earlier argument, I could
say that in the identity statement in question, we
have two referring expressions which refer to points
which are not assumed to be either identical or differ-
ent, but this formulation still retains the paradoxical
suggestion that one and the same point can be differ-
ent points. To avoid this suggestion, we might re-
phrase my argument in terms of properties or character-
istics. It could be argued that the expression "the
point of intersection of a and b" has as its reference
that which is (has the property or characteristic of
being) the point of intersection of a and b; and similar-
ly that the reference of the expression "the point of
intersection of b and c" is that which has the property
of being the point of intersection of b and c. On
this interpretation, the referring expressions have
obviously different references, and we can understand
what these references are without knowing whether that
which has the property of being the point of intersec-
tion of a and b also has the property of being the
point of intersection of b and c.

Perhaps we could state this point more simply
by saying that the two referring expressions convey

different descriptions, and that the identity statement
really asserts that the different descriptions apply to
one and the same object. In our example, the identity
statement asserts that that which can be described as
the point of intersection of a and b is also that which
can be described as the point of intersection of b
and c. But we cannot say that the referring expressions
refer to descriptions. As Frege realises, they express
descriptions, but they refer to what those descriptions
describe; and if we want to say that these descriptions
describe objects, then we can hardly avoid the para-
doxical, but not necessarily repugnant consequence that,
in an identity statement, there are two objects (sense
2) referred to, and they are asserted to be one and
the same object (sense 1). This consequence, I suggest,
is only an apparent paradox, because, once having dis-
tinguished the two senses of "object", there is no
contradiction in saying that two objects (sense 2) are
the same object (sense 1), and yet are different ob-
jects (sense 2). Similarly, there is nothing puzzling
about the situation where, on the reappearance of an
object we know to be the same as one known before, we
find that it is a substantially different object from
the one we last knew.

In view of the ambiguity of "object" we must
conclude that Frege's theory of reference is ambiguous
also. If two expressions refer to the same object in
sense 1 they necessarily have the same reference, but
they do not have the same reference if they refer to
objects in sense 2, even if those objects are found
to be identical. In the identity sentence "the morning
star is the same as the evening star", two different
objects (sense 2) are referred to, and the two differ-
ent references are identified as one object (sense 1).
In this sentence the expressions "the morning star"
and "the evening star" refer to different objects
(sense 2), to different appearances or instances of
Venus, and so according to Frege's theory of reference
they must have different references. This is obviously
how Frege should interpret the use of referring expres-
sions in the identity sentence: as referring to differ-
ent objects (instances, appearances of Venus) and
therefore as having different references.

But Frege is using "object" in sense 1 when he
argues that "the morning star" and "the evening star"
have the same reference in the identity sentence because

they refer to the same object Venus. This is obvious from the fact that he has to add the qualification provided the statement that the identity sentence expresses is true. Certainly if the identity statement is true, the reference_s of "the morning star" and "the evening star" are the same object (sense 1), the planet Venus; but regardless of whether the identity statement is true or false, these expressions are presupposed to refer to different objects (sense 2), and therefore to have different references: they refer respectively to those instances of Venus which appear in the morning and evening skies; they express different properties of Venus or convey different descriptions of Venus.

The confusion in Frege's sense and reference argument probably arises from his failure to distinguish consistently between the identity statement that the morning star is the same as the evening star, and the sentence by means of which this and other statements can be expressed, "the morning star is the same as the evening star". For instance, in stating the argument[1]

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1. Geach and Black, pp.56-57.

he talks of the cognitive value of the <u>statements</u>
a=b, a=a; but in recapitulating this argument at the
end of the article he ascribes cognitive value to the
sentences "a=b", "a=a".[1] This confusion of language
with what it means is all the more striking in view
of Frege's careful insistence on the correct use of
quotation marks to distinguish signs from what they
stand for or express.[2]

Had he kept the sentence/statement distinction
in mind, Frege might have realised that it is mislead-
ing to ask whether <u>sentences</u> of the form "a=b" express
"a relation between objects, <u>or</u> between names or signs",[3]
simply because at different times such sentences can
express <u>both</u> sorts of relations. Frege's theory of
reference never changes in this respect: he never
rejects this false disjunction, and he continues to
assume that sentences like "a=b" must always express
either one or other of these relations, but not both.
The article "On Sense and Reference" is positively con-

1. Geach and Black, p.78.
2. See Foundations, pp.54-55; The Monist, XXV(15)
   pp.492-493, and XXVII(17) p.118; Geach and Black,
   pp.100ff, 182ff, 191ff; M. Dummett: "Frege on Func-
   tions: a Reply". Philosophical Review, LXIV(55)
   p.96; M.V.O. Quine: Mathematical Logic, p.26.
3. Geach and Black, p.56. My underlining.

nected with the _Begriffsschrift_, in that the former merely introduces the notion of _sense_ to save Frege from the consequences of a false disjunction laid down in the latter. In the _Begriffsschrift_ Frege argues that sentences like "a=b" must always express something "relating to names, not to contents", that is, "the circumstance of two names' having the same content".[1] But in "On Sense and Reference", he still accepts the false disjunction assumed here, and merely tries the other alternative by arguing that sentences like "a=b" must always assert "a relation between objects" and _therefore_ never a relation "between names or signs of objects".[2]

Frege never realises that in his logic he really needs to recognise _both_ uses of expressions of the form "a=b": firstly, for stating identities—relations between objects that are the references of 'a' and 'b'; and secondly, for stating substitution rules or licences which concern relations between the expressions 'a' and 'b' themselves. In the _Begriffsschrift_ Frege uses the sentence "a=b" (or one just like it, the differences

1. _Geach and Black_, p.10.
2. _ibid._, p.56.

are unimportant) to mean: "the symbol a and the symbol
b have the same conceptual content, so that a can
always be replaced by b and conversely".[1] Frege's
basic error is to assume that this sort of substitu-
tion licence is no different from an identity statement,
a mistake that is common to both his earlier and his
later views. Acting on this assumption Frege tries to
reduce real identity statements to substitution licences
in the Begriffsschrift, and finding this unsatisfactory,
tries to do the very opposite in "On Sense and Reference"
by reducing substitution licences to identity statements.

Frege is right in saying that the sentence
"a=b" can express either a relation between objects or
a relation between expressions which refer to objects,
but he is quite mistaken in assuming that identity
statements are the same as substitution licences and that
both are expressed as either one or other of these re-
lations. Identity is a relation between the objects a
and b, and substitutability is a relation between the
expressions "a" and "b"; and these relations are ex-
pressed by quite different uses of the same sentence
"a=b". The distinction between these two uses or mean-
ings of "a=b" can be pointed by the fact that outside

1. Geach and Black, p.12.

a closed artificial system such as Frege's <u>Begriffs-</u>
<u>schrift</u>, the truth of the identity statement a=b
rarely if ever provides grounds for the licence, "a"
can always be replaced by "b", and <u>vice versa</u>. For
example, our knowledge of the truth of the identity
statement Tully is Cicero in no ways gives us the
licence to substitute the expressions "Tully" and
"Cicero" for each other in all contexts. The fact
that "Tully" and "Cicero" can both be used to refer to
the same ancient Roman in no way precludes the possib-
ility that "Tully" is also the name of someone's dog
or that "Cicero" is also used as a code-name for a
military operation. Similarly, from knowing that the
morning star is identical with the evening star we can
infer that in certain uses the expressions "the morn-
ing star" and "the evening star" will both refer to
Venus; but this conclusion is not incompatible with
the possibility that "the morning star" is also used
as the name of a ship, or that "the evening star" is
also used as the name of a newspaper. Knowing that
Tully is Cicero, we can certainly replace "Tully is
the author of the <u>Offices</u>" with "Cicero is the author
of the <u>Offices</u>"; but on striking the expression "Tully"

in a context such as "Tully is happily chewing his
rubber bone" we cannot perform a similar substitution
simply because the Tully referred to here is not the
ancient author who is also called "Cicero".

Only in the context of artificial languages,
it seems, is it possible to lay down a universal
substitution-rule such as "wherever you find the symbol
'a' you may always replace it with the symbol 'b'",
because to do so in ordinary language one would have
to be sure that there are no uses of "a" and "b" other
than as names of one and the same object. But it would
be impossible in principle to establish the truth of
such a negative existential assertion, and in any case
such an assertion would always seem implausible when
we consider the common practice of drawing on a stan-
dard and rather limited stock of proper names for
application to a wide variety of different human beings,
animals and objects. I now turn to examine the second
clause in Frege's theory of reference: that if a re-
ferring expression does not refer to an object it is
not really a referring expression at all.

Consider the following statements:

"I call anything a proper name if it is a sign for an object".[1]

"A proper name has as its reference a definite object (this word taken in its widest range)".[2]

"The reference of a proper name is the object itself which we designate by its means".[3]

"The singular definite article always indicates an object".[4]

These quotations clearly show that for Frege the sentence "proper names always refer to an object" really expresses a verbal definition to the effect that "an expression is to be called a 'proper name' if and only if in fact it designates an object". So Frege restricts the meaning of "proper name" just as we might restrict the application of the expression "sign-post" to finger-boards which do in fact point to the town whose name they bear. But using "signpost" in this special sense we could not say, without self-contradiction, that some fool had turned the signpost

1. Geach and Black, p.47, footnote 1. Compare p.57.
2. ibid., p.57.
3. ibid., p.60. Compare also p.43.
4. ibid., p.45.

around to point in the wrong direction, because if the
fingerboard is <u>not</u> pointing at the town whose name it
bears it cannot properly be called a "signpost" at
all, in the special sense of the word. It is still
however a post of the sort which is used to give dir-
ections and which <u>normally</u> is a "signpost" in the
sense defined.

Frege's definition of "proper name" is rather
like this special use of "signpost". If by definit-
ion all proper names refer to objects, it immediately
follows that whatever does not refer to an object is
not a proper name, or at least cannot be called a
"proper name" in Frege's sense of the expression. As
far as Frege is concerned, even in his later writings,
referring expressions are "proper names" in this
special sense, and so it must be strictly self-
contradictory for him to speak of a referring expres-
sion or proper name which fails to have an object.
This consequence of his definition leads to serious
difficulties.

Consider the signpost analogy again. When we
come to a cross-road, for example, and find certain

posts or fingerboards we can usually tell that they are
"signposts" in the ordinary sense of the word simply
by inspecting them, and seeing that they purport to
indicate the direction of a town whose name is inscribed
on the post. But when we are ignorant of the local
geography, we cannot tell merely from reading the sign-
post whether or not the town which the sign purports to
indicate is really there in the direction indicated.
So in the ordinary sense of "signpost" it is possible
to say "Here is a signpost which purports to indicate
the direction of the town whose name it bears, but
I don't know whether the signpost is accurate. I
don't know whether there is really a town there at all
in the direction indicated". But if we were to use
"signpost" in the restricted sense of "fingerboard
which does in fact point to the town whose name it
bears", it would be self-contradictory to suggest that
the signpost does not really point to the town whose
name it bears. So with the ordinary but not with the
special use of "signpost" we can distinguish two
questions: "what does the signpost say?"; and "is
what the signpost says accurate?". Similarly, when
using "referring expression" in its ordinary sense,
we can distinguish two sorts of question:

firstly, What does this expression purport to designate?; that is, What object is presumed or presupposed to exist by the use of this expression?. These are questions of fact concerning the _meaning_ of the expression, or the intention behind its use.[1] Such questions can usually be answered by a person who understands the use of the referring expression.

secondly, Does the purported object actually exist?; that is, Is the presumption or presupposition that the designated object exists well-founded?. These are questions of fact concerning the _existence of objects_ and even the person who understands a referring expression and uses it meaningfully may often be unable to answer such questions.

In defining "proper name" (and the same would apply to "referring expression"), Frege runs these two sorts of questions together: a "proper name" or "referring expression" for him not merely _purports_ to have a reference; it must in fact have a reference. But this requirement becomes very inconvenient in practice simply because we can use what we would normally call a "referring expression" in the mistaken belief that

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1. Compare _Geach and Black_, pp.60-61.

its reference exists. The theory of presupposition that
Frege develops in "On Sense and Reference" starts from
this very possibility. It may be true, as Frege claims
that "when we say 'the Moon'...we presuppose a reference".[1]
But how does Frege's strict definition of "proper name"
accord with his view that "we can of course be mistaken
in the presupposition, and such mistakes have occurred."[2]
If "proper name" means "that which actually refers to
an object", then it is quite inconsistent to say that a
proper name does not have a reference, or that it wrongly
presupposes an object to exist. To avoid this difficulty
Frege has two alternatives.

One is to stick to his original definition and
refuse to call referring expressions "proper names"
when they turn out to have no reference. This procedure
would not necessarily lead to inconsistency, but there
is always the risk to which Frege actually succumbs of
using "proper name" ambiguously to refer not only to ex-
pressions which do have a reference, but also to expres-
sions which merely purport to have a reference. Further-
more if we are interested in studying referring expres-
sions as such, it is obviously inconvenient not to have

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1. Geach and Black, p.61
2. ibid., p.61. Compare pp.62, 69, 70, and 71, foot-
    note 2.

a distinct notion of, and a special term for the general
class of expressions which purport (correctly or other-
wise) to refer to objects. Frege obviously needs such
a notion in his theory of presupposition when he says,
for instance: "It may perhaps be granted that every
grammatically well-formed expression representing a proper
name always has a sense. But this is not to say that
to the sense there also corresponds a reference. The
words 'the celestial body most distant from Earth' have
a sense, but it is very doubtful if they also have a
reference. The expression 'the least rapidly convergent
series' has a sense; but it is known to have no refer-
ence...".[1] It is possibly through not having a distinct
notion of expressions which purport to refer to objects
that Frege confuses under the title of "apparent proper
names" not only referring expressions which fail to
have a reference, but also expressions which are never
intended to have a reference, for example, indicating
expressions.[2] The notion of a referring expression is
absolutely necessary for Frege's theory of presupposition
and it is just as pointless and inconvenient to restrict
"proper name", "referring expression", etc., to expressions

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1. Geach and Black, p.58.
2. ibid., pp.107.

with objects as it would be to restrict "signpost" to accurate signposts.

As an alternative possibility, Frege can revise his definitions of expressions such as "proper name", and say that an expression is a proper name or a referring expression if and only if it purports to designate an object. This definition would enable Frege to keep separate the two sorts of questions distinguished above, questions concerning the meaning or use of a referring expression, and questions concerning the existence of objects designated by referring expressions. In order to be a referring expression on this second definition, an expression need only be used with the intention to refer to an object, and its status as a referring expression would in no way be contingent upon the existence of the object referred to.[1] Furthermore this modified definition of a referring expression would enable Frege without suspicion of self-contradiction to ask whether a proper name "really designates an object or only seems to do so

1. Compare Romane Clark: "Presuppositions, Names and Descriptions", Phil. Quart. VI (56) p.148; W.V.O. Quine: From a Logical Point of View, p.6; and V.C. Aldrich: "Mr. Quine on Meaning, Naming and Purporting to Name", Philosophical Studies, VI (55) pp.17-26, esp. p.19.

while in fact having no reference".[1] So on this view

the existence or otherwise of the designated object no

longer determines whether its name is a proper name or

not. The existence of the object however can be pre-

supposed by those who accept statements about the object

as being true or false, or as raising genuine issues.

As Frege says, "whoever does not admit that the name has

reference can neither apply nor withold the predicate".[2]

The above alternatives are the two stools between

which Frege falls in his later writings. Basically he

still adheres to the Begriffsschrift theory of reference

according to which a referring expression depends on

having a reference not only for its significance as a

symbol[3] but also for its very status or existence as a

symbol.[4] Having identified the meaning of a referring

expression with its reference, Frege's original theory

of meaning made it logically impossible for him to admit

the existence of referring expressions which lack a ref-

erence. Hence the strict requirement that a "proper

name" must have a reference. This was originally laid

1. Geach and Black, p. 69.
2. ibid., p.62.
3. According to the Begriffsschrift theory of reference,
    a proper name without reference "has no content" and
    "is senseless". See Foundations, footnote to pp.87-88.
4. "an empty symbol...without some content...is merely
    ink or print on paper...really...not a symbol at all".
    Foundations, p.107.

down for an artificial language, but even in "On Sense
and Reference" which concerns referring expressions <u>in</u>
<u>general</u>, Frege still hopes to make it absolutely certain
that proper names or referring expressions are used only
when they have a reference. At one point in this article,
he even suggests that this might be achieved, at least
with mathematical expressions, by laying down a "spec-
ial stipulation" or "convention" that when an expression
does not refer to a specific object, it shall be regarded
as designating the number nought.[1]   But apart from
being obviously artificial, this device would have very
limited application. Whatever may be its value in an
artificial language, it certainly could not be invoked to
secure the reference of expressions in ordinary language,
because unlike the calculus Frege dreams of, ordinary
language allows us to create an indefinite number of
<u>significant</u> referring expressions regardless of whether
they have corresponding objects. It is this very fact
which Frege himself recognises[2] that prevents him from
applying his definition of proper names to the referring
expressions of natural language.

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1. <u>Geach and Black</u>, p.70 and footnote to p.71.
2. See <u>ibid.</u>, p.581.

Frege's continued adherence to his strict def-
inition of proper names is the clearest evidence of my
point that the theory of meaning in "On Sense and Ref-
erence" remains basically referential, or denotationist.
The introduction of the notion of sense however brings
a new and essentially alien element in Frege's theory
of meaning. Given sense, a referring expression can
exist quite safely as a symbol, and as a significant
symbol, even though it may fail to have a reference. So
with the assumption of sense, it is no longer self-
contradictory for Frege to talk about referring expres-
sions or proper names which have no reference. Hence it
is no longer necessary for Frege to retain the strict
definition of proper names laid down in the Begriffsschrift.

Frege's difficulties in "On Sense and Reference"
arise mainly from the fact that for him the notion of
sense is not the core of a new theory of meaning, but
merely an ad hoc device to save his old denotationist
theory from its supposed implication that true synthetic
identity statements are analytic. I suggest however that
the theory of sense and the associated theory of presuppos-
ition really involve Frege in a new line of thought which
is incompatible with his earlier theory of reference, and

with his original theory of proper names in particular.
The failure to blend the old and the new, the referen-
tial and the non-referential theories leaves Frege's
account of meaning in an incoherent, transitional and
unstable state. This is my second thesis.

In the remainder of this chapter, I shall try
to bring out what seem to be the more positive results
of Frege's theory of sense and reference. In the con-
text of the new theory of sense, Frege's strict definit-
ion of proper names is obviously just an uncriticised and
indeed unnecessary hangover from the Begriffsschrift:
as long as he identified the entire meaning of an ex-
pression with its reference, Frege had to reject the
possibility of a referring expression without an object,
because to admit this would be to admit that something
could be a sign (that is, something with a reference-
meaning) and yet not be a sign (have no reference-
meaning). But once he adopts a non-referential theory of
meaning, such as the theory that the meaning of referring
expressions lies in their sense, Frege is quite free to
talk about proper names or referring expressions that
are meaningful symbols even if what they refer to does
not exist.

Now the fact that Frege does not revise his
theory of reference is very significant. With the pure
referential theory of meaning in the Begriffsschrift,
Frege identified the meaning, content, sense, etc., of a
sign with what it stands for.[1] What is later the ref-
erence strictly so-called then served as both the sense
and the reference of referring expressions. But Frege
later comes to see that these different elements of
meaning must be distinguished, since we can understand
the meaning of a referring expression regardless of whether
we know its object exists. Similarly in the case of sen-
tences to which the sense and reference distinction also
applies, Frege now sees that we can understand an
assertion-sentence, that is, we can grasp the thought or
statement it expresses, even though we might not know
whether the statement expressed is true or false.[2]

According to Frege's original theory, the whole
meaning of an expression is to be found in its reference,
the object it stands for. So if it is true that Frege's
theory of reference does not alter in the later writings,
we should expect to find that even after the introduction

1. See Geach and Black, pp.1-2, 10-12.
2. ibid., p.64.

of sense, reference is still functioning in some way as
the meaning of an expression. This is just what happens.
Even after Frege distinguishes the sense or meaning of an
expression from its reference, the word "reference" is
still left straddling the two distinct notions that were
originally confused under it. In his later writings,
Frege still uses "reference" to cover both the symbol's
functions of making a reference and the object's func-
tion of being a reference. In other words, Frege's
notion of reference continues to confuse questions con-
cerning the meaning or use of symbols (Is this a ref-
erring expression?, Does it make a reference to some
object?, etc.,) with questions concerning the existence
of objects (Does the object referred to or presupposed
by this expression really exist?)

Such questions of course cannot be distinguished
as long as Frege adheres to his strict definition of
referring expressions; but in "On Sense and Reference",
Frege frequently goes back on this definition, and speaks
of referring expressions as if they can refer success-
fully or unsuccessfully to objects. For example he
speaks of "proper names without reference"[1] and he says
that "languages have the fault of containing expressions

1. Geach and Black, p.62.

which fail to designate an object (although their grammat-
ical form seems to qualify them for that purpose) because
the truth of some sentences is a prerequisite".[1] Further-
more, he allows the question whether an expression
"really designates an object or only seems to do so while
having in fact no reference"; that is, whether there is
an object such as that to which the referring expression
is making reference.[2]

So despite his strict definition of referring
expressions, Frege virtually admits that expressions can
be referring expressions even when the object referred to
does not exist. But this admission is concealed by his
ambiguous use of words like "reference" to cover both the
function of referring and the object referred to; and
this ambiguity affects the very description of referring
expressions as those "which stand for or refer to an
object", for "refer" here can mean either "refer (success-
fully or otherwise)" or "refer successfully". Frege
sometimes limits referring expressions to those which
refer successfully to real objects, as when for example
he says that referring expressions from fiction such as

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1. Geach and Black, p.69.
2. ibid., p.69.

"Odysseus" and "Scylla" have no reference and designate nothing;[1] and according to Frege's strict definition of "proper name", expressions such as these cannot be proper names. But when Frege goes on to talk of these as "proper names without reference",[2] he virtually admits that an expression is a referring one simply when it performs the function of referring or naming, regardless of whether there actually is some real object referred to or named. To know that an expression is a referring one in this sense is simply to know that it makes a reference without necessarily having a reference, in the way of some corresponding real object.

Such a treatment of referring expressions is implicit in Frege's theory of presupposition which is really quite inconsistent with his strict theory of referring expressions. Frege argues, for instance:

> "...when we say 'the Moon'...we presuppose
> a reference.... Now we can of course be
> mistaken in the presupposition, and such
> mistakes have indeed occurred. But...in
> order to justify our mention of the ref-
> erence of a sign it is enough, at first,
> to point out our intention in speaking or
> thinking".[3]

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1. Geach and Black, pp.62-63, p.167; Compare W.V.O. Quine: Word and Object, p.177.
2. ibid., p.62.
3. ibid., pp.61-62.

Here Frege is certainly coming round to the view that
a referring expression is simply one which refers to
in the sense of "presupposes" an object. But just as
he looks like developing a new theory of reference in
terms of presupposition, the old thoughts from the
Begriffsschrift rise up again: "we must then add the
reservation: provided such reference exists". Such a
reservation is quite unnecessary if a referring expres-
sion is simply that which (correctly or otherwise) pre-
supposes some object, and the addition of the remark
at this point amply illustrates the conflict in Frege's
thinking between the old and the new theories of meaning:
the conflict between the misleadingly simple view that
a referring expression is one which has a reference, and
the seemingly paradoxical view that a referring ex-
pression is one that refers even if the object referred
to does not exist. The former view which is really
Frege's strict definition of proper names has been stated
in all its dangerous simplicity by Russell: "it always
seems legitimate to ask: 'what is it that is named by
this name?'. If there were no answer, the name would not
be a name".[1] To this I think Frege should reply that we

1. The Principles of Mathematics, second edition, p.510.
    Compare: J. Hintikks, "Existential Presuppositions"
    The Journal of Philosophy, LVI (59) p.126.

can name or refer to an object which we mistakenly be-
lieve or presuppose to exist, just as we can fire a
mortar at a non-existent target which we mistakenly be-
lieve to be behind the next hill.

Despite its conflicts and inconsistencies,
"On Sense and Reference" does suggest what seems to be
the correct view that for any referring expression we
can distinguish two meaning-functions - roughly speaking,
what the expression expresses and what the expression
refers to - but it does not follow that these coincide
exactly with what Frege calls "sense" and "reference".
In the identity-sentence "the morning star is the same
as the evening star" the constituent referring expressions
I have argued do not have the same reference.[1] The ex-
pression "the morning star" refers to an object that is
a star and that appears in the morning sky; the expres-
sion "the evening star" refers to an object that is a
star and that appears in the evening sky; and even though
both of these objects are Venus, it does not follow that
Venus is the reference of both referring expressions,
as Frege maintains. Each referring expression, I have
suggested, has as its reference a certain instance

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1. Compare: A. Church: review in J.S.L. 15(50) p.63.

(of Venus), and the identity statement asserts that both instances are instances of the one object (Venus); or, in other words, the identity statement asserts that whatever has the property of being the morning star also has the property of being the evening star.

So Frege's theory of reference must be modified to allow for the fact that two expressions can refer to the same object (in sense 1 of "object") and yet have different references by describing different properties, appearances, instances of the one object. This last point is recognised in a way by Frege when he says that the sense of a referring expression "serves to illuminate only a single aspect of the reference".[1] I would argue however that the reference of the referring expression, is not the aspect mentioned here, but that of which the aspect is an aspect. The expression "the morning star" refers to that which has the property or aspect of being the star that appears in the morning sky. Similarly, "the evening star" refers to that which has the property of appearing in the evening sky. These are the references of the referring expressions regardless of the truth or falsity of the identity statement which simply tells us that the two aspects in question are aspects of one and

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1. Geach and Black, p.58. My underlining.

the same object (Venus). This point might be more
clearly expressed in terms of presupposition. What is
presupposed by the use of "the morning star"? No more
than that there is something which is a star and which
appears in the morning sky; and we can talk about this
object and similarly about the evening star without pre-
supposing and indeed without even knowing that Venus
exists. Frege himself virtually admits this point when
he says: "...the thought in the sentence 'The morning
star is a body illuminated by the Sun' differs from that
in the sentence 'The evening star is a body illuminated
by the Sun'. Anybody who did not know that the evening
star is the morning star might hold the one thought to
be true, the other false".[1] Curiously enough, Frege
does not draw the obvious conclusion that the referring
expressions which are the subjects of these sentences
must have different references otherwise the sentences
would be synonymous, in which case it would be impossible
to hold that the thought or statement expressed by one
is true without holding that the thought or statement
expressed by the other is also true.

Presupposition poses another difficulty in Frege's
theory of reference: what in general is presupposed by

1. Geach and Black, p.62.

the use of a referring expression? When Frege says that
"if anything is asserted there is always an obvious pre-
supposition that the simple or compound proper names used
have reference",[1] he seems to take the very narrow view
that the reference must be a _real_ object, because he den-
ies that "Odysseus" and "Scylla" have a reference.[2] But
these are surely both referring expressions: "Odysseus"
is used to refer to the legendary character who (among
other things) was set ashore at Ithaca while sound asleep;
and "Scylla" refers to the mythical creature that has
six dragon heads. Now contrary to what Frege assumes,
we can use such fictional referring expressions quite
naturally and meaningfully by presupposing no more than
that they have a _fictional_ reference. As Brentano correct-
ly points out, the description of a centaur as half-man,
half-horse does not presuppose that there is such a thing
really existing in the world, but simply that such a being
occurs in the legends of the poets.[3]

Perhaps Frege's denial of unreal references
arises in this way. In the _Foundations of Arithmetic_

1.   Geach and Black, p.69.
2.   ibid., p. 62, p.167.
3. Psychologie, 2.7.7, vol. 2, pp.60-61, footnote. Compare
    H.W.B. Joseph: _An Introduction to Logic_, p. 164; J.
    Xenakis: "The Logic of Fiction, _Methodos_ VIII (56)
    pp. 47-56. W.V.O. Quine: _Word and Object_, pp.176ff.

he argues that "as a general principle, it is impossible to speak of an object without in some way designating or naming it",[1] and Frege uses this principle to show that concepts are not real objects and cannot be designated. But it seems that Frege also wants to hold the converse view that whatever we designate or name must be a real object. But it is obvious that we can use names or designating expressions to refer to an indefinite variety of things which in no sense are "real objects". For example, I can refer quite naturally to the concert that was cancelled, the meeting that is planned, the reward that I hope for; I can refer indifferently to a number of possibilities only one of which is like to occur; and I can refer to objects, people, events, etc., that may have existed in the past, and might exist in the future. At this point one might even argue with Meinong that it is only our "prejudice in favour of the actual" which leads us to believe that real existent things can be the only objects of thought and language.[2]

Meinong in fact seems to be right in holding that we can think about and refer to an indefinite variety of objects regardless of whether they exist or not (and this

1. Foundations, section 47, p.60.
2. Gegth., p.486.

could be the _empirical_ content of the theory of _Aussersein_).
But for those who might prefer a less metaphysical mode
of assertion, the same point can be expressed in Frege's
terms of presupposition: we can use different sorts of
referring expressions in such a way that we make differ-
ent sorts of presuppositions, and not merely presupposi-
tions concerning existent things. The use of "the
morning star" normally presupposes the truth of the pro-
position that there is a star which appears in the
morning sky. Similarly, the normal use of "Odysseus"
presupposes that there is a legendary character who is
said to have had many adventures including one where he
was put ashore at Ithaca while sound asleep. The use
of "Julius Caesar" normally presupposes _not_ that there
exists a great Roman soldier, statesman, author, etc.,
but that such a man _did exist_ in ancient times.

    To conclude. Frege's theory of referring ex-
pressions would need considerable revision before it
could be accepted as an account of how such expressions
"stand for objects". Furthermore, his view that such
expressions also "express a sense" would also need much
more explanation than Frege provides, before it could
be considered as a general theory of how referring ex-

pressions have meaning. But despite its limitations, the theory of sense and reference is an important contribution to theory of meaning, in as far as it offers a general distinction between meaning and naming. While Frege fails to prove that referring expressions must have a sense as well as a reference, he does succeed in drawing attention to the difference between the meaning and naming functions of these expressions. This difference might be illustrated as follows:

Question: what does the expression "the morning star" stand for, refer to, name or designate?

Answer: the morning star; that is, the star that appears in the morning sky, an object also known as "Venus". More correctly: the expression "the morning star" normally purports to designate, and usually does designate the star that appears in the morning sky. This expression may, however, have other uses, e.g., as the name of a ship or a newspaper.

Question: what is the meaning or sense of the expression "the morning star"?

Answer: "the star that appears in the morning sky". The quotation marks here indicate that the phrase they enclose is being used not to designate an object, but to express a meaning.

But what is it "to express a meaning"? Frege's theory of sense does not provide a very clear answer to this question; for sense is mainly important to Frege as an extra dimension of meaning which he assumes in order to avoid having to admit that "the morning star" and "the evening star" are synonymous. In adopting the notion of sense, Frege, I suggest, does not really abandon his early denotationist assumptions, but merely modifies them in order to account for the meaning of identity-sentences. There is evidence, too, that the theory of sense is just a more sophisticated denotationist philosophy, in that it tries to explain meaning by postulating a non-empirical world of meaning-objects. But Frege does little towards investigating either the advantages or the disadvantages of assuming this "third realm", and this task falls to Russell. In the concluding chapter of this essay, I shall show how Russell first postulates such a world of meaning-objects, and then, having discovered a fundamental difficulty in this notion, goes on to develop a theory of meaning specifically designed to avoid the denotationist assumptions that trouble Frege.

Chapter 5

Towards a Theory of Incomplete Symbols

In The Principles of Mathematics, Russell sets out to prove "that all pure mathematics deals exclusively with concepts definable in terms of a very small number of fundamental logical concepts, and that all its propositions are deducible from a very small number of fundamental logical principles";[1] in other words, "that mathematics and logic are identical".[2] Drawing on the work of Leibniz, Boole and Peano, Russell argues that traditional Aristotelian logic, centred around theory of the syllogism, can be replaced by a new, more fundamental and comprehensive subject, symbolic or formal logic. This he conceives as the study of "inference in general", of asyllogistic as well as of syllogistic forms of implication and argument.[3]

At the time when the Principles was written, logic was commonly regarded as the preserve of philosophy,

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1. Preface to the first edition, p.xv. Page references are to the second edition, 1937.
2. ibid., p.v.
3. See ibid., pp.4-5, pp.10-11.

and, as Russell himself noted, the thesis that logic
is identical with mathematics would have been "almost
universally denied" by philosophers of the time.[1]   In
developing his mathematical logic, Russell breaks with
traditional logic, not only by drawing on the resources
and techniques of contemporary mathematics, but also
by rejecting the assumption that logic, in the sense of
constructing formal deductive systems, is a peculiarly
philosophical task.   "Wherever we have deductive reason-
ing", Russell says, "we have mathematics (and therefore
logic); but the principles of deduction, the recognition
of indefinable entities, and the distinguishing between
such entities, are the business of philosophy".[2]

In the construction and derivation of his logic,
Russell parts company with the philosopher-logicians
of his day and joins the mathematicians; but in the
philosophy of his logic, Russell retains much closer
affiliations with philosophers, and naturally with
philosophers concerned with traditional logic.   When
Russell wrote the Principles, the philosophy of mathemat-
ical logic had hardly been considered, except by Frege

1.   The Principles of Mathematics, p.xv
2.   ibid., p.129. My addition in brackets. Russell re-
     affirms this point in the preface to Human Knowledge,
     where, in referring to the construction of formal
     systems, he says "logic is not part of philosophy".

whose work remained unknown to Russell until the
Principles was in the press. In the Preface to the
Principles, Russell acknowledges his immediate philoso-
phical debt to G.E. Moore, from whom, he claims, his
"position, in all its chief features, is derived";[1]
and through Moore, a philosopher rather than a logician,
Russell makes contact with a tradition of philosophical
discussion that runs from Moore to Bradley, and through
Bradley back at least to Mill. But the philosophical
antecedents of the new logic are even more ancient:
as Russell himself later realises, The Principles of
Mathematics adopts a philosophy of logic that is as old
as Plato.[2]

This philosophy of logic is outlined in the first
part of the Principles, and despite its novelties, much
of this part would strike a traditional logician as
being not unfamiliar. This is particularly true of
chapter IV, "Proper Names, Adjectives and Verbs" which
roughly corresponds to the early chapters of Mill's Logic.
The ground Mill covers in defence "of the necessity of

1. Principles, p.xviii.
2. Introduction to second edition, pp.ix-x.

commencing (logic) with an analysis of language" is also
surveyed by Russell in his brief study of "philosophical
grammar", and at times Russell comes quite close to
Mill in his "analysis of the constituents of propositions".[1]
Mill thinks that a "theory of names" is "a necessary
part of logic" on the ground that a proper study of pro-
positions necessarily presupposes a study of their con-
stituent names.[2] Russell holds a similar view, for
rather different reasons. In the Principles, he argues
that he must study "the distinctions of subject and predi-
cate, substance and attribute, substantive and adjective,
this and what" on the ground that such a study "is
essential to any doctrine of number or of the nature of
the variable".[3]

Despite differences of detail, Russell's analysis
of propositions is strongly reminiscent of Mill's. Like
Mill, Russell starts with the notions of a proposition
and its constituent terms, and, like Mill, Russell
leaves these notions obscure through neglecting to dist-
inguish between propositions and their constituents as
signs, and propositions and their constituents as what

1. See Principles, p.41.
2. Logic, I.I.2.
3. Principles, p.43.

signs signify. For instance, when Russell "divides" the proposition "Socrates is a man" into the term <u>Socrates</u> and the assertion <u>is a man</u>[1] he does not really make clear <u>what</u> he is dividing: whether he is dividing the sentence "Socrates is a man" into its constituent phrases, or whether he is dividing something other than the sentence, something that the sentence expresses into its constituent parts. This confusion of a sign with what it signifies also affects Russell's basic notions of a constant and a variable. For instance, he speaks as if variables both "stand for numbers" and "are numbers",[2] thus falling into the error that Frege so frequently criticises. It is no doubt due partly to Frege's influence that Russell later comes to see the importance of distinguishing between signs and what they signify: in the Introduction to the second edition of the <u>Principles</u>, he says that constants (and variables too, presumably) "must be treated as part of the language, not as part of what the language speaks about".[3] But in considering the original doctrines of the <u>Principles</u>, one should not expect to find a systematic distinction between language and what language is about, because, at this stage, Russell does not think in these

1. <u>Principles</u>, p.39
2. <u>ibid.</u>, p.6
3. <u>ibid.</u>, p.xi

terms. It would be better, I suggest, to read Russell's
early theory of propositions from a Millian point of
view, because, like Mill, Russell thinks of a proposition
neither as a bare assertion-sentence, nor as its meaning,
but rather as an assertion-sentence considered together
with its meaning. Just as Mill speaks as if "parts" of
propositions are words or phrases each carrying its own
individual meaning, so Russell speaks as if what he calls
"constituents" of propositions have both linguistic and
logical properties in their own right. For example, he
treats proper names both as grammatical subjects of assertion-
sentences[1] and as logical subjects of assertions.[2]

In his analysis of propositions, Russell rejects
the traditional distinction between subject, copula, and
predicate, to which Mill subscribes, and holds instead
that any proposition can be divided into two constituents,
a "term" or "subject", and an "assertion" which is some-
thing said about the subject-term.[3] Thus in the propos-
ition "Socrates is a man", Socrates is the subject-term,
and is a man is an assertion made about Socrates.

1. Principles, p.44
2. ibid., p.43
3. ibid., pp.39, 43, 45

A term for Russell is something which may be an object of thought, which may occur "in" a true or false proposition, and which may be counted as one, that is, which may occur as subject of the proposition that it itself is one.[1] He uses "term" - "the widest word in the philosophical vocabulary" - synonymously with "unit", "individual" and "entity";[2] and in his view a term can be "a man, a moment, a number, a class, a relation, a chimaera, or anything else that can be mentioned".[3] Russell distinguishes two kinds of terms. Firstly, there are terms which are "things", and these are indicated by the use of proper names or referring expressions in assertion-sentences; and secondly, there are terms which are "concepts", and these are indicated by other parts of speech: predicate terms or class concepts are indicated by adjectives, and terms which are relations are indicated by verbs.[4]

During the brief exposition of his theory of terms, Russell deliberately avoids discussing its wider philosophical implications, since he is chiefly concerned with setting out the basic notions of his logical system. And although Russell is aware that his analysis of proposi-

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1. Principles, pp.43-44
2. ibid., p.43
3. loc. cit.
4. ibid., p.44

tions has far-reaching implications, the only hint of
these implications is given by the following brief but
pregnant argument showing why "term" is the "widest word
in the philosophical vocabulary". "Anything that can be
mentioned", Russell argues, "is sure to be a term; and to
deny that such and such a thing is a term must always be
false".[1] The full implications of this argument are not
brought out until very late in the Principles, where, in
rejecting Lotze's theory of the three kinds of being,
Russell presents his conception of Being.

> "Being is that which belongs to every conceivable
> term, to every possible object of thought – in short
> to everything that can possibly occur in any proposi-
> tion, true or false, and to all such propositions
> themselves. Being belongs to whatever can be counted.
> If A be any term that can be counted as one, it is
> plain that A is something, and therefore that A is.
> "A is not" must always be either false or meaning-
> less. For if A were nothing, it could not be said
> not to be; "A is not" implies that there is a term
> A whose being is denied, and hence that A is. Thus
> unless "A is not" be an empty sound, it must be
> false – whatever A may be, it certainly is. Numbers,
> the Homeric gods, relations, chimeras and four-
> dimensional spaces all have being, for if they were
> not entities of a kind, we could make no proposi-
> tions about them. Thus being is a general attribute
> of everything, and to mention anything is to show
> that it is".[2]

As we saw earlier, Russell's view here is what

Meinong calls the theory of Quasisein, the theory that

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1. Principles, p.43
2. ibid., p.449. Compare Mill's statement that "Being
   ...is really the name of something, taken in the most
   comprehensive sense of the word". Logic, I.V.5, foot-
   note.

there is a sort of being which belongs to all terms, existent or otherwise. In adopting this view Russell agrees with Meinong in rejecting the existential theory of judgement – the theory that any proposition is about something that exists – on the ground that propositions can be made about things which patently do not exist. Russell's example is Existence itself. If we can truly assert that Existence does not exist, then Russell argues, we cannot admit that the subject of this proposition, Existence, is assumed to exist, because the proposition in question actually denies this. So, Russell concludes, in making propositions about fictional, unreal and impossible objects, we are referring to objects which have being but not existence. (Meinong's conclusion, we saw, was that objects of thought are simply outside of or exempt from existence).

Apart from the passage quoted, Russell does not say any more about the theory of Being in The Principles of Mathematics, and it is obvious that Russell adopts this theory not as a seriously worked out doctrine of general metaphysics, but because it seems to provide a convenient account of the meaning of constants in his logic, such as numerals, classes, etc. As Russell points

out in the Introduction to the second edition of the
Principles, this theory has something in common with
Plato's theory of forms, and with Frege's theory of
numbers as independently existing mathematical objects.[1]
The immediate source of this theory, however, is to be
found in a certain theory of meaning, the philosophical
elaboration of which Russell owes to G.E. Moore. This
theory of meaning can be illustrated by the following
quotations:

> "Words all have meaning, in the simple sense
> that they are symbols which stand for something
> other than themselves" [2]

> "...every word occurring in a sentence must
> have some meaning: a perfectly meaningless sound
> could not be employed in the more or less fixed
> way in which language employs sounds" [3]

The view suggested here might well be regard-
ed as the common-sense theory of meaning, and Russell
accepts it without much argument, as if it were obviously
true. But he does indicate that this theory, simple and
obvious as it seems, does have far-reaching implications
that common sense does not recognise, and would in fact
find alarming or even repugnant. These implications are
broadly summed up in the theory of Being, which simply
postulates that, in some sense, there "is" an object

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1. pp.xi-xii.
2. ibid., p.47.
3. ibid., p.43.

corresponding to every assertion-sentence, and every expression having a substantival use in language. In the Principles, Russell does little more than sketch this theory of meaning and indicate some of its consequences, and to see the philosophical development of this theory, we must turn to the early work of G.E. Moore which Russell acknowledges as the source of the philosophical views he adopts in the Principles. Russell specifically mentions Moore's early article "The Nature of Judgement", published in Mind in 1899, the year preceding that in which most of the Principles was written.

In this article, Moore develops a theory of judgement from that put forward by Bradley in his Principles of Logic. Moore takes up Bradley's dictum "without ideas, no judgement" and tries to determine in what sense "ideas" are necessary for judgement. Bradley's theory of ideas, Moore argues, suffers from a failure to distinguish between ideas as symbols used in the process of judging, and ideas as what are symbolised, meant, . or referred to in judgement.[1] Bradley sometimes speaks of "mere ideas, signs of an existence other than themselves,[2] and this suggests that an idea is necessarily

1. Mind VIII(1899) pp.176-177.
2. ibid., p.176.

an idea of something else. An "idea" in this sense,
Moore points out, is something psychological, a private
mental event referring to some object other than itself.
But Bradley, according to Moore, also uses "idea" to
mean that to which judgements refer, something symbolised
rather than symbolising. This idea symbolised in judge-
ment Bradley calls the "universal meaning"; and while he
does not object to this notion, Moore does reject Bradley's
view that this sort of idea is something subjective or
psychological, part of the content individual thought pro-
cesses. So to avoid the ambiguities and psychological
overtones of "idea", Moore calls the meaning to which a
judgement refers a "concept". "The concept", he declares,
"is not a mental fact, nor any part of a mental fact".[1]

By stripping judgement-ideas of their psychol-
ogical content, Moore arrives at a distinction (not unlike
that drawn by Brentano) between judgement as a private
psychological process, and the objects of judgement,
which Moore calls "concepts". Concepts, he says, "come
into relation with a thinker; and in order that they may
do anything, they must already be something. It is in-
different to their nature whether anybody thinks them or

1. op. cit., p.179.

not".[1] In this argument, we find the genesis of Russ-
ell's theory of terms. Following Moore, Russell argues
that the terms of all propositions must have being, "for
if they were not entities of a kind, we could make no
propositions about them".[2] While admitting that his
notion of a term is derived from Moore's notion of a con-
cept, Russell indicates that there are differences be-
tween the two, one of the most important of which is
this: Russell thinks that a proposition such as "Socrates
is a man" should be analysed into two distinct things,
a subject-term, Socrates, and an assertion, is a man;
and his view here resembles that of Frege who would say
that "Socrates is a man" asserts that the object referred
to by the name "Socrates" falls under the concept ex-
pressed by the phrase "is a man". Moore however would
say that the proposition expressed by "Socrates is a
man" is really a synthesis of two similar things, the
the concept Socrates and the concept of being a man; and
here Moore inclines towards Brentano's view that the ob-
jects of judgement are identical with the objects of all
other acts of mind, rather than the Frege-Russell view
that there is something distinctive about the objects of
judgement.

1. loc. cit.
2. Principles, p.449.

Developing his theory of judgement, Moore distinguishes a proposition - something asserted or affirmed - from the psychological processes of asserting or affirming. Like Brentano, Moore at this stage sees judgement as the asserting or affirming of objects of conception, and like Brentano, he compares the affirming of concepts, that is, the asserting of propositions, with the process affirming or positing existents.[1] It is interesting to note that having reached a distinction like Brentano's between acts and objects of thought, Moore also adopts the existential form as the paradigm judgement-form.

Moore further distinguishes a proposition from the language in which it might be expressed - and here we find a very important difference between his theory and Russell's. "A proposition", Moore holds, "is composed not of words, nor yet of thoughts , but of concepts".[2] Now Russell generally does not recognise the distinction between propositions and the language in which propositions are expressed, and so, in opposition to Moore, he continues to speak as if propositions are constituted to

1. op. cit., p.183.
2. op. cit., p.179.

some extent by words. For example, Russell says that a
proper name "occurs in a proposition" and also "is...the
subject that the proposition...is about".[1] In the same
passage too, he says that "adjectives and verbs...are
capable of occurring in propositions as parts of the
assertion". The same confusion of signs and what they
signify is found in Russell's theory of constants and
variables;[2] and indeed runs right through his theory of
propositions and their terms. Strictly speaking, Russell
should distinguish between propositions and the language
in which they are expressed, because (according to one
account at least) propositions belong to the realm of being,[3]
whereas the language which expresses them is firmly en-
trenched in this world.

Moore's distinction between signs and what
they signify and its bearing on his theory of propositions
are more clearly brought out in his later article on
"Truth and Falsity" in Baldwin's Dictionary of Philosophy
and Psychology (1902), where Moore explicitly distinguishes
between a "statement" and a "proposition". A statement
is a "mere grammatical sentence or collection of words"

1. Principles, p.43.
2. See, for example, Principles, p.6.
3. See ibid., p.449.

which signifies a proposition.[1] And in reaffirming his

belief in the objectivity of propositions, Moore invokes

the argument – previously used by Frege – that if two

people can know the same truth, then the proposition which

is true must be something public and accessible to a

variety of minds, rather than part of any individual's

private mental processes.[2]

In this later article, Moore gives a much

clearer statement of the theory of propositions he had

proposed to Russell. Here he strenuously denies the view

that truth in judgement consists in some correspondence

between reality and our idea of reality, and argues that

there can be no such relation because the object of our

belief is identical with some reality.

> "Once it is definitely recognised that the
> proposition is to denote, not a belief nor a form
> of words, but an object of belief, it seems plain
> that a truth differs in no respect from the reality
> to which it is supposed merely to correspond...the
> truth that 'I exist' differs in no respect from the
> corresponding reality – 'my existence'".[3]

In this passage, Moore comes very close to

Brentano's theory of judgement, and in fact Moore's anal-

ysis of the proposition that I exist is precisely the sort

of analysis that Brentano makes of judgements about existent

1. Vol. II, p.717.
2. op. cit., p.717. Compare Geach and Black, pp.59ff.
3. op. cit., p.717.

objects. But whereas Brentano tries to show that all
judgements are concerned with real objects of experience,
Moore - like Meinong - rejects the existential view, and
argues that not all judgements are concerned with existent
objects or what he calls "concepts with existence", thus
suggesting the implication, which Russell draws, that
judgements can be about non-existing objects, that is,
objects with mere being. But although Moore and Russell
at this stage believe in the "non-existential nature of
propositions", neither attempts to work out in detail a
theory of propositions about objects that do not exist.
Russell generally confines his attention to terms rather
than propositions, and Moore goes no further than allowing
that there can be propositions which are not about exist-
ing objects. Neither Russell nor Moore makes any serious
attempt to construct a denotationist theory of proposition-
meanings in general, corresponding, say, to Meinong's
theory of objectives, although some such theory is certainly
implicit in the doctrines to which they both subscribe at
this time.

As far as Russell is concerned, the theory of
Being enunciated in the _Principles_ represents the most

extreme position he reaches in pursuing the doctrine that every meaningful expression stands for some object other than itself, which is to be regarded as its meaning. Any further development along these lines is precluded by Russell's discovery that, with some expressions, it is self-contradictory to suppose the existence of a corresponding object. In chapter X of the Principles, Russell discusses this problem in various forms, the most important and famous of which is the contradiction concerning the class of all classes that are not members of themselves.

In his theory of classes, Russell distinguishes between a class "as one", and a class "as many".[1] The class of all men, he argues, is the class of men considered "as many", as a collection of individuals, and this he distinguishes from the class the human race, which is the totality of men considered "as one", as a distinguishable entity over and above individual men. The human race, Russell considers, is something distinct from all men, because what is true of the former is not necessarily true of the latter. For example, the class the human race as one is denoted by the term classes of all rational animals, but this is not true of all men, as many. So, according

1. See Principles, chapter VI, pp.66ff.

to Russell's official theory of meaning in the Principles,
the realm of Being should contain not only objects corres-
ponding to the names of each and every man ("Socrates",
"Plato", "Aristotle", etc.) but also an object correspond-
ing to the expression "the human race". In other words,
Russell should conclude that any class "as one" has being,
over and above that of its members, "as many". But this
conclusion, Russell discovers, generates a contradiction,
in the following way.[1]

Assuming a class as one is distinct from
itself as many, it seems possible that a class as one may
be a member term of itself as many. For instance, the
class of all classes is itself a class; and so the class
of all classes as one, as a term, must evidently be in-
cluded within the class of all classes, considered as
many. In other words, the class of all classes apparently
includes itself as a member term. Similarly, the class of
all terms which are not men is itself a term which is not
a man; and so this class also includes itself as a term.
Now it also seems that there are classes which do not
contain themselves as members: for example, the class of
terms which are men does not include itself because it is
not a man. So we can evidently divide classes into two

1. See Principles, chapter X, p.102.

types – those which are members of themselves and those which are not members of themselves.

Russell now considers whether we can group together into the one class all the classes which are not members of themselves. If we can, then the class we obtain is <u>the class of all classes which are not members of themselves</u>; and this class, according to his hypothesis, must exist both as one and as many. Russell now asks whether this class as one is a member of itself as many; but he finds that answering this question involves self-contradiction. If the class in question is a member of itself, then it does not belong to the class of all classes that are <u>not</u> members of themselves; and if it is to be a member of itself (as other classes can be) then it can only be so on condition that it is not a member of itself. So Russell's view that all classes can be regarded both as one and as many, and that classes either are or are not members of themselves leads to the paradoxical result that there is a class which, as one, cannot be either a member or a non-member of itself as many.

Russell's immediate reaction to the problem is to conclude that "the classes which as one are not

members of themselves as many do not form a class - or

rather, that they do not form a class as one, for the

argument cannot show that they do not form a class as

many".[1] Russell suggests that the contradiction can be

avoided by arguing that some classes do not exist as one;

and that certain propositions about such classes as one are

about nothing at all; and therefore are "meaningless".[2]

I shall return to the details of Russell's solution later

on. The important fact to note at this stage is that in

this paradox, Russell has discovered a striking exception

to the theory of meaning assumed in the Principles. Accord-

ing to this theory, "anything...that can be mentioned...

is sure to be a term" ... "every term is one", and "every

term has being".[3] But while the class of all classes

which are not members of themselves can be mentioned or

referred to, it cannot be allowed as a term, as one,

without self-contradiction. Russell is therefore forced

to conclude that this term, at least, does not have being.

In other words, Russell has discovered that although the

expression "the class of all classes that are not members

of themselves" has meaning in some way, that meaning

cannot be an object denoted by the expression, because

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1. Principles, p.102. See also p.104.
2. ibid., p.105.
3. ibid., p.43.

ascribing a denotation to this expression results in self-contradiction. And Russell can hardly ignore this exception to his theory of meaning, because the notion of a _class_, and of a _class of classes_ plays an essential part in his argument that pure mathematics deals only with notions definable in simple logical terms. The first step of this argument in Part II of the _Principles_ is the proof that any cardinal number can be defined as a _class of classes_;[1] and this definition employs the very notion that gives rise to paradox.

The discovery of this paradox probably marks the beginning of Russell's doubts about the denotationist theory of meaning adopted in the _Principles_. But after the completion of that work, Russell's doubts are confirmed by fuller acquaintance with the philosophy of Frege and Meinong. Russell's first study of Frege appears as an appendix, added to the _Principles_ after the completion of the main work;[2] and this is followed by a detailed investigation of Meinong's views, issuing in a series of contributions to _Mind_, under the title "Meinong's Theory of Complexes and Assumptions" (1904). In the course of these studies, Russell discovers that Frege and Meinong, in

1. See _Principles_, p.115.
2. Appendix A: "The Logical and Arithmetical Doctrines of Frege", pp.501ff.

their respective ways, have both developed a theory of meaning not unlike that of the Principles, and both, Russell decides, have struck trouble with it. Frege's notion of Werthverlauf ("value-range"), Russell argues, falls foul of the same contradiction that affects his own class as one;[1] and Meinong's theory of objectives produces results that Russell finds "intolerable": for instance, it infringes the law of contradiction by requiring us to admit that the round square both is and is not round.[2] Russell's reaction to the views of Frege and Meinong finds expression in his famous article "On Denoting", where Russell offers a new theory of meaning which promises to avoid the paradox about classes and obviate the necessity of admitting anything like a Meinongian Underworld.

In this article, Russell tries to show that a denoting or referring expression does not have any meaning in itself, by standing for some object or entity, but has meaning in the context of a proposition-sentence; and that the meaning of a proposition-sentence which contains a denoting expression can be fully explained or expressed without mentioning any object which the denoting ostensibly

1. Principles pp.484ff, pp.510ff. See also "Frege on Russell's Paradox", Geach and Black, pp.234ff.
2. See Logic and Knowledge, p.45. See also Russell's review of Untersuchungen zur Gegenstandstheorie und Psychologie, Mind, XIV(05) p.533.

denotes.   Russell tries to establish this thesis by tak-
ing sentences which contain denoting phrases and reformu-
lating them as sentences which preserve the meaning of the
originals but which contain no denoting phrases. If all
sentences containing denoting phrases can be translated
in this way, then it will be unnecessary to suppose that
denoting phrases mean what they ostensibly denote, and
hence it will be unnecessary to assume the existence of
meaning-entities corresponding to denoting phrases. This
theory then promises to be an Occam's Razor to cut away
the meaning-entities admitted by Frege and Meinong, and
by Russell himself in the Principles.

For Russell, a "denoting phrase" is virtually
any expression capable of functioning as subject or object
of a verb: for example, "everything", "nothing", "some-
thing", "a man", "some men", "all men", "the present King
of France", "the revolution of the sun around the earth",
and so on.[1] Russell does not attempt to define denoting
expressions, but says that "a phrase is denoting solely in
virtue of its form".[2] Although Russell offers no comment
on this point, it is nonetheless rather important. As

1.   See Logic and Knowledge, pp.41-42. I use quotation
     marks when mentioning words, phrases, etc. Russell
     inconsistently uses these (p.41) or italics (p.42) or
     sometimes no special sign at all (p.41).
2.   ibid., p.41.

we saw in the previous chapter, Frege starts off by defin-
ing a referring expression or what he calls a "proper name"
as "that which stands for an object",[1] and therefore can
recognise referring expressions which <u>lack</u> a reference
only at the cost of going back on his definition. "Proper
names without reference" is a self-contradiction for Frege.
Russell however avoids this difficulty by giving a form-
alistic or syntactical description of denoting expressions:
a denoting expression is one which functions in a sentence
as a denoting expression, one which <u>ostensibly</u> denotes,
rather than one which <u>actually</u> denotes an object. And
given this account of denoting phrases, Russell is able
at the outset to recognise that "a phrase may be denoting
and yet not denote anything, e.g., 'the present King of
France'".[2]

Russell illustrates his theory of denoting
by considering first phrases which denote ambiguously,
the "most primitive" of these being "everything", "nothing",
and "something". According to Russell, the proposition
C(everything), that is, the proposition that everything is
C means that the propositional function C(x) is true for

1. <u>Geach and Black</u>, p.47, footnote 1. Compare <u>ibid</u>., p.
   57, p.60.
2. <u>Logic and Knowledge</u>, p.41.

all values of x.[1] Here, Russell argues, we can make
significant assertions about <u>everything</u> as subject, without
needing to admit that there is something called "every-
thing" being described, because the meaning of the sentence
"everything is C" can be fully expressed by the sentence
"for all values of x, x is C is true".[2] Similarly Russell
argues that we can make meaningful assertions about <u>nothing</u>
and <u>something</u> without supposing that there is a Nothing
or a Something. The sentence "C(nothing)" Russell renders
as "'C(x) is false' is always true"; and the sentence
"C(something)" he renders as "it is false that 'C(x) is
false' is always true".[3]

Russell now analyses sentences containing
other ambiguously denoting phrases, including ones in
which the denoting phrase occurs in the grammatical pred-
icate, as object of a verb. For example, Russell trans-
lates the sentence "I met a man" as "'I met x, and x is
human' is not always false".[4] And all assertion-sentences
where the phrase "a man" appears as subject he translates
as "'C(x) and x is human' is not always false".[5] Similarly

1. Concerning the distinction between propositions and
    propositional functions, see <u>Principles</u>, pp. 12-13.
2. <u>Logic and Knowledge</u>, p.42.
3. <u>loc. cit.</u>
4. <u>ibid.</u>, p.43.
5. <u>ibid.</u>, p.43.

Russell offers translations of sentences beginning with
"all men", "no men", and "some men", by replacing these
sentences with sentences stating the truth or falsity of
the propositional function "if x is human then C(x)".[1]

Finally Russell considers sentences contain-
ing phrases which denote unambiguously, and he concentrates
on expressions containing "the", which seem to designate
uniquely an individual of some sort. Frege had held that
"the singular definite article always indicates an object";[2]
but, as Meinong and Russell realise, this implies that
phrases containing "the" must indicate not only existent
or real objects, but also non-existent or unreal objects.
In "On Denoting", phrases containing "the" seem to Russell
to be "the most and difficult of denoting phrases",[3] mainly
because he has to explain the uniqueness suggested by such
phrases without referring to the uniqueness of any object
corresponding to the expression. He attempts to do this
by a more complex analysis involving the propositional
function "x is identical with y". Thus the sentence "x
was the father of Charles II" becomes "x begat Charles II,

1. loc. cit.
2. Geach and Black, p.45.
3. Logic and Knowledge, p.44.

and if y begat Charles II, y is identical with x".[1]
Similarly, "Scott was the author of <u>Waverley</u>" becomes
"one and one only identity wrote <u>Waverley</u>, and Scott was
identical with that one".[2]

Having outlined his theory of denoting, Russell
now discusses its advantages as compared with the theories
of Frege and Meinong. Compared with that of Frege, his
own theory of meaning, Russell notes, has no difficulty
in dealing with referring expressions which lack a refer-
ence. Frege starts off with the view that phrases of the
form "the so and so" express a sense and stand for a ref-
erence, some object; but when faced with the problem of
referring expressions which do not or cannot have a ref-
erence, Frege vacillates between arbitrarily supplying a
reference,[3] and bringing in an auxiliary theory of pre-
supposition,[4] neither of which solutions accords well with
his original account of referring expressions. In his
theory, however, Russell offers a general analysis of
assertion-sentences containing denoting phrases which de-
note nothing. Take the denoting phrase "the term having
the property F", and call this phrase "C". Now the sentence

1. loc. cit.
2. <u>Logic and Knowledge</u>, p.51. This is Russell's short
    translation. See the same passage at p.51 for his
    fully explicated version.
3. Geach and Black, pp.70-71.
4. <u>ibid</u>., pp.61ff.

"C has the property ϕ" means, according to Russell's abbreviated interpretation, "one and one only term has the property F, and that one has the property ϕ".[1] If there happens to be no term which has the property F, then C has the property ϕ is false for all values of ϕ. For example, the statement that the present King of France is bald is not a puzzling or nonsensical remark about some odd being called "the present King of France". According to Russell's analysis, this statement is really the joint assertion of two statements (one and one only entity is now King of France and that entity is bald), and since the first of these is false, the joint assertion itself is false.

Comparing his theory with Meinong's, Russell notes that the above analysis of phrases which denote nothing enables him to reject the assumption that all denoting phrases must denote something, and thus avoid Meinong's conclusion that denoting phrases which do not denote existent objects must denote objects of some other nature or status. "The whole realm of non-entities, such as 'the round square', 'the even prime number other than 2', 'Apollo', 'Hamlet', etc. can now be satisfactorily dealt with", says Russell. "All these are denoting phrases

1. Logic and Knowledge, p.52.

which denote nothing".[1] So instead of being committed to Meinong's conclusion that the round square both is and is not round, Russell can now argue that statements about the round square are all false, because it is not the case that there is one and only one entity which is both round and square.

In "On Denoting" then, Russell finds a way of escaping from the Meinongian Underworld; but in so doing, he is forced to abandon the analysis of propositions and the theory of meaning proposed in the Principles. As we saw earlier, Russell there argues that any proposition can be analysed into a term and an assertion made about that term. In "On Denoting" however, Russell finds that this simple analysis does not apply to propositions whose verbal expression contains a denoting phrase; for in such cases the proposition must logically be expressed in a form which contains no constituent term corresponding to the denoting phrase. But Russell does not entirely abandon the simple term/assertion analysis of propositions, for, in Principia Mathematica, he and Whitehead argue that the proposition "Socrates is mortal" expresses or "asserts" a complex fact in which Socrates himself is a constituent

1. Logic and Knowledge, p.54.

having the property of mortality.[1] In <u>Principia Mathematica</u>
we find a general distinction between propositions which
admit of the term/assertion analysis (for example, "Soc-
rates is mortal") and propositions which do not (for example,
"the present King of France is bald") and which require
special analysis of the sort illustrated in "On Denoting".
Now Russell and Whitehead at this stage do not decide
whether <u>all</u> propositions whose verbal expression contains
proper names (in the grammatical sense of the word) will
admit of the term/assertion analysis; but Russell himself

later argues that many expressions, for example, "Homer",
"Romulus", which grammatically are proper names are, in
fact, descriptions in disguise, or as he now calls them
"incomplete symbols",[2] and that sentences containing such
expressions must be treated in the same way as sentences
containing denoting phrases. However, I shall not consider
Russell's later attempts to decide what constitutes a
<u>logically</u> proper name as opposed to an ordinary proper name,
but shall confine my attention to <u>Principia Mathematica</u>,
where Russell and Whitehead outline the theory of incom-
plete symbols and use it to solve the contradiction about
the class of all classes that are not members of themselves.

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1. <u>Principia Mathematica</u>, vol.1, p.66. References are to
    the second edition, 1925.
2. See <u>Logic and Knowledge</u>, pp.241ff.

In the Introduction to <u>Principia Mathematica</u>, Russell and Whitehead extend the work of "On Denoting" by drawing an explicit distinction between proper names and incomplete symbols. A proper name is here described as an expression which "has a meaning by itself, without the need of any context", whereas an incomplete symbol is "a symbol which is not supposed to have any meaning in isolation, but is only defined in certain contexts".[1] Denoting phrases like "the author of <u>Waverley</u>" and "the present King of France" - "descriptions" as they are now generally called - are all incomplete symbols which, according to Russell and Whitehead, have no meaning out of context but contribute to the meaning of sentences in which they occur. Here Russell and Whitehead arrive at a distinction not unlike that drawn by Brentano between real and apparent names, or that drawn by Mill between categorematic and syncategorematic names. All three theories share the assumption that some expressions have meaning only through being used in conjunction with other expressions. But whereas Mill and Brentano offer no account as to <u>how</u> such expressions have meaning, Russell and Whitehead do try to suggest how incomplete symbols have meaning, and in so doing, adumbrate a new theory of meaning.

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1. <u>Principia Mathematica</u>, vol. I, p.66.

All incomplete symbols, they say, have a "meaning in use, but not in isolation".[1] By this they mean that expressions such as "the author of Waverley" and "the present King of France" do not have meaning through having a denotation (which, if they were names, they would designate regardless of context), but rather have meaning through contributing to the meaning of the sentences in which they are used. Hence they conclude that, in giving the meaning of an incomplete symbol, there is no point in trying to define the meaning of the expression in isolation (as Frege would do, for instance, by describing its sense); and instead they suggest that we can give the meaning of an incomplete symbol by defining its "uses", in propositions. "In seeking to define the uses of (an incomplete) symbol", they say, "it is important to observe the import of propositions in which it occurs".[2] In other words, Russell and Whitehead suggest that to know the meaning of an incomplete symbol is to know its uses, and that to know its uses is to know the sorts of things that can be said by sentences in which that symbol occurs. Admittedly they do little to develop this interesting suggestion, but they do illustrate what they mean by the following example. Take the proposition, The author of Waverley was a poet. Accord-

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1. Principia Mathematica, Vol. I, p.67.
2. ibid., p.67.

ing to Russell and Whitehead, we understand the meaning
of the expression "the author of Waverley" only when we
understand what is involved in asserting this proposition;
that is, firstly, that Waverley was written; secondly, that
it was written by one person, and not in collaboration:
and thirdly, that the author in question was a poet.[1]

Little more need be said of the theory of
meaning and use suggested in Principia Mathematica, because
Russell and Whitehead do not attempt to develop it into a
general theory of meaning, by considering, for instance,
whether the meaning of other expressions, in particular,
whether the meaning of sentences can be explained by des-
cribing their use in language. After Principia Mathematica,
Russell continues to advocate the theory of incomplete
symbols, but without attempting to reconcile it with his
theory of propositions, and the meaning of proposition-
sentences. Even as late as the "Logical Atomism" articles
(1918), Russell still tends to think of a proposition not
only as something true or false, but also as something linguis-
tic - a "complex symbol", a "sentence in the indicative".[2]
And far from attempting to explain the meaning of proposition-

1. Principia Mathematica, vol. 1, p.68.
2. See Logic and Knowledge, pp.185ff.

sentences in terms of their use or linguistic function,
Russell retains the earlier Moorean view that a sentence
is really some sort of name: "a name would be a proper
symbol to use for a person; a sentence (or a proposition)
is the proper symbol for a fact".[1] Inconsistently,
Russell continues to maintain this identification of
sentences and propositions along with his old view that
the bearers of proper names (that is, the men Socrates,
Plato, etc.) are themselves constituents of propositions
whose verbal expression contains those names.[2]

In the Introduction to Principia Mathematica,
Russell and Whitehead discuss a most important applica-
tion of the theory of incomplete symbols - to the notion of
the class of all classes that are not members of them-
selves. In the Principles, Russell found that this
notion gives rise to a self-contradiction which he tried
to avoid by assuming that the class in question does not
exist as one, and hence neither is nor is not a member
of itself. Having denied the existence of this class
as one, Russell was consequently forced to abandon his
supposition that all classes must exist both as one and

1. Logic and Knowledge, p.187.
2. ibid., pp.238-239.

as many,[1] and to conclude that "the class as one does not always exist".[2] But according to the theory of Being, it is self-contradictory to deny the possibility of any term, because to mention a term is to show that it has some sort of being. So, in order to deny the existence of certain classes as one without falling into such self-contradiction, Russell proposed a special theory of the meaning of statements about classes, which is adopted in Principia Mathematica.

According to this theory, a statement about a class is really a statement about a propositional function which defines that class. For example, statements about the class of men, on this view, can logically be treated as statements about the propositional function "x is human"; because the class of men consists simply of all the values of x which satisfy this function to make a true proposition.[3] To say that a class has members is to say that the propositional function which defines the class is sometimes true; and so, the statement that the class of men has so many members can be reformulated as the statement that the propositional function "x is human" is satisfied by so and so many values

1. See Principles, p.76.
2. ibid., p.105.
3. See Principia Mathematica, vol.I, pp.62ff; Principles, p.88; Logic and Knowledge, pp.265-266.

of x.

Now to solve the contradiction about the
class of all classes that are not members of themselves,
Russell and Whitehead take up a solution already sketched
in the Principles. This solution depends on the argument
that the function which defines a class may be satisfied,
truly or falsely, by a variety of arguments, but cannot
significantly be satisfied by a term which is the class
itself as one. Take, for example, the propositional
function "x is human" which defines the class all men, as
many, or the human race which is the same class as one.
According to Russell and Whitehead, various terms can be
substituted for x in this function to make meaningful state-
ments, or propositions which are either true or false. For
instance, if we substitute "Socrates" for "x", we obtain
the true proposition that Socrates is human; and if we
substitute "Fido" for "x", we obtain the meaningful but
false proposition that Fido is human. Every function,
they argue, has a "range of significance" which comprises
all the terms or constants which, when substituted for a
variable in a function, give meaningful statements, pro-
positions which may be either true or false. For every
function too, there are terms which fall outside its range

of significance, and if any of these is substituted for the variable, the result is neither true nor false, but meaningless. For example, the range of significance of the propositional function "x is mortal" would include individual things such as Socrates, Plato, etc., but not classes such as the human race; for it would be meaningful to assert or to deny that Socrates is mortal, but it would be meaningless to assert or to deny that the human race is mortal. In general, Russell and Whitehead argue, a class as one term falls outside of the range of significance of the propositional function which defines that class. So a class cannot significantly be made an argument in the function from which it itself is derived: for example, the propositional function "x is human" defines the class the human race, and, according to Russell and Whitehead, it is meaningless to assert or to deny that the human race is human.

Assuming that a class neither satisfies nor does not satisfy its defining function, Russell and Whitehead conclude that it is meaningless to say that a class either is or is not a member of itself. But if this is true, then no meaning can be assigned to the expression "the class of all classes which are not members of them-

selves"; and so the contradiction about this class disappears, because it is meaningless to ask whether it is or is not a member of itself.[1]

This solution of the contradiction depends on two important assumptions: firstly, that propositional functions have a limited range of significance, and that it is meaningless to complete a function with a term that falls outside its range of significance; and secondly, that classes are not objects, but are definable in terms of propositional functions.

In trying to justify the first of these assumptions, Russell and Whitehead draw on the theory of types, first suggested by Russell in Appendix B to the Principles, "The Doctrine of Types", and developed more fully in the later article "Mathematical Logic as Based on a Theory of Types" (1908).[2] This theory is an attempt to find logical reasons to explain why it is meaningless to complete functional expressions with arguments of the wrong range of significance or type, and thus to explain the difference between what can be said significantly (and truly or falsely) and what cannot be said significantly. I cannot

1. See Principia Mathematica, vol.I, pp.62-3.
2. Reprinted in Logic and Knowledge, pp.59-102.

consider here whether this attempt is successfull: for
Russell's theory of types marks the opening of a new era
in the history of philosophy. By drawing attention to
differences of type, Russell exposed a range of new prob-
lems in theory of meaning. Whereas logicians and philos-
ophers had previously studied meaning by reference to
the process of naming, they now - following Russell -
began to study meaning by seeing how expressions can be
used meaningfully or nonsensically in combination with
each other. The theory of incomplete symbols indicated
that some expressions have a meaning in use; the theory
of types indicated that some expressions have a nonsens-
ical use, in certain circumstances. In proposing these
theories, Russell initiated a logico-philosophical search
for rules which determine the meaningful or meaningless
use of expressions in logic and language.

The second assumption behind the solution of
the contradiction about classes is that a class is not an
object, like its members, but a mere symbolic convenience.
In the Principles, Russell had assumed that a class is
an individual object, and entity existing over and above
its members, and consequently he had thought that a name
for a class must refer to an object enjoying at least the

status of pure being. But the paradox concerning classes
that are not members of themselves convinced him that at
least some class-names cannot refer to an object, and there-
fore cannot have meaning by virtue of standing for an ob-
ject. Some alternative account was needed to explain the
meaning of class-names, and this was provided by the theory
of incomplete symbols. In "On Denoting", Russell had
argued that denoting expressions do not have meaning in
themselves by standing for the object they ostensibly
denote, but have meaning when used in the context of prop-
ositions. In support of this argument, Russell rephrased
sentences containing denoting phrases in such a way that
no mention was made of objects corresponding to denoting
phrases, thus obviating the need to assume the existence
of those objects. In Principia Mathematica, Russell and
Whitehead apply this analysis to sentences containing
class-names, arguing that such sentences are really about
propositional functions which define the classes appar-
ently referred to. Russell and Whitehead, it must be
noted, do not deny the existence of classes, but simply
argue that class-names can be treated as incomplete
symbols.[1] "The symbols for classes", they argue, "...are
incomplete symbols: their uses are defined, but they them-

1. Principia Mathematica, Vol. I, p.72.

selves are not assumed to mean anything at all....Thus

classes , so far as we introduce them, are merely symbolic

or linguistic conveniences, not genuine objects as their

members are if they are individuals".[1]

In this analysis of classes, we see the final

downfall of Russell's realm of pure Being. Classes, as

entities apart from their members had been important

occupants of this world, and, as we have seen, it was the

consideration of classes that first shook this world to

its foundations. I have tried in this chapter to trace

the evolution of the tools which enabled Russell to dis-

mantle his world of meaning-objects. What became of these

tools, and the uses to which they were later put, is

another chapter in the history of philosophy.

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1. Principia Mathematica, Vol. I, p.72.

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