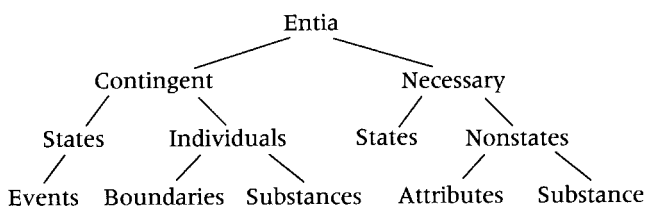# PART ONE

The Realistic Background

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INTRODUCTION

WHAT IS THE THEORY OF CATEGORIES?

This book is about the ultimate categories of reality. It is about
categories, not about *theories of categories.* What a category is may
be shown by depicting the table of categories that is defended
here.

A Table of Categories

It was Aristotle who first worked out a theory of categories.
But the general procedure that I will follow is not the one that
Aristotle followed in his treatise on the subject. And the theory
that I defend rejects many of the metaphysical views that are
generally associated with Aristotle: for example, the doctrine
of form and matter, the distinction between substance and
accident, and the "moderate realism" according to which the
only attributes that exist are those that are exemplified. Never-
theless, I will follow Aristotle and will make use of his insights
throughout this book.[1]

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THE NATURE OF THE PRESENT THEORY

The present theory is "Platonistic": it is a form of *extreme real-
ism.* There are *attributes* (properties). Some of them (e.g., being
a dog) are exemplified; some of them (e.g., being a unicorn)
are unexemplified; and some of them (e.g., being a round
square) cannot be exemplified. Classes or sets may be reduced
to attributes, and relations may be reduced to classes or sets.

There are *substances* and there are *events.* Neither can be de-
fined in terms of the other. Substances are individuals that are
not boundaries. Events are contingent states. Material things
are substances and persons are substances. But it is problem-
atic whether persons are material things.

What philosophers call *times* will be shown to be dispens-
able. There are good reasons for rejecting the view that events
are constructs out of attributes and times. Statements such as
"He has done that seven times" are reducible to tensed state-
ments that do not ostensibly refer to times but only to tempo-
ral relations.

Places are reducible to the individuals that may be said to
occupy those places. More exactly, statements ostensibly about
places may be reduced to statements ostensibly about individ-
ual things and the spatial relations that hold among those
things.

Appearances, visual and otherwise, are surfaces that give real-
ity a qualitative dimension. (Hence the adverbial theory of ap-
pearances is rejected.)

Our approach to philosophy is what Charles Sanders Peirce
has called "critical commonsensism." This approach is based
on faith in one's own rationality. Reason, as Peirce put it, not
only corrects its premises, "it also corrects its own conclu-
sions."[2]

We thus rely, albeit somewhat cautiously, on perception,
both inner and outer. I assume that our perception of our own
states of mind is a source of certainty and that the deliverances

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of external perception should be treated as innocent, epistemi-
cally, unless we have positive reason to call them into ques-
tion. We may thus be said to presuppose a *realistic* theory of
knowledge.

The remainder of this chapter is concerned with method-
ological questions. The actual development of a theory of cate-
gories begins in the following chapter.

THE BASIC CATEGORIAL CONCEPTS

The present theory, like any other, makes use of certain con-
cepts that are distinctly philosophical. And, like any other philo-
sophical theory, it takes certain philosophical concepts as un-
defined. In setting forth the theory of categories itself, the core
of this book, I use eight such undefined concepts. Three of
them are *ontological;* one is *intentional;* one is *psychological* but
not intentional; one is *temporal;* one is *spatial;* and one is *nomo-
logical*, pertaining to laws of nature. I also use an ordinary vo-
cabulary that is common to most investigators. This vocabulary
includes familiar expressions of elementary *logic*.

The undefined categorial vocabulary here referred to per-
tains to the concepts that are depicted in the table of categories
that I have set forth. Additional terms will be needed for other
topics to be discussed in this book – for example, the theory of
reference and the question of the primacy of the intentional.

We now consider the eight undefined categorial concepts.
Axioms for these concepts will be introduced at appropriate
places.

(1) The first undefined categorial locution is "x is necessar-
ily such that it is F." The relevant sense of "necessarily" is here
logical (or *metaphysical*) and not *causal*. Since even "logically
necessary" may be used in different ways in philosophy, it is
important to single out the principles that govern its present
use. These may be put somewhat informally as follows. The

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schematic letter "F" in "x is necessarily such that it is F" may be replaced only by a predicate expression in which no variables occur freely. The usual rules relating "necessarily" and "possibly" should apply; thus, "necessarily" implies "possibly," "not possibly not" implies "necessarily," and "not necessarily not" implies "possibly." [3]

(2) The second undefined categorial concept is that of being a *state* – being a thing that is a *state of* another thing. If you are thinking, then there is a state that is you thinking. States are terms of the temporal relations of before and after, and terms of the relation of causation.

(3) The third undefined categorial concept is that of being a *constituent* of another thing. Contingent things that are not states, and are therefore *individuals*, may be divided into (a) those that are necessarily such that they are constituents and (b) those that need not be constituents. (It is convenient to construe being a *part of* as a subspecies of being a *constituent of;* parts may then be said to be those constituents that are not boundaries.)

(4) The fourth undefined categorial concept is the intentional concept of *believing*. In the following chapter on the nature of attributes, we define the concept of an attribute by reference, in part, to the *content* of an act of believing. (In discussing intentionality we assume, with Descartes and Brentano, that one cannot *believe that something is F* without thereby *thinking about something being F*. In other words, one cannot have anything as the *content of a belief* without having that same thing as a *content of an act of thought*.)

(5) The fifth undefined categorial concept is *psychological* but not intentional. I express it by means of "x senses y." In saying that the attribute of sensing is psychological, I mean that it can be exemplified only by that which is capable of thinking. And in saying that sensing is not intentional, I mean this: The locu-

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tion "a senses b," when it is used to express this concept, im-
plies: "There exists an x and there exists a y, such that x senses
y." We consider this concept in detail in Chapter 13.

(6) The sixth undefined categorial concept is a *temporal con-
cept*. This is the relation of *wholly preceding* a transitive and
asymmetrical relation between states. We follow Russell, who
has shown how other temporal relations may be defined in
terms of that of wholly preceding.

(7) The seventh undefined categorial concept is a *spatial*
concept: "x *spatially overlaps* with y." Two rectangular boards,
so located that one is on top of the other, may take the approx-
imate form of an "I" or an "L" or a "T" or an "X" or a "Y." This
concept of overlapping is used to throw light on the spatial
nature of material things and on the distinction between such
things and the boundaries that they contain (surfaces, lines,
and points).

(8) Finally, I make use of a *nomological* concept, to be ex-
pressed by means of the locution "It is a law of nature that p,"
where the schematic letter "p" may be replaced by any well-
formed declarative English sentence. In Chapter 10, I argue
that causation is a nomological concept, a concept pertaining
to the *laws of nature*, and that the laws of nature cannot be
reduced to mere Humean regularities or "constant conjunc-
tions."

Our eight undefined categorial locutions, then, are the fol-
lowing:

(1) x is necessarily such that it is F;
(2) x is a state of y;
(3) x is a constituent of y;
(4) x believes that something is F;
(5) x senses y;

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(6) x wholly precedes y;

(7) x spatially overlaps with y;

(8) it is a law of nature that p.

In addition to making use of these eight undefined locutions, this analysis makes use of a language in which there are distinctions of *tense*. There is thus a distinction between "x is F," "x was F," and "x will be F."

Theories of categories, it is sometimes said, may be divided into those that are *substance philosophies* and those that are *process philosophies*. The former find no place for events or processes among the ultimate constituents of the world; the latter find no place for processes or events. The present theory finds a place for both.[4]

THE RELEVANCE OF LANGUAGE TO THE THEORY
OF CATEGORIES

Aristotle says that in discussing the categories, he is concerned in part with our ordinary language. And he says this often enough to provide encouragement to those contemporary philosophers who believe that the statements of metaphysicians, to the extent that they are not completely empty, tell us something about our language. One of our principal concerns, however, is that of finding the *ontological presuppositions* of statements about language.

Where some readers of this book may expect to find discussions of language, they will find discussions of thinking and intentionality instead. But this does not mean that I underestimate the fundamental role that language should have in serious philosophy.

I have begun by singling out those categorial concepts that are taken as undefined. Next, the additional concepts that are needed will be introduced in a series of definitions. These definitions embody the principal results of our investigations,

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and they tell us what we are ontologically committed to. Like the critical commonsensism that we assume preanalytically, the definitions are intended to guarantee that our results will be falsifiable.

We now turn to the theory of categories, beginning with an intentional account of the concept of a property or attribute.

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THE NATURE OF ATTRIBUTES

INTRODUCTION

The present theory of attributes is, as already mentioned, a version of Platonism. There are attributes. Some are exemplified; some are not; and some cannot be.

To the skeptical reader, I would first point out that someone should try to work out the consequences of such an ontology. There seem to be no available examples. I would add, moreover, that our apparent extravagance here enables us to achieve a compensating parsimony elsewhere – for example, in connection with those entities that are called *propositions*.

THE CONCEPT OF AN ATTRIBUTE DEFINED

We begin with the concept of the *content* of an act of believing.

> D1   x has being-F as the content of an act of
>   believing =Df (1) x believes that there is a
>   y such that y is F; and (2) x does not be-
>   lieve that there is anything that is F if and
>   only if it is not F

I shall comment presently on clause (2), which is inserted to avoid the consequences of Russell's paradox.

The reference to *believing* in clause (1) may be replaced by a reference to any other intentional attitude – for example, *considering* and *endeavoring*. I assume, with Descartes, that every such attitude implies the attitude of *thinking*. Hence "an act of thinking" may replace "an act of believing" in this definition.

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> D2   x exemplifies being-F =Df (1) Being-F is
> possibly such that it is the content of an
> act of believing; and (2) x is F

The present uses of "being-F" and of "F" may be explicated as
follows. The letter "F" is a predicate schema that may be re-
placed by any English predicate (e.g., by "green"). When "F"
is replaced in "being-F," then the result is a *term*. In the defini-
tions that immediately follow, "being-F" occurs in contexts
that are subject to quantification. "Being green is exemplified
by many leaves," for example, implies "There *exists* an x such
that x is exemplified by many leaves."

> D3   Being-F is an attribute =Df Being-F is pos-
> sibly such that it is the content of an act
> of believing

> D4   P conceptually entails Q =Df P and Q are
> necessarily such that whoever has P as the
> content of an act of believing also has Q as
> the content of an act of believing

ATTRIBUTES AND RUSSELL'S PARADOX

Russell's paradox arises in connection with the class of all
classes that are not members of themselves. If we say that that
class *is* a member of itself, then our statement implies that it is
not a member of itself. And if we say that it is *not* a member of
itself, then our statement implies that it *is* a member of itself.

Here we follow Quine's proposal for dealing with such para-
doxes. He summarizes his conclusions this way:

> All these antinomies and other related cases may be inactivated
> by limiting the guilty principle of class membership in a very
> simple way. The principle is that for any membership condition
> you can formulate there is a class whose members are solely
> the things meeting the condition. We get Russell's antinomy
> and all the others of its series by taking the condition as non-
> membership in self, or non-membership in members of self,

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