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THE METAPHYSICS OF BEHAVIOR

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

by

David C. Mellick, B.A., M.A.

* * * * *

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1973

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ACKNOWLEDGMENTS

Drs. Ivan Boh, Virgil Hinshaw and Bernard Rosen have provided encouragement and practical advice when they were greatly needed. Their encouragement at different stages of my philosophical development has been appreciated.

Courses presented by Drs. Peter Machamer and George Pappas and the practical advice of Dr. Wade Robison were valuable in the writing of this dissertation.

I am indebted to my reading committee consisting of Professors William Lycan, Andrew Oldenquist and Bernard Rosen. Professor Oldenquist helped me to focus on some general issues which needed clarification. Professor Lycan, co-adviser, provided courses in metaphysics, materialism and functionalism which were the fertile ground within which many of the ideas in this dissertation germinated. He has been a helpful critic and a midwife of ideas. Professor Rosen's energy and dedication to his advisory duties is reflected in his critical reading of my dissertation before and after a two week interval in which he had scheduled open heart surgery and recuperation. I have benefited much from his historical breadth and cogent argumentation.
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CHAPTER I
INTRODUCTORY ISSUES

Introduction

Imagine yourself driving in heavy traffic. In front of you a motorist sticks his arm out the window of his automobile and soon after, the automobile turns left. Now think of the ways in which this event can be described.

1) The driver's left arm was extended perpendicularly from the driver's trunk. The arm was extended so that the lower side of the upper portion of the arm was propped on the door. At the end of the arm the index finger extended away from the palm of the hand.

2) The driver signalled.

In the above sentences, behavior is being described by the use of expressions such as "extending the arm perpendicularly" and "signalling." In (1) the body and body movements are being described; in (2) the behavior is being characterized in a different way. This dissertation is about various ways in which, say, a signalling is related to bodily movements. The two main ways to go about
explicating the relationship will be (a) the use of some notion of ontological basicness such that bodily movements can be said to be basic and (b) patterns of metaphysical analysis borrowed from mind/body metaphysics.

In this chapter, I will discuss the notion of ontological basicness in general and how the notion is used in ontological inquiry. I will also discuss various ways of characterizing behavior. It is only after a presentation of the latter that the present inquiry can be understood.

In Chapter II, I will show the role of the present inquiry (the metaphysics of behavior) in what has come to be called "action theory." Chapter II is the central chapter for presenting the parallels between the metaphysics of behavior and mind/body metaphysics.

This dissertation germinated out of an interest in what I call, in Chapter VIII, "metaphysical behaviorisms." The latter is a set of theories of mind which treat the mind/body problem as a problem solved by arriving at a position in the metaphysics of behavior. In Chapter VIII, I shall attempt to show how mind/body metaphysics and the metaphysics of behavior interrelate.

Section One - Types of Behavior

Human beings have the capacity to discern various types of behavior and to describe behavior in various ways.
Humans learn to differentiate mere bodily movements, such as the random or meaningless movement of the arm, from an act of raising the arm in order to get attention; the mere activity of pacing from pacing worriedly; the mere lifting of the legs and setting them down in a certain way from pacing; and mere absence of bodily movement from trying not to move.

There are various questions and consequent inquiries which arise from this particular phenomenon. Some central questions are the following: Can we say that what is characterized by one class of characterizations is ontologically basic in some sense with regard to what is characterized by another class? Is one class more epistemologically basic in some sense than another class? What types of characterizations of behavior can we discern?

Few philosophers, if any, deny that there are types of behavioral characterizations. In fact much literature in the philosophy of mind has been written to account for various types of behavior. Nicholas Rescher, for example, in his "On the Characterization of Actions" presents various fundamental contrasts such as actions and mere behavior.

An agent can be said to "do" various things (gasp or hiccough, tremble for fear or beam for joy) with respect to which the exercise of agency does not come into play. Such doings are not to be classed as actions: an action—in contrast with something that "happens to" one or that one "just happens
to do"—is an item of behavior over whose occurrence one exercises control.  

Rescher also contrasts action with mental acts.

An action must have the aspect of physical activity, either positively by way of doing or negatively by way of refraining. Thus purely mental acts done solely in toto interno cannot qualify as actions. Giving overt verbal agreement is an action, giving tacit assent is not; being worried is not of itself an action, though pacing worriedly is. Every action must have an overt physical component and involves bodily activity of some sort. It is thus no accident that paradigm actions are done by persons—i.e., agents with corporeal bodies.  

That there are various ways to typify behavior is not controversial; and in spite of verbal differences in labels used, there are recurrent distinctions or contrasts made in both philosophical and psychological literature—contrasts such as those Rescher gives above. It takes very little verbal sophistication to differentiate between action descriptions and mere behavior descriptions. Children can sometimes discern between just playing tennis and playing tennis attentively, between John's kicking the football inadvertently and his kicking it for the purpose of scoring  


\[\text{2} \text{Ibid., p. 248.} \]
some points. Although it takes little sophistication to be able to discern behavior under various characterizations, the program presenting types of behavioral characterizations is left to philosophers and psychologists. Some psychologists have devoted a great deal of effort to the examination of various types of characterizations of behavioral responses. There is a great deal of agreement among psychologists that psychological questions and answers should be expressed in terms of behavior, but just what are those terms? E. R. Guthrie in his 1935 work on the psychology of learning, attempted to define responses as movements involving a particular set of muscles. "Thus, one class of behavior movements involved flexion of the forearm muscles. Another class of events would be based upon the contraction of jaw muscles. Another behavioral unit might consist of movement of the vocal cords." Guthrie's delineations of behavior and those like it, Lawrence Simkins calls "topological response definition, where topology refers to movements of a certain set of muscles." Guthrie makes a distinction between movements and acts. "The word 'acts' refers to the

---


4. Ibid., p. 155.
consequences of movements of muscles." The act of chewing and smiling might be the same topological behavior but they are different acts. Simkins suggests that one is hard pressed to give a topological definition of verbal behavior. Upon closer analysis we see that an adequate definition of verbal behavior "depends not only on the sounds emitted by movement of the vocal chords, but also upon the content of sound emission from movement of vocal musculature."6

One of the most thorough attempts at partitioning types of behavior is that of D. S. Shwayder in his The Stratification of Behavior.7 Shwayder's is a program of definition per genus et differentiam, where the ultimate genus is animal movement. The species just "below" animal movement on the Tree of Porphyry, a la Shwayder, is behavior. Next is action (perceptually guided behavior); proficient behavior (learned behavior) and conformative behavior (social behavior in conformity with or in violation of rules) are other species in consecutive order "down" the Tree.8 In the introductory paragraph of Part Three of the book, Shwayder

5Ibid., p. 155.
6Ibid., p. 156.
8Ibid., p. 203.
presents his program in capsule form.

We have defined behavior as a kind of animal movement, and action as a kind of behavior. In this part we shall extend this programme of definition by specific differences first to define what I call proficient behavior, or behavior involving skill, as a kind of action, and then to define what I call conformative behavior, or rule-considering behavior, as a kind of proficient behavior. Subsequently the use of Language will be defined as a kind of conventional behavior, which is itself a kind of conformative behavior. This progressive partitioning of behaviour by specific differences will be effected with regard to the situation of an imagined conceptualizing observer of animal movement. Species are to be detached from their respective genera by drawing attention to conditions which must be met if the supposed observer may truly assert that an act of a certain kind, falling within the species in question, is done by the imagined agent. These are what we earlier called conditions for doing. Because this is an attempt to produce explanations of certain kinds of (verbal) characterization of behaviour, the result might be styled a conceptual stratification of behaviour.\footnote{Ibid., p. 201. In Chapter VI, Shwayder will be discussed in greater detail.}

Shwayder's taxonomy of behavior has, then, the following categories in a genus-species hierarchy: animal movement, behavior, action, proficient behavior, conformative behavior and conventional behavior. Defining conditions delimit each species. To understand the meaning of these technical categories it will be necessary to enumerate the...
defining condition, the differentiae, which delimit a species from its genus. If, for instance, behavior is animal movement of a certain kind and action is behavior of a certain kind, we must ask what characteristics pick out behavior from mere animal movement. We can go further to determine what characteristics pick out action from mere behavior, proficient behavior from mere action, conformative behavior from mere proficient behavior and conventional behavior from mere conformative behavior.

Most literature in the philosophy of action is an attempt to provide the differentiae, the conditions for a bit of behavior's being an action rather than mere behavior.

"The movements of human beings (and other animals) are often actions which the agent performs intentionally, whereas plants and inanimate things are merely passive objects which are acted upon. Human beings can do things and make things happen on purpose, they are not merely things to which things happen." ¹⁰ What is controversial is not the fact that there is a fundamental contrast between our common ways of characterizing mere behavior and action; the controversy lies in determining what accounts for that difference. In Wittgenstein's formulation, "What is left over if I subtract the fact that my arm goes up from the fact that I raise my

Jerome Shaffer examines five theories of action which account for "what is left over" when mere behavior is subtracted from intentional action. What is being given in these theories are various differentiae.

(1) There is the view that intentional actions are those movements which are caused by particular sorts of mental events or states. On this view, what distinguishes my raising my arm is the kind of event or state preceding and causing the movement. What kind of event? Typically, on this theory, having certain reasons or having a decision, choice, or resolve to do the act. (2) On the theory of agency, the cause of the movement is not an event, rather, simply the agent himself. When I act, it is simply I who cause the movement. (3) A performative theory is that to say a movement is an intentional action is not to describe or report how things are or what caused what; it is to perform the act of assigning responsibility to an agent for the movement. (4) Some philosophers hold that the peculiar feature which makes a movement an action is that the movement is to be explained by citing a goal rather than some pre-existing cause such as a state, event, or agent. Finally, (5) there are contextual accounts of action, in which the crucial thing about holding that a movement is intentional is claimed to be that the movement is thereby conceived or described in a context of rules, norms, or practices.\(^\text{12}\)

What is uncontroversial and what any action theorist would accept is that we do have a diversity of types of

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\(^{11}\) Ludwig Wittgenstein, *Philosophical Investigations* paragraph (621).

\(^{12}\) Shaffer, pp. 80-81.
behavioral characterizations in our present way of looking at behavior. The theories arise in order to give an account of the distinction between behavior such as that described as an arm's going up and such as that described as my raising of my arm. Whether or not our common ways of thinking about behavior reflect the nature of behavior (whether or not the distinctions in our language, as commonly used, reflect reality) is a controversial issue. But we must still begin our inquiry with our present ways of characterizing behavior.

Section Two - Basicness Among Collateral Actions

Ontologists attempt to determine ontological basicness with reference to a transitive asymmetrical, irreflexive relation of dependence or requiredness among things. (My use of 'things' here is not a technical use.) Strawson's notion of identifiability dependence is a standard case of this where ontological basicness is presented with reference to such a relation. For Strawson, one may speak of two important general types of categories of particular, the identification of the members of one of which is dependent on the identification of members of the other. The dependent type is the class of what might be called 'private particulars'--compromising the perhaps overlapping groups of sensations, mental events and in one common acceptance of this term, sense data. The type on
which it is dependent is the class of persons.\textsuperscript{13}

One of the most appealing ways of picking out ontologically basic kinds of things has been the use of some notion of epistemological basicness such that what things are directly known (specified in some way) are, ipso facto, the basic kind of thing in an inventory of what there is. There are, of course, other indexes for determining basic kinds of things in an inventory of what there is—that is, there are other notions of requiredness and dependence. Other examples are "Composed things require the existence of simple things but not vice versa" and "This kind of things being G requires that this kind of thing be F but not vice versa."\textsuperscript{14} In the latter case we can give the ontological status of characteristics or classes of characteristics (e.g. moral and non-moral characteristics).

Ontological basicness is parasitic upon or defined in terms of other areas of inquiry. That is, the notions of requiredness can be specified in terms belonging to such


\textsuperscript{14}Bernard Rosen has formulated a notion of a metaphysically basic characteristic in the following way. X being F is metaphysically basic when: 1. X being F does not require that X have any other particular characteristic, and 2. It is required that X be F on some occasions independently of any other particular characteristics. This is from an unpublished paper entitled "Epistemic and Metaphysical Basicness."
inquiries as speaker-hearer communication, epistemology, and various other sciences. We can, with a little imagination, think of various specifications of ontological dependence presented in terms of identifiability dependence, epistemological dependence, and explanatory dependence.\textsuperscript{16}

One might call the meta-ontological position that I am taking, "ontological definism;" this is parallel to meta-ethical definism.\textsuperscript{17} Just as the meta-ethical definist replaces ethical terms such as "good" with non-ethical terms such as "what God demands," I think that judgments using key ontological terms such as "ontological priority," "fundamental individual," "ontologically basic," "really real" formulation of explanatory dependence might be presented in the following way: One class of things, B, is explanatorily dependent on another class of things, A, if changes and variations of members of A are required to explain changes and variations of members of B but not vice versa. I think that the distinction between macro-objects and micro-objects is made, at times, along the lines of explanatory dependence. At the base of each hierarchy of dependence may be a class of things which is not dependent on other classes of things but other classes of things are dependent on that class of things.

\textsuperscript{15}I am, of course, thinking of Strawson here.

\textsuperscript{16}A formulation of explanatory dependence might be presented in the following way: One class of things, B, is explanatorily dependent on another class of things, A, if changes and variations of members of A are required to explain changes and variations of members of B but not vice versa. I think that the distinction between macro-objects and micro-objects is made, at times, along the lines of explanatory dependence. At the base of each hierarchy of dependence may be a class of things which is not dependent on other classes of things but other classes of things are dependent on that class of things.

\textsuperscript{17}A meta-ethical definist is one who believes that moral terms such as 'right,' 'wrong,' 'goodness' and 'intrinsically valuable' can ultimately be eliminated and replaced by nonmoral terms. For a more precise view of various classifications of definist positions see Garner and Rosen's Moral Philosophy (New York: Macmillan, 1967) Chapter II.
can be analyzed or defined or replaced by the use of various notions of basicness from a number of fields of inquiry. Any ontological judgment of ontological priority or of what is ultimately real can be reduced or expanded by analysis or definition to another expression which has the same meaning or significance and which contains no expressions such as "is ontologically prior" and "is ultimately real." The definiens of such analyses are drawn from a wide range of fields of inquiry. For that reason an inquiry into ontological basicness can be seen to be a parasitic inquiry.

To explicate 'ontological basicness' it will be important to explicate the notion of a hierarchy. A hierarchy can be specified in terms of (a) an asymmetrical transitive and irreflexive relation, $R$, and (b) the classes of things which are relata. Now when I make a claim to definism I am claiming that all notions of $R$ can be given from a wide variety of fields of inquiry.

My claim to ontological definism is with respect to policies which are formulated in order to answer this question: Among the kinds of things that exist, that is, that have ontological status, what kinds or types are basic?

Let me further explicate the term "hierarchy." Imagine a kingdom consisting of the following classes of people: a nobility class, an ecclesiastical class, a warrior class and at the very bottom, a worker-peasant class. Here we can talk of social strata and we might rate the classes
according to the degree of their power and privilege. One rating might be the following (from the most powerful and privileged on down to the least powerful and privileged):

1. nobility class
2. ecclesiastical class
3. warrior class
4. worker-peasant class

When we specify such hierarchies we usually specify them in terms of (a) an enumeration of classes and (b) a specification of a relation which is asymmetrical, transitive and irreflexive.

The relations we are dealing with in the above hierarchy are "is more powerful than," "is less powerful than," "is more privileged than" and "is less privileged than." Each of these relations is asymmetrical. If, for instance, the nobility class bears one of these relations to the ecclesiastical class then the ecclesiastical class does not bear it to the nobility class. If the nobility class is more powerful than the ecclesiastical class then it is not the case that the ecclesiastical class is more powerful than the nobility class. (Contrast this relation with "is near to." If X is near to Y then Y is near to X.)

The relations are transitive. If the nobility class is more powerful than the ecclesiastical class and the ecclesiastical class is more powerful than the warrior class, then the nobility class is more powerful than the warrior
class.

The relations are irreflexive. They are not relations which any of the classes bear to themselves. (e.g. The nobility class is not greater than or less privileged than itself.)

In the quote from Strawson above, the hierarchy consists of two classes of particulars: private particulars and persons. Persons are basic given the following value of R: (X's are dependent for their identification and re-identification on Y's but not vice versa.) And all other classes of particulars in the realm of discourse are dependent on Y's.

Just as, in our example above, there is no other class having members which are less privileged and powerful than the worker-peasant class, and all other classes in the kingdom are more powerful and privileged, there is, for Strawson, no class of particulars upon which the identification and the reidentification of persons is dependent such that the dependence is asymmetrical. This is not to say that there could be no classes of things which are mutually dependent, i.e., could both be basic classes and dependent for their identification and reidentification on each other. There may be another class which shares the position of being basic, e.g., both in power and privilege or identifiability independence.

All of the values of R in this work will be
asymmetrical, transitive and irreflexive. One of the things we will be looking for in this work are various values of R such that bodily movements can be viewed as basic within a set of numerically diverse actions.

Dependence relations which I will be cataloging may take numerically diverse actions as their relata but it should be noted that there are some issues which I do not want to prejudge. Some philosophers will want to claim that what we will be cataloging are not relations between numerically diverse actions but between, for example, ways of knowing, referring to, or characterizing one and the same action. If the latter is true, the R's contain intensional contexts involving various types of action descriptions. For example, one might talk of the dependence of our knowledge of signalling upon our knowledge of a mere bodily movement while claiming that the two descriptions are codesignative.

In Chapters III and IV, I shall be discussing the thesis that collateral act descriptions codesignate. I shall be discussing the identity thesis\(^\text{18}\) which will make a case for the claim that the R's involve intensional contexts.

But I am getting ahead of myself. At the beginning of this chapter I presented a set of action descriptions which

\(^{18}\) 'Identity thesis' will be defined in Chapter II.
can be unscrambled in the following way: First let us treat all the descriptions in (1) as bodily movements—all that were involved in signalling. Secondly, let us look for recurrent prepositions or prepositional phrases such as "by" or "in order to." Nearly every time we ascribe an action to an agent, A at time t, we can, with reference to t and A, talk of collateral acts of A or collateral descriptions of one and the same act. Many times we can separate these collateral act descriptions by "by" or "in order to" or "while" or "is a consequence of."\(^{19}\)

In our example we could say:

1. The driver extended his arm in order to signal.
2. The driver signalled in order to make a left turn.
3. The driver signalled in order to make a left turn in order to fulfill his legal responsibilities.

We could also say:

1. The driver's fulfilling his legal responsibility was a consequence of his signalling.
2. The driver's signalling was a consequence of his extending his arm.

A collateral action description is what is true of some one agent at some one time; it is a description of the

agent's peripheral behavior involving not more than one isolated area of the body. Unfortunately the "is a consequence of" locution and the "in order to" locution are not adequate for demarcating collateral action descriptions from noncollateral action descriptions. The consequences of an action may go on indefinitely if one reads the locution as "is a causal consequence of." The locution, "is a consequence of" is only helpful, if at all, in its noncausal sense.

Suppose that Mary is doing two things at once with different parts of her body. Suppose that she is singing and washing dishes at the same time. "Singing" and "washing dishes" are not part of the same set of collateral action descriptions since bodily areas involved in singing can be isolated from the bodily areas involved in washing dishes.

The term "involving" is, in the above definition, a neutral term. That is, it is not being used to claim that the set of descriptions all refer to one behavioral item. There is another way that a set of descriptions of an agent's peripheral behavior can involve not more than one isolated area of the body: The descriptions may refer to diverse relata in a hierarchy, not more than one relatum of which is a bodily occurrence. Part of the focus of this dissertation will be on the presentation of non-neutral, theory-laden interpretations of "involving."

The phrase "peripheral behavior" will be explicated in more detail in Chapter VIII. Peripheral behavior is to be contrasted with central behavior such as neural firings, increases in blood pressure, the beating of the heart, and other events which occur "inside our skins." Peripheral behavior descriptions describe the topographical features of bodies, the motion of bodies and bodily parts and, finally, actions.

I borrow the technical term "collateral action" from D. S. Shwayder, op cit., p. 138.

Andrew Oldenquist uses the prepositional phrase "is a consequence of" such that "Y can be a consequence of X when Y is not at all caused by X, for example, when a consequence of extending one's arm from a car window is that
A collateral action is what is described by a collateral action description. The phrase "collateral action" is more useful for those action theorists who maintain that there is a different action described for various members of a set of collateral descriptions. The class of relata of our asymmetrical, irreflexive, transitive relation, R, will be collateral actions.

Collateral actions are contemporaneous. That is, the values of R will not be temporal. "Is temporally prior," "is before," "is after," etc., will not be candidates for R. There will be no temporal hierarchies in our catalog.

Whether or not collateral action descriptions describe one action or a set of actions is an issue which will be discussed in Chapters III and IV. We have already mentioned that some philosophers want to claim that collateral action descriptions which allegedly refer to numerically diverse collateral actions are really numerically diverse descriptions of one and the same action. Let us call the latter, the identity thesis for collateral actions or the identity thesis for short. There are recurrent issues in all identity

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a turn signal is given, when a consequence of delivering posters is being a political campaigner, or when a consequence of moving Q to Kv is that one's opponent is checkmated. In none of these three examples is Y caused by X, because in each case there are no events constitutive of Y that are not also constitutive of X." "Choosing, Deciding, and Doing" in the Encyclopedia of Philosophy (Macmillan, 1967), Vol. 2, p. 102.
disputes. For instance, does Leibniz' Law hold for the context in question? How are we to account for the diverse predicates on both sides of the '='? Are these double aspects of one and the same thing?

Other issues surround the nature of intentional action. Is there a mental act of intending prior to, the set of collateral actions (or prior to the one action described by a collateral action description)? Or is the alleged intentional action really a collateral description using the language of intention? In the latter case there is no causal relationship. There are not two distinct causal relata but merely various ways to describe one and the same action.

For nearly all the R's which I catalog, "is required for" or "is dependent upon" will be helpful locutions in English. For a taxonomy of various values of R we will merely add to the locution. (e.g., epistemic dependence, explanatory dependence, identifiability dependence)

R's which involve intensional contexts, I will call intensional relations. Where collateral action descriptions

22William Lycan has shown that a great many propositional contexts (which have been used in attempts to undermine the identity theory of mind) are contexts for which Leibniz' Law does not hold. See his "On 'Intentionality' and the Psychological," American Philosophical Quarterly, Vol. 6 (1969). See especially "Materialism and Leibniz' Law," Monist Vol. 56, No. 2, April 1972. I will be using the same sort of arguments against Goldman regarding propositional contexts. Goldman attempts to undermine the identity thesis regarding alleged numerically diverse collateral acts.
are involved, one cannot argue from the asymmetric and irreflexive status of R to the nonidentity of items of behavior if R is an intensional relation. Let me explain further. I believe the following law holds:

\[ L_1 \text{ - Nec:} \]
\[ (x)(y) \left[ (x=y) \supset (R)((Ryx \equiv Ryx) \cdot (Rxx \equiv Ryy)) \right] \]

But, like Leibniz' Law, where the monadic predicate, \( \emptyset \) in

\[ L_2 \text{ - Nec:} \]
\[ (x)(y) \left[ (x=y) \supset (\emptyset)(\emptyset x \equiv \emptyset y) \right] \]

is limited to nonintensional propositional contexts, \(^{23}\) R is limited to nonintensional relations. Let us suppose a philosopher tries to prove that the collateral action, John's moving his queen to king-knight seven, is required to explain how John's checkmating his opponent was performed but not vice versa. (R here is: "______ ______ ______" is required to explain how __________ has been performed but not vice versa.") Can we claim that there are numerically diverse collateral actions on these grounds (on the grounds that the relation is asymmetrical and irreflexive)? I do not think that this is a legitimate inference.

An intensional relation here can be construed as a relation among intensional objects (e.g., senses of expressions) or among quoted expressions. In any case, an asymmetrical and irreflexive relation among intensional objects or quoted expressions does not warrant the claim that there are numerically diverse extensions or referents. From the claim that John's extending his arm out the window is required to explain John's signalling but not vice versa, one cannot, assuming this to be an intensional relation, deduce a numerical diversity of behavioral items. One can deduce from such asymmetry and irreflexivity a numerical diversity of intensions or of quoted expressions, depending on one's analysis of intensional contexts. In Section One of Chapter IV, I show how Anscombe's analysis could be construed as involving a relation among the uses of quoted expressions. Here one gives up talk of actions per se for talk of action descriptions or actions under certain descriptions.

It may turn out that what I have called "intensional relations," the reader would not want to call relations at all. My justification for the use of "relation" is that I want to underscore the fact that not all alleged intensional contexts appear to be relational; and the contexts which will be relevant for our purposes appear to be dyadic relations. "...is required to explain ____," "...is the cause of ____," "...is done by ____" and "...is explanatorily dependent upon ____" all have the appearance of
being expressions of dyadic relations which could take descriptions of behavior as substituents.

I am taking issue here with Alvin I. Goldman who claims that the fact that the relationship in question is asymmetric and irreflexive has important consequences for the identity thesis.

If A and A' are identical, there can be no asymmetric or irreflexive relation which one bears to the other. If A and A' are genuinely identical, then if a relation R holds of the ordered pair \((A, A')\) it must also hold of the ordered pair \((A', A)\). And if R holds for the ordered pair \((A, A')\), it must also hold of the ordered pairs \((A, A)\) and \((A', A')\). But we have seen that there is a relation that holds between the ordered pair \((\text{John's moving his queen to king-knight-seven, John's checkmating his opponent})\) which does not hold of the ordered pair \((\text{John's checkmating his opponent, John's moving his queen to king-knight-seven})\); nor does it hold of the ordered pair \((\text{John's moving his queen to king-knight-seven, John's moving his queen to king-knight-seven})\) or of the ordered pair \((\text{John's checkmating his opponent, John's checkmating his opponent})\).\textsuperscript{24}

The relation which Goldman is talking about is:

\[ R: \text{ We can explain how } \underline{\text{______________}} \text{ was performed by citing } \underline{\text{______________}} \text{ but not vice versa.} \]

Goldman's underlying and question-begging assumption in the above paragraph is that the context in question is nonintensional. The claim that a relation is irreflexive, \underline{\text{__________}}

\textsuperscript{24}Goldman, p. 5.
and that this has consequences for the identity thesis, is to assume what one is trying to prove: viz., that the behavioral descriptions in question refer to numerically diverse bits of behavior.  

Section Three - Basicness in Ontology

I am interested in presenting a catalog of basicness where \( R \) is an intensional or nonintensional relation such that bodily movements (or the description of such in an intensional context) can be said to be basic among collateral actions (or among collateral descriptions used in intensional contexts).

Now one of the things that ontologists do is grade things in hierarchies of ontological priority, dependence or requiredness. To do this an ontologist would, it seems, not find much value in intensional relations. One of the requirements for ontological basicness of class \( X \) with respect to class \( Y \) is that a particular member of \( X \) not be identical to a particular member of \( Y \). And both \( X \) and \( Y \)

\(^{25}\text{Goldman is aware of the problem of intensional contexts but claims that in order to make a case for the intensionality of a propositional context one must have an antecedent paradigmatic case of identity for which Leibniz' Law does not hold for that context. In this case where the identity of collateral actions is in question one cannot suppose them identical without begging the question. See p. 7. Although I support Goldman on this issue (see Chapter IV,}
classes must have at least one member. Furthermore the ontologist wants to make claims about the world, not about language and ways of conceiving of items in the world. But we cannot infer these aspects of hard core ontological priority from the asymmetry and irreflexivity of intensional relations. If one is going to use an intensional relation, R, to specify what is ontologically basic, one must have made prior commitments to the existence and nonidentity of the relata.

Now an interesting question can be asked about Strawson's R: (X's are dependent for their identification and reidentification upon Y's but not vice versa.) Is this an intensional relation? I think that it is. If this is the case, then we may well ask, what is the relationship between identifiability dependence and ontological priority? Intensional R's have been used to define ontological priority in the history of philosophy. But the relations are used only when prior ontic commitment has been made with regard to the relata. One family of relations so used has been

Section Four), the assumption that the asymmetry and irreflexivity of the relation in question has consequences for the identity thesis, is itself question-begging.

various notions of cognitive basicness where 'basic' is given a sense within the framework of various psychologies of perception. Here simple impressions or simple ideas could be said to be ontologically prior. Let R be: (Complex cognition, C, is dependent upon simple cognition, S, but not vice versa.)

There are at least two very general questions that ontologists ask: 1) What is in the running for some ontological status or other? (What exists? What terms are referential?) and 2) Given the entities in the running, which type is basic? These questions are not always separated; in fact the second has been used at times to answer the first.

Tests for determining what exists sometimes involve the determination of what is basic in some sense. Of course, prior to this we can use purely grammatical criteria. We can say that if a person knows English he will not view 'sake' as referential in 'John did it for the sake of Mary.' Nor will he view 'a' as referential in 'John is angry.' Nor will he view 'or' as referential in 'John loves Mary or he does not.' In categories of traditional grammar, "to be is to be in the range of reference of a pronoun."27

Sometimes an ontologist will not confer referentially on certain expressions because they are not referential to

basic things. Yet these expressions in question appear to be candidates for referentiality given the grammatical criteria. We may ask, say, about voice idioms, whether or not they are referential. D. C. Dennett claims that voice idioms are nonreferential in that "the explanation of vocal phenomena may contain no reference to voices." He asks, "Can the explanation of mental phenomena similarly avoid reference to minds, thoughts, pains?"

From the vantage point of our base camp in the midst of existing things and referential terms, 'voice' must forever be nonreferential; only in this way can the alternative of identity or nonidentity be denied.

The very notion of a base camp reflects how notions of basicness are related to questions of referentiality. Voice idioms are not referential in that they could not be used to make well-formed sentences of the form: "(voice idiom) are (or are not) identical to (vocal cords, larynx, etc.)." In my reconstruction of Dennett the physicalistic idiom is explanatorily basic. The base camp is defined with the help of the following R. (Voice idioms require the physicalistic idiom in explanatory contexts but not vice versa.) The base camp is what is explanatorily basic.

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29 Ibid., p. 17.
30 Ibid., p. 15.
We entertained the proposal to admit voices into our ontology because under some circumstances 'there is a voice...' rings true in the ear, but there are better reasons for denying them. If the anatomist or physiologist or acoustician were to be concerned because among all the things encompassed by his theories there still were no voices; if he were to suppose this meant he had left something out, something perhaps even inaccessible to science, he would have been confused by our admitting voices in our ontology. 31

An ontologist may use an ontological recipe as a criterion for determining the referentiality of expressions. He specifies the basic ingredients and the legitimate mixing rules (r) and confers existence upon what is generated by (r). (r) may turn out, in some cases, to be the R implicit in the notion of basicness. The use of some notion of cognitive basicness in an inductive or recursive determination of what expressions are referential is, I think, a dominant aspect of empiricism. Hume, for instance, had a notion of cognitive basicness which picked out more or less vivid impressions as basic. He then spends much of his Treatise of Human Nature determining what expressions are referential given their genetic relations to what is basic. For Hume the ideas of necessity, of power or causal efficacy are not referential; that is, there is no mind-independent aspect of

31 Ibid., p. 11.
the world to which such terms are applicable.

There is, then, nothing new either dis-cover'd or produc'd in any objects by their constant conjunction, and by the uninterrupted resemblance of their relations of succession and contiguity. But 'tis from this resemblance, that the ideas of necessity, of power, and of efficacy, are derived. These ideas, therefore represent not anything, that does or can belong to objects which are constantly conjoined.32

The recipe-type criterion for referentiality is used by Alvin I. Goldman. Goldman analyses actions as events in which an agent exemplifies an act property (e.g., the act property of moving the arm). "A particular act...consists in the exemplifying of an act-property by an agent at a particular time."33 Goldman calls such particular acts: "act-tokens."

Act-tokens in general are either basic act tokens or things related in specific ways to act-tokens. The most important of these relations can be illustrated by our chess example. John's moving his hand in a basic act-token, and each of the other acts--John's frightening away a fly, John's moving his queen to king-knight-seven, John's checkmating his opponent, etc.--is generated or produced by this basic act token.34

Elsewhere Goldman maintains that he will "demarcate a

33 Goldman, p. 10.
34 Ibid., p. 19.
certain class of act-tokens and a certain set of relations, and then...[will] say that anything which bears an appropriate combination of these relations to a member of the originally demarcated class of act-tokens is itself an act-token."\(^{35}\)

Now the point of this section is to show that notions of basicness can be used not only to define ontological priority but also to place restrictions on the use of "exist." The notion of a basic action may be used as a means of talking about ontological priority among collateral actions or, on the other hand, a means of putting restrictions upon what collateral actions or behavioral items may be said to exist.

Section Four - Basicness and the Metaphysics of Behavior

In this dissertation an attempt will be made to show ways in which the following question can be answered: "What is the relationship of motions to actions?" One of the ways in which one can attempt to answer this question is to describe various ways in which motions are basic among a set of collateral actions. But in giving such an answer one seems to be presupposing that actions and motions are numerically diverse items of peripheral behavior. One who holds

\(^{35}\)Ibid., p. 17.
the identity thesis (to be defined in greater detail in Chapter II) would reject such a presupposition.

An attempt will be made in the next chapter to develop positions in the metaphysics of behavior which are parallel to the mind/body metaphysical positions; issues surrounding the identity thesis will be seen to parallel issues in the mind/body identity thesis. The notion of a basic action will be shown to have a role in only a few of the theories developed. The wider program of this dissertation is (a) to present positions in the metaphysics of behavior and (b) to show how the mind/body problem can itself be viewed as a problem in the metaphysics of behavior. The former is accomplished in Chapters II through VII, the latter, in Chapter VIII. Basic actions will be discussed only where such a discussion is relevant to the wider program.
CHAPTER II

THE METAPHYSICS OF BEHAVIOR

Introduction

In this chapter I shall present certain problems that a theory of action should confront and resolve. I will then show how the present inquiry into the metaphysics of behavior fits into the larger, more over-arching inquiry of action theory.

Section One - Problem Areas in a Theory of Action

First, a theory of action must provide an answer to questions concerning the ontological status of actions. What constitutes an action? For example, are actions events or universals?

Second, a theory of action must provide answers to questions concerning the numerical diversity of actions. When are we speaking of two actions rather than one? Are there as many actions as there are collateral behavioral descriptions?
Third, a theory of action must present an answer to the problem of the nature of the explanation of actions. Can actions be causally explained in the same way that other phenomena are explained? For example, are physiological phenomena explained in a radically different way from the way actions are explained?

The fourth problem area is the epistemology of actions. Is knowledge of a person's actions based on knowledge of his bodily movements? Can we have direct knowledge of actions? Do they have the same observational status as bodily movements?

The fifth problem area involves the determination of the relation of actions such as signalling to the bodily movements of an agent who performs the action. In this chapter I will formulate possible positions in the solution of the fifth problem. It is this problem area which will concern us throughout this dissertation; and our venture into other problem areas will be only in order to show their bearing on the fifth problem.

It is impossible to answer some of these questions without answering others. For instance, one cannot answer questions about the numerical diversity of actions without a commitment to the structure of actions. And questions concerning the nature of action explanation cannot be separated from questions concerning the numerical diversity of actions. If, for instance, one maintains that a signalling
at t is one and the same thing as a particular body movement at t, but denies that an adequate causal explanation of the latter is an adequate causal explanation of the former, the action theorist seems to be opting for the view that causal contexts are intensional or that there are two very different kinds of explanation. In the latter case appropriate empirical generalizations used in explaining an action will depend on the descriptions used to refer to the action.

Section Two - The Action/Body-Movement Distinction

There are some distinctions that it takes very little sophistication to discern in ordinary parlance. Children learn at a very early age to talk about actions such as signalling, building, smacking, and crying, on the one hand; and they learn to talk about arms raising, mouths opening, hands grasping, and legs moving, on the other hand.

In the early days of behaviorism, one of the key concerns in the formulation of behaviorism was the problem of delimiting a set of predicates that would constitute the language of behavior. J. B. Watson attempted to restrict the language of stimulus and response to predicates which were physiological and kinematic in character. The language of behavior involved talk of muscle twitches and leg jerkings rather than talk of running a maze, helping Mary, and writing a letter. Behavior described in the latter terms
was called a molar phenomenon by E. C. Tolman. Behavior described in the former terms, he called molecular. ¹

Another distinction is that of central behavior and peripheral behavior. Examples of central behavior are gland secretions, stomach contractions, the movement of laryngeal, chest and throat muscles, and neural firings. Central behavior can itself be divided into the behavior within the framework of the central nervous system and that behavior which is not. Watson's behaviorism can be characterized as an attempt to restrict the language of behavioral analysis to molecular and central behavior. For example, the behavior constituting thinking involves movements of the laryngeal and chest muscles. ² Here the trend is away from peripheral behavior, molar and molecular. Rarely do Watson's behavioral analyses of mental items involve molar peripheral behavior.

Section Three - The Molar/Molecular Behavior Gap

Philosophical questions concerning what kinds of things there are, are usually raised after a discernment of what


appear to be different expression classes. That is, there is a discernment of expression categories such as phenomenal and physical, mental and physical, normative and natural; and these questions are raised: Do these expressions apply to different kinds of things? Do the expressions refer to one kind of thing described in very different ways? Do the terms (in one category) refer to anything? If they do not refer, what role do they play in communication?

Epistemological questions can also be raised with the discernment of major expression categories. Are propositions containing one category of referring expressions typically inferred from propositions containing another category of referring expressions? Are propositions about things on one side of the category gap more certain, in some sense, than propositions about things on the other side of the category gap? Scepticism has, for the most part, arisen at key category gaps. How could we have justified true beliefs about the physical realm on the grounds of the phenomenal; about the ethical on the grounds of the natural; and about the mental on the grounds of the behavioral?

Philosophical literature since the turn of the century has been ensconced in problems surrounding the three category gaps above, but until very recently there has been little literature surrounding the molar/molecular behavior gap.

Behaviorists such as E. C. Tolman dealt with some of
the consequences of the distinction in his *Purposive Behavior in Animals and Men*, but from a philosophical point of view much more must be done in a wider program. I wish to show in this chapter the philosophical issues and programs of analysis that can be raised if the programs of analysis applied to other expression gaps are applied *mutatis mutandis* to the molar/molecular behavioral distinction.

Section Four - The Problem of Finding the Observational Language

One of the main arguments for behaviorism has been the epistemological argument or variations thereof. Both the methodological and logical behaviorists have given an observational status to the language of behavior. The sceptic who questions the justification of the application of mental terms to other persons accepts it that we can observe behavior.

But now let us take the molar/molecular distinction seriously. Within the notion of overt or peripheral behavior there is a category gap which the alert sceptic can turn into an epistemological gap. Here the following question can be raised: How is it possible to justify our knowledge of another's molar overt behavior on the grounds of that person's molecular overt behavior? How is it possible to make judgments such as "The rat is running the maze" from
propositions such as "The **legs** of the rat are moving rapidly," "The rat's **head** is lowered," "The **shoulder** and **rump muscles** of the rat are contracting," etc. It would seem that any conjunction of molecular overt behavior about the position and musculature of the rat's body parts would be compatible with a variety of molar descriptions. Overt behavioral judgments such as "The child is giggling" do not seem to be entailed by overt behavioral judgments about the child's mouth, the facial contour, the movements of the child's chest, and the sounds coming from the child's mouth. Before we can resolve the problem of other minds, I want to suggest that we must solve the problem of other gigglings, runnings, climbings, signalings, kickings, hoppings, smileings, grasplings and yawnings. It seems here that as soon as we recognize one epistemological gap we are faced with other gaps which seem to ramify indefinitely in much the same way as the distance between Zeno's tortoise and Achilles.

This problem must be faced even by the analogist (on the other minds problem). For he claims knowledge concerning correlations between his mental states and his own overt behavior. But within overt behavior he seems to be crossing the epistemological gap between judgments about his facial muscles contracting, his mouth's movements, his vocal chord's vibrating on the one hand, and his crying out on the other hand.

The search for the observation language cannot, if this
analysis is correct, stop with the language of overt behavior because within what is typically called overt behavior one could raise the issue of epistemological gaps. One can raise epistemological issues wherever there are such categorical gaps. It is not altogether clear that judgments about John's giggling have the same observational status as claims about the movements of his abdominal region, his changing facial expression and the tonal quality of his vocalizations; and one could descend one step further here. Judgments about a facial expression may not have the same observational status as judgments about the mouth's position, the set of the jaw, jaw muscle contraction and the like. Descending even one step further we could ask whether or not judgments about John's jaw are made on the observational basis of skin ripples, musculature contours and the like.

The central question here is "What is the observation language?" To answer, "The language of overt behavior," is to overlook the problem. It is an interesting fact about behavioral judgments that there are several levels of neutrality of descriptive commitment within which behavior is characterized and identified; and it has been into such gaps as these that the sceptic has traditionally pounded his epistemological wedge.
Section Five - The Problem of Behavioral Causal Correlata

There are several theories of mind that require behavior as a causal correlatum. As we have seen, various attempts to resolve the problem of other minds must also resolve the problem of other (and our own) gigglings, grimacings and graspings. But, looking beyond the problem of other minds, I would like to show how important a metaphysics of behavior is for theories of mind which require a piece of behavior as a causal correlatum.

In D. M. Armstrong's materialism mentalistic judgments are analysable in terms of inner states apt for the causing of behavior. There is a causal correlation between a physiological state and an item of behavior. Armstrong's concept of a "mental state is the concept of a cause whose complexity mirrors the complexity of the behavior it is apt for bringing about. If it were discovered that complex behavior did not spring from equally complex causes, then this would amount to the discovery that this complexity of behavior was not an expression of mind. It would simply be an accidental complexity, like twigs falling to the ground and forming an intricate and meaningful pattern." 3

Now if one were ever to be able to discover causal

correlations between a complex behavior and a complex physiological process, the complexity of the behavior cannot be logically tied to the complexity of the cause. We must be able to delimit a behavior as a correlatum, an individual, first and be able to discover its complexity on grounds other than the complexity of the cause. One must be able to set aside a bit of behavior as being complex and another bit of behavior as being not so complex without reference to a complex causal antecedent to the peripheral behavior. Unfortunately Armstrong does not provide the reader with a theory of behavioral complexity. That is, he does not indicate how one behavior can be more or less complex than another without reference to complex causes. He makes a distinction between what he calls "physical behavior" and "behavior proper." This distinction is none other than that between molecular behavior and molar behavior.\footnote{Ibid., pp. 84 and 133. These distinctions will be seen to be too rough for our purposes. Behavior proper is, for Armstrong, purposive action or intentional action as opposed to a mere physical occurrence. But physical action descriptions and molecular behavior descriptions can be further divided. For instance, a reflexive knee jerk, although nonintentional behavior, may be described in more purely kinematical and body topographical terms. (More on this in Section Six)}
in such a way as to facilitate the bringing about of a cer-
tain situation."

Now there are three problems here. First we are owed
a cause-independent notion of complex behavior if the com-
plexity of behavior is to be causally correlated with the
complexity of the cause. Second, although there are various
complexities of behavior, only one level of complexity pro-
vides the behavioral correlates. At what level of complex-
ity are the behavioral correlates to be identified? Finally
how are we to individuate the behavioral correlata? That
is, when are there two behavioral correlata rather than one?

Another way of talking about various complexities of
behavior is to talk about various levels of behavioral char-
acterization. The notion of a level of behavior is widely
used but little explicated. The functionalist making a
case for explanation by simulation will want to make sense
of claims such as, "The behavioral repertoire of the machine
is identical to that of the organism." He might want to
qualify the identity in terms of behavioral levels. At one
descriptive level of behavior, the machine and the organism
have the same behavioral repertoire although the organism
may and the machine may not have other levels of behavior

5Ibid., p. 170.

6I have the following functionalist in mind here:
Jerry A. Fodor, Psychological Explanation (New York:
in common. In Jerry Fodor's analysis,

a claim of weak equivalence between an organism and a machine entails a claim that the repertoire of the machine includes all the forms of behavior that are available to the organism. The truth of such a claim therefore depends critically upon the choice of a theoretical vocabulary in which the relevant behaviors are to be described. If the production of a sentence, for example, is represented as the production of a sequence of sounds, the demand for weak equivalence between a man and a sentence-producing machine is a quite different requirement from the one we get when the sentence is represented as the production of a sequence of words or of phrases as well as a sequence of sounds.

Fodor attempts to get around the problem of the specification of levels of description by accepting the convention that

we individuate forms of behavior by reference not solely to the observable gestures output by an organism but also to the sequence of mental operations that underlie those gestures. That is, we count two overt gestures as instances of different forms of behavior whenever they are the consequences of different mental operations.

But there are two very serious problems with this proposal. First, it relies on the notion of overt gestures or observable gestures. If what I have said in Section Four is true, then we are still owed an analysis of the levels of

7Ibid., p. 139.
8Ibid., p. 140.
behavior in order to specify the observation language level. Secondly, Fodor is committed to the claim that certain high level behavior such as signing a deed is not a bit of behavior that would interest a psychologist. Yet high level behavior such as uttering a sentence (as opposed to producing a string of sounds) is within the province of scientific explanation. There is such a similarity to what makes the behavior high level behavior that it would seem that there ought to be a similarity of treatment in the two cases. Legal conventions are involved in signing a deed rather than merely moving the hand. And grammatical conventions are involved in uttering a sentence rather than a string of sounds. We are owed a criterion demarcating high level behavior ascribed by the complexity of the cause and high level behavior ascribed on the basis of legal (and other normative) conventions. It is settling this demarcation dispute that is crucial for a resolution of the differences between Fodor and philosophers such as A. I. Melden and R. S. Peters.

Third, if there is the possibility of discerning a causal relation between a bit of complex behavior qua complex behavior and a complex cause, there must be, in principle, a cause-independent way of describing and picking out the complex behavior as complex. If, for example, a certain

\[\text{\textsuperscript{9}Ibid., p. 47.}\]

\[\text{\textsuperscript{10}Ibid., p. 138.}\]
neural or functional state is causally correlated with the utterance of a string of sounds rather than the utterance of a meaningful sentence, there must be a way of discerning one piece of peripheral behavior from another without reference to the variations of the causal antecedents. There must be cause-independent ways of individuating the utterance of a string of sounds from the utterance of a meaningful sentence. One must be able in principle to characterize different complexities of output behavior solely by reference to output behavior or give up the claim that causal complexities are causally correlated with behavioral complexities.

Fodor can, I think make his position more plausible only by defending a theory of behavior that will be presented in this chapter. But what he holds implicitly should be made explicit; one reason that theories in the metaphysics of behavior are not explicitly stated is that the problems surrounding the molecular/molar behavior distinction have not come into their own as metaphysical problems; and there is no overall taxonomy for classifying theories of behavior.

Fodor's functionalism and Armstrong's materialism (and in fact any theory of mind for which an item or set of items is causally correlated with a behavioral item) must answer the following questions: How is the behavioral correlatum individuated? If there are levels of behavioral complexity, what level provides the causal correlata? Does the
complexity of the behavioral correlatum vary with the complexity of the causes? When is it correct to say that the behavior of one thing is qualitatively the same as the behavior of another thing?

Section Six - Theories About the Relation of Molecular Behavior to Molar Behavior

In Section Two I suggested that there were some standard metaphysical moves which can be made by the metaphysician who is confronted with disparate expression classes. Questions arise as to whether the expressions are referential or whether at least one of the classes of expressions have nonreferential uses. If both classes of expressions are referential, how are the referents related? Such questions arise regarding expression classes on each side of the following gaps: the physical and the phenomenal, the mental and the physical, and the moral and the natural. It is because of the possibility of applying recurrent patterns of metaphysical analysis at each gap that I can offer the following taxonomy of theories on the metaphysics of the molecular/molar gap. I will be constructing theories which are parallel to mind/body theories. What will be changed in the molecular/molar theories are the expression classes. Both classes will be expressions which are uncontestedly behavioral. On the one hand, one can classify behavioral
descriptions which are under the rubric of bodily movement
descriptions. They are descriptions of behavior containing
terms about parts of the body and the characteristics of
their surfaces. The descriptions may involve the spatial/
temporal relations of parts of the body with surrounding
physical objects. They are body-topographical and body-
kinematic predicates. I will call all of these bits of lan-
guage 'K-expressions' or 'K-terms.' Examples of K-expres-
sions are "the movement of my hand," "the lowering of my
hand," "standing motionless," "moving the fingers around the
handle," and "lowering the arm."

Imagine yourself as a witness at a murder trial. What
is in question is the following: Did Tony Refuso, notorious
gang leader and bad guy, really signal for the commencement
of the execution of the shopkeeper or was he merely waving
his hand as he drove past in the car? You are asked to give
a description of the action in the most neutral terms pos-
sible. A description of the act which would be neutral in
terms of Tony's guilt or innocence would be something like
the following: "Tony was waving his hand in the window."
This is more neutral than the description, "signalling for
the commencement of an execution." But the attorney for the
defense is not satisfied. Tony claims that he was only wip-
ing his car window. He was not waving at all. You are now
asked to give an even more neutral description—a descrip-
tion which is neutral to the question, "Was Tony waving, or
wiping his window?" A more neutral description would in­
volve a description of the position of Tony's hand in the
window, and the spatial characterization of the movement
made by Tony's hand.

When one is describing behavior in the most neutral
terms, one is presenting K-descriptions, mere spatial char­
acterizations of the body and parts of the body as well as
topographical configurations of the body and its parts.
With this notion of K-descriptions, descriptions such as
"drumming the fingers on the desk" would not be K-descrip­
tions; "drumming" is not as neutral as it could be. Drum­
mimg fingers can itself be "neutralized" to descriptions of
the topographical configurations of fingers. K-descriptions
may involve reference to other physical items to which the
body or its parts are related. In the illustration above,
the object was a car window. A more detailed account, under
the rubric of spatial and topographical characterizations,
could possibly involve the use of some spatial co-ordinate
system.

The ascription of K-descriptions to persons is neutral
with respect to whether or not an intentional action is be­
ing performed. K-descriptions are descriptions of the mere
peripheral behavior of persons. When "boarding the bus" is
applied to Bob, we can describe the movements of Bob's body.
K-descriptions are not only neutral with respect to the
question of whether the action performed was intentional,
(Bob may have boarded the bus unintentionally.), they are neutral with respect to what action was undergone (Bob's boarding the bus).

The metaphysical problems surrounding the expression gap between bodily movements and actions are two in kind. First, if K-terms refer, what do they refer to? Are they events or universals? Second, assuming that K-expressions and action expressions are referential, how are the referents, the items of behavior, related? The first problem is about the mere nature of the referents of behavioral descriptions, and the second has to do with the relation of the referents. The latter question will be the primary concern throughout this dissertation. The concern about the nature of the referents will be touched upon only as it relates to theories about the relations of the referents.

There are several ways that collateral action descriptions which are not K-descriptions can be said to be more descriptive than K-descriptions. That is, we can, for the most part, make more inferences from non K-descriptions (which are collateral action descriptions) than we can make from mere K-descriptions. Contrast, for instance, "my arm's rising" with "my raising my arm." The latter description is usually used when one wants to imply that an action was performed by a purposive agent. Contrast "my raising my arm" with "my signalling" or "my signalling for a taxi." The latter descriptions seem to involve not only agency
(something was done by me), but also an action done by me in the framework of certain conventions. In some sets of collateral action descriptions one may find a description which is neither a K-description nor is it a description, which when ascribed, would involve or imply agency or convention. For instance, contrast a kinematic description of John's yawning with descriptions such as "John's yawning." Also contrast the K-descriptions which might be used to give a kinematic account of John's pain behavior, and the actual ascription of "pain behavior" to John.

We can categorize collateral act descriptions into these four categories: (a) descriptions which, when used to describe, imply agency (however analyzed); (b) descriptions which, when used to describe, imply a framework of conventions (however analyzed); (c) non K-descriptions which, when used to describe, neither imply agency performance within the framework of conventions; and (d) K-descriptions. These are not meant to be the only categories of collateral action descriptions. It is a matter of controversy whether or not mentalistic descriptions and mental act descriptions are descriptions of peripheral behavior. And these categories are not meant to be exclusive categories. Descriptions in the (b)-category may also be in the (a)-category.

An example of a description in the (a)-category is "my raising my arm;" for the (b)-category, an example is "my signalling;" (c)-category examples could include "my
stumbling," "breaking a stick," "the jerking of my leg," "flipping the switch," "crawling in the mud" and "the biting of his lip."

This whole bag of non K-descriptions will be called "A-descriptions." The bundle of metaphysical problems surrounding the gap between A-descriptions and K-descriptions will be called "the K/A problem." The K/A problem can itself be divided into other metaphysical problem areas, depending on the categories of A-descriptions under consideration. Now the reason I have lumped all of the above description categories under the rubric, "A-descriptions" is merely to simplify the task of showing that there are putative solutions to problems in the metaphysics of behavior which parallel putative solutions to the mind/body problem. The reader should keep the following points in mind. First, what I want to do is to show that regardless of the particular subclass of A-descriptions which one considers, the metaphysical problems which arise at that particular expression gap may be solved in ways parallel to solutions of the mind/body problem. I am not assuming that the metaphysical problems will be solved in the same way for every subclass of A-descriptions.

Second, I am interested in only those metaphysical problems which arise when K-descriptions are involved. But parallel problems and solutions may arise where the expression classes in question are both subclasses of
A-descriptions.

Third, it should be noted that I am not overlooking the fact that it might be necessary to solve problems arising at one expression gap prior to the solution of metaphysical problems arising at other expression gaps. One may believe, for instance, that solutions must be forthcoming in the metaphysical problems arising at the (my raising my arm/my signalling)-gap and the (my arm's rising/my raising my arm)-gap before one can reach a solution at the (my arm's rising/my signalling)-gap.

I am now ready to present theories which are putative solutions to the K/A problem. It should be remembered that since there are various subclasses of A-descriptions or A-terms the formulations below can be viewed as schemata which can be used for any subclass of A-terms. If, for instance, we are answering the question, "How are what is described by K-terms related to what is described by descriptions implying agency?", the A-terms in the schemata below should be understood to be a special subclass of all possible A-terms.

In the theories below, the term "item" will be noncommittal as to whether the item is a process, event, or universal. I will now merely enumerate the theories. I have made the theories parallel to mind/body theories because, as I have suggested earlier, there are parallel patterns of metaphysical analysis at every interesting predicate gap. To mark one parallel with the term "materialism," I have
coined the term, "kinematicism."

A. K/A Reductive Kinematicism (Identity Thesis)
   2. Every A-item is identical with some K-item but not vice versa.

B. K/A Weak Eliminative Kinematicism\(^{11}\) (WEK)
   1. K-terms denote K-items and A-terms also denote K-items since there are no A-items to denote.

C. K/A Strong Eliminative Kinematicism (SEK)
   1. K-terms refer to K-items and A-terms fail to refer to anything since there are no A-items.
   2. A-terms can be eliminated from the language of ontology since they have no referential role.

   The language of ontology is a class of expressions which when put into the sentence frame "_______ exists," will make a true sentence. (I am not suggesting here that "existence" is a predicate.)

   For the more radical variant of the (SEK) position add (3).

   3. A-terms can be eliminated from our present language since without a referential function A-terms

\(^{11}\)The categories of strong and weak eliminative materialism are presented in "What is Eliminative Materialism?" by William G. Lycan and George S. Pappas, Australasian Journal of Philosophy Vol. 50, August, 1972.
have no function.

For more conservative variants of the (SEK) position one could add (3').

3'. A-terms have an uneliminable linguistic function although that function is not a referential one.

Support for 3' may come via a theory of the explanation of actions. A theorist might want to claim that A-terms are part of a nonmechanistic system of explanation. Support for 3' may come via an ascriptivist position. A-terms are ascribed by speakers to draw the hearer's attention to a context of rules, norms, and conventions within which K-items are interpreted.

It should be noted that conservative SEKists attempt to show that apparently disparate ontological categories really reflect a dualism of linguistic functions only. The K/A problem, if billed as a problem of how two kinds of referents relate, is, according to the SEKist, a pseudo-problem. For the SEKist, the K/A problem becomes a problem only when a dualism or multiplicity of linguistic functions is turned into a distinction en re. Where there are not two referents, there is no problem about how the two referents relate.

D. K/A Attribute Theories

In all K/A attribute theories either A-terms refer to attributes (universals or properties), or they refer to a
bit of behavior just in case it has a certain kind of attribute.

a) K/A Emergent Epiphenomenalism

1. K-terms denote K-items and A-terms denote either (a) K-items if and only if they have emergent properties or (b) just the emergent properties of K-items.

2. Emergent properties of K-items are unpredictable by-products since there are no empirical correlations between the by-product properties and other items.

b) K/A Functionalism

1. K-terms refer to K-items and either A-terms refer to role universals\(^\text{12}\) (of a special sort) which are realized by K-items or A-terms refer to K-items if and only if they realize role universals (of a special sort).

In the attribute theories below both K-terms and A-terms will refer to attributes. They all involve the following claim:

(P) K-terms refer to K-properties and A-terms refer to A-properties; and no K-property is identical to any A-property.

c) K/A Attribute Theory with a Neutral Subject of

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\text{\textsuperscript{12}The phrase, "role universal" will be explicated in detail in Chapter VII.}\)
Attribution

1. (P)

2. Both K-properties and A-properties are exemplified by K and A neutral items (e.g. persons, bits of behavior).

3. An item is K and A neutral if and only if either (neither K-properties nor A-properties are essential) or (K-properties and A-properties are jointly essential).

d) K/A Attribute Theory with Kinematic Essentialism

1. (P)

2. Both K-properties and A-properties are exemplified by items of which it is true that K-properties are essential and A-properties are not.

e) K/A Attribute Theory with an Instrumentalist Bias

1. (P)

2. The determination of what properties are essential is a matter of linguistic decision usually determined by the interests of the language user.

3. What turns out to be the subject of attribution is dependent upon the collection of properties taken to be essential.¹³

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¹³For this variation in the parallel theory of mind check out Armstrong, op. cit., p. 38.
E. K/A Parallelism

1. K-terms refer to K-items and A-terms refer to A-items.

2. No A-item is identical to any K-item.

3. K-items and A-items bear some ontological dependence relation to each other, but it is not a causal relation.

If the classes of expressions are changed, the theories are changed. These theories are patterns of reference for pairs of expressions. These patterns of metaphysical analysis can be described, in most cases, without committing oneself to the nature of the referent (e.g. event, state, substance, property?). Even within the attribute theories there is much leeway in determining the nature of the subject of attribution.\textsuperscript{14}

Section Seven - The Use of K/A Theories

Now let us run Armstrong's position through our taxonomy. Armstrong locates the residue or difference in raising my arm on purpose and the rising of my arm in the complexity of the antecedent cause. Armstrong appears to be taking a reductive kinematicist position. There is no difference

\textsuperscript{14}I want, also, to allow for a range of possible ontological positions on what an attribute is.
between an A-item and a bit of bodily behavior. The class of K-items to which A-items are identical are those with causal antecedents the complexity of which Armstrong describes along the analogy of a 'homing' rocket. The K/A assumption here is that "we cannot say what the difference is between mere bodily happenings and actions proper, except by saying that actions are physical events that are caused in a certain way."¹⁵ 'Physical' here is being used in the same way as I have used 'kinematic.'

Now one can explain intentional or purposive behavior with reference to mental or mechanical central behavior and yet not identify A-items and K-items. One could be a K/A parallelist, for instance, and claim that A-items are not caused by central behavior but that K-items are caused by central behavior. Alvin Goldman is a K/A parallelist, for instance, who claims that wants and desires cause K-items¹⁶ but that A-items bear a noncausal relation to K-items; and no K-item is identical to any A-item.¹⁷

Jerry Fodor seems to maintain a reductive kinematicism.


¹⁶Alvin I. Goldman treats K-items as basic peripheral behaviors. Causal relations between wants and desires and K-items do not extend to nonbasic peripheral behavioral items.

¹⁷Goldman, op. cit., p. 223.
That is, K-terms denote K-items and A-terms denote A-items; and every A-item is identical to some K-item but not vice versa. The class of K-items which are denotable by A-terms is picked out with reference to a mental causal antecedent of a certain kind. An action is identical to a motion that is performed by an organism in a certain state. If we can give the sufficient causal conditions for being in that state, actions are not beyond the realm of explanation.\textsuperscript{18}

Fodor seems to give up reductive kinematicism, however, for a variant of strong eliminative kinematicism. Some A-terms turn out to have no scientifically interesting referring function. From the scientific point of view, A-terms such as "signing a deed" need not be considered as the description of a behavioral event.

Saying that "signing a deed" is not a description of behavior would then be akin to saying that "spending more than you can afford" is from the physicists point of view, not a description of a physical event.\textsuperscript{19}

The only notion of behavior that a scientist ought to try to explain is what an organism does that could be simulated by a machine. Fodor claims that "signing a deed is not a bit of behavior in any sense of that term that interests a psychologist."\textsuperscript{20} Philosophers with whom Fodor seems

\textsuperscript{18}Fodor, op. cit., p. 45.
\textsuperscript{19}Ibid., p. 47.
\textsuperscript{20}Ibid., p. 47.
to disagree (e.g. R. S. Peters and A. I. Melden) would certainly agree on this latter point.

To say that there are no referents of A-terms which interest the scientist may be a weak way of saying there really are no A-items. This would not, of course, preclude the use of A-terms; but it does preclude their denoting functions.

E. C. Tolman, when run through this taxonomy appears to be a K/A emergent epiphenomenalist. For Tolman, molar behavior, as an emergent phenomenon,

...is more than the sum of its physiological parts. Behavior, as such, is an "emergent" phenomenon that has descriptive and defining properties of its own.

It will be contended by us...that "behavior-acts," though no doubt in complete one-to-one correspondence with underlying molecular facts of physics and physiology, have, as "molar" wholes, certain emergent properties of their own. And it is these, the molar properties of behavior-acts, which are of prime interest to us as psychologists. Further, these molar properties of behavior-acts cannot in the present state of our knowledge, i.e., prior to the working-out of many empirical correlations between behavior and its physiological correlates, be known even inferentially from a mere knowledge of the underlying, molecular, facts of physics and physiology.21

21From E. C. Tolman's first chapter of Purposive Behavior in Animals and Men reprinted in Readings in the Theory of Action, Care and Landesman, eds., (Bloomington: University of Indiana Press, 1968), p. 7. In fairness to Tolman, it should be noted that he claims that, in some metaphysical sense, emergent behavioral phenomena may be reducible to
The way one answers the K/A problem will certainly be of significance in the explication of 'behavior.' And the way one explicates 'behavior' will have consequences in the characterization of any behaviorist position, methodological and otherwise.

Now let 'M' stand for a class of mentalistic descriptions. Let 'C' stand for all central behavior descriptions such as "the movement of the larynx;" "the firing of neuron set, N;" "the increase in blood pressure." Let 'CKA-descriptions' stand for the union of the C, K, and A description classes. Metaphysical behaviorists are those who treat the mind/body problem as a KA/M problem rather than merely as a C/M problem.

Regardless of whether a behaviorist is a methodological, metaphysical, or logical behaviorist, much depends upon the weight given to C, K and A-expressions in the language of behavior. Tolman differentiates his behaviorism from that of Watson on the grounds that the latter is a CK/M behaviorist whereas Tolman is KA/M behaviorist. A-terms denote either (K-items if and only if they have emergent properties) or (the emergent properties themselves); and the proper study of the mind need not involve central behavior. The

physical phenomena. But it should also be noted that if such a reduction is possible in the metaphysics of behavior it is probable that the same move could be made by the mind/body emergent epiphenomenalist.
proper study of the mind is K-behavior and its emergent properties. Once again, the kind of behaviorist one is will be determined, in part, by one's solution to the K/A problem. If, for instance, one is a K/A strong eliminative kinematicist, one will not be a KA/M metaphysical behaviorist. One will be a K/M behaviorist. A-terms do not denote and they can be eliminated from the mind/body inquiry without loss.

Regardless of the description gaps for which one is answering metaphysical questions, there are certain standard arguments that can be raised for and against each pattern of metaphysical analysis. The reductive materialist or the reductive kinematicist may have to face similar accusations; and K/A functionalism may have the same dialectical strengths as C/M functionalism.

The methodology for the diversification of metaphysical positions represented here requires the notion of an expression class. It is in the uncovering of expression classes that Oxford philosophy excels. Ryle's "Categories" contains a good example of a procedure for determining

\[\text{\textsuperscript{22}}\] The appearance of emergent properties is not a cooperative effect of the kinematic properties of K-items. This is the doctrine of real novelty.

\[\text{\textsuperscript{23}}\] I will exploit such possibilities of argumentation in Chapters VII and VIII.

expression classes. It is only in the determining of description classes that purport to denote that metaphysical problems can be "said." Oxford philosophers have attempted to nip certain ontological inquiries in the bud by expanding on the nondenoting functions of certain systematically misleading expressions.

There is controversy over what expressions purport to denote. That controversy cannot be settled by reflecting on the nonreferring functions that an expression may have; expressions can have more than one function.

The trend of Oxford philosophers to categorize classes of expressions by the collective absurdity or lack of it (when placed in certain sentences frames) is a valuable beginning all for metaphysical inquiry.

In the above schema of K/A theories surrounding the logical gap between kinematical and action expressions, the greatest concern has been metaphysical. I have not discussed the epistemological moves that can be made at such gaps, but there are recurrent epistemological positions at description gaps; and the arguments which point out the flaws of an epistemological position at one gap may be applicable to other gaps. (The same can be said for metaphysical positions.) The sceptic at one gap may be led by the same arguments to be a sceptic at other gaps. And a criteriologist at one gap, for example, the physical/
phenomenal gap\textsuperscript{25} may want to take a criteriological point of view at the moral/natural gap or the behavioral/mental gap.

In Section Eight more attention will be given to epistemological positions relative to the movement/action gap. An attempt will be made to show the importance of such issues in the solution of the problem of other minds.

Section Eight - K/A Metaphysics and the Problem of Other Minds

In this section what I want to show is that in order to solve the epistemological problem of other minds, we must first solve the epistemological problem of other behavioral manifestations. This will be a continuation of the earlier discussion in Section Four about the search for the observation language of behavior.

Analysts have proceeded on the assumption that John's pain behavior and my own pain behavior is more epistemically secure and more open to observation than John's pains. We see John's pain behavior and we make inferences to his pain. But it is not at all clear that pain behavior is observable in the way that K and A-items are. Let 'P' stand for descriptions of pain behavior which actually involve the term

\textsuperscript{25}A good example of a criteriological position at the physical/phenomenal gap is sketched by John L. Pollock, "Criteria and our Knowledge of the Material World," Philosophical Review, Vol. 76 (1967), pp. 28-60.
'pain' (e.g. "screwing up his face out of pain," "exhibiting pain"). Let the class A expressions be such descriptions as the following: "the screwing up of the face," "groaning," "moaning while holding his leg," "beating the wall," "flailing the arms."

If the observational language of behavior were the K and A-language and not the P-language, one would be faced with the problem of other peripheral pain exhibitions. This problem is different from the epistemological problem of other pains. Instead of a problem of inference from John's pain behavior to his pains, it is a problem of inference from K and A ascriptions of peripheral behavior to the ascription of pain behavior to John. The epistemological problems surrounding the KA/P gap, where all expressions involved refer to peripheral behavior, are no less problematic than the epistemological problem where we infer the truth of central pain items from peripheral pain manifestations. The problem of other manifest pain behavior is just as problematic as the problem of other pains. Yet, in order for the analogist to claim a correlation between pain behavior and one's own pain, it is presupposed that one's own pain behavior and one's neighbor's are somehow epistemically more secure than ascriptions of pain to one's neighbor.

There are two points that can be made here. First, that epistemological problems can be multiplied at various "levels" of behavioral descriptions where some set appears
to say less or be more neutral than another set. Secondly, and more important, is the point that the way one solves epistemic problems of exhibited behavior is not neutral with regard to positions on the problem of other minds. If, for instance, one solved the KA/P manifest behavior problem by treating 'pain behavior' as a theoretical expression like 'electron,' it is plausible that the ascriptions of pain to John's behavior would be epistemically equivalent to ascriptions of pain to John. That is, both ascriptions would have the same justificatory grounds and John's manifest pain behavior would be no more nor less observable than John's being in pain. Two propositions, \( P_1 \) and \( P_2 \) are epistemologically equivalent if and only if the class of propositions providing the epistemic support for \( P_1 \) is identical to the class providing epistemic support for \( P_2 \). It is logically impossible for two epistemologically equivalent propositions to provide epistemic support for each other if we accept the true assumption that a proposition does not provide epistemic support for itself. The analogist assumes that judgments about John's pain behavior are epistemic supports for judgments about John's pains.

Perhaps my thesis could be called the inscrutability-of-high-leveled-peripheral-behavior thesis. It comes to this: It is plausible that there is a set of behavior characterizing expressions, \( B \), which when used to form behavioral judgments about P's peripheral behavior, form
judgments which are epistemologically equivalent to propositions about P's central behavior described by B expressions. It is plausible that the truth of judgments about John's peripheral behavior being pain behavior is just as inscrutable as the truth of judgments about John's pains.

This position on the inscrutability of peripheral behavior is to be contrasted with the behaviorist who maintains that there is a logical connection between judgments about John's pain behavior and judgments about John's pain. That two propositions are epistemologically equivalent is not a sufficient basis for claiming that there is a logical connection between such propositions. Two propositions can be epistemologically equivalent without being logically equivalent or without being related by a logical connection.

One can reject the inscrutability-of-high-level-behavior thesis without rejecting another important thesis. That thesis is this: The epistemological gap between judgments about John's KA behavior and judgments about John's pain behavior is just as much of a gap as that between judgments about John's pain behavior and judgments about his being in pain; and the epistemological gap between judgments about K-behavior and judgments about A-behavior is just as much of a gap as that between KA behavior and pain behavior.

Traditionally, the behaviorist has attempted to uncover a theoretically neutral language for the description of behavior. The empiricist epistemology, accepted by
behaviorists, requires an observational language.

A central point of empiricist epistemology has been to require the isolation of "inductive risk" at some level of theory construction that is formally distinguishable from the level at which the data statements are articulated, thus bestowing upon the latter a unique privilege of unrevisability and hence a unique type of cognitive certainty....If the point of behaviorism is to be preserved, it must be taken as analytic that whether and how an organism is behaving are questions to be settled by observation, in the sense of that term in which what is observed is ipso facto not inferred.26

When one attempts to find levels of peripheral behavioral judgments which are more secure than other judgments of peripheral behavior, there turns out to be a ramification of epistemological strata. Whenever an analogist endows one stratum with that very problematic title of "The Observable," it is important that he come up with criteria for such a baptism.

Now the task of determining the observation language may be, at least in part, a metaphysical task. If one is a radical strong eliminative kinematicist one will not countenance A-descriptions in the language of behavior. If he is a K/A emergent epiphenomenalst as is A. E. Tolman, he will countenance certain A-descriptions. What is overtly taken to be a purely epistemological issue is partly settled by a commitment to a behavioral ontology. The assumption

26Fodor, op. cit., p. 54.
behind such a move is a good one. We cannot observe what does not exist. Picking the language of observation is no metaphysically neutral task. If what I say is true, the behaviorist ought to do overtly what, in most cases, has been done covertly; he must expose his metaphysical presuppositions about the very nature of behavior itself.

It might be thought that the linguistic behaviorist can escape the problems of the metaphysics of behavior. After all, is he not talking about language rather than about the world? My counter to that is that he has, in the very picking of the language of behavior, already made covert metaphysical assumptions about the nature of behavior. When some expression classes are eliminated from the ranks of referential expressions, some strong eliminative position may be being covertly accepted.

The metaphysics of behavior here is not a determination of the nature of the items (e.g. universals?, events?). One can formulate the problem and come to a solution of it (the KA/P problem) without a metaphysics of behavior which specifies what an item is. In much the same way, mind/body theories can be neutral as to the nature of the referents. Perhaps one could make a distinction between relational metaphysics and nonrelational metaphysics here. The former attempts to present various patterns of reference for pairs of descriptions. The latter attempts to analyze the items
of the world which are being mapped on to. 27

Section Nine - Basic Actions and K/A Metaphysics

The notion of a basic action has been a notion used
metaphysically to locate bodily movements among collateral
actions. This means of locating bodily movements carries
with it certain presuppositions regarding the relational
metaphysics of behavior. One could not be a K/A reductive
kinematicist (identity theorist) and maintain that K-items
are more basic than A-items. For the reductive kinematicist,
every A-item is identical to some K-item. It is generally
agreed among basic action theorists that for the K-class of
items to be basic with respect to the A-class of items, no
members of the A-class can be identical to any members of
the K-class.

A basic action theorist cannot be a reductive kine­
maticist. Alvin Goldman attempts metaphysically to locate
basic actions (bodily movements) in such a way that there
may be a multiplicity of actions with bodily movements being
basic items. The nonbasic actions bear a noncausal relation
to the basic actions. Let 'K' and 'A' be names for two
classes of behavioral descriptions. A claim that the

27I have in mind, here, the Davidson corpus and arti­
K-items are basic with respect to A-items will involve the following:

1. K-expressions refer to K-items and A-terms refer to A-items.
2. The classes of K-items and A-items share no members.
3. K-items are "at the bottom" of a hierarchy of items consisting of the class of K-items and the class of A-items.

A K/A reductive kinematicist would, of course, reject the notion of a basic action since he will reject (2). The only basicness that a reductive kinematicist could countenance here would be a conceptual or epistemological basicness.

Section Ten - An Overview

In this chapter I have attempted to present a prolegomenon to a metaphysics of behavior. The phenomena that are of interest here are the various levels of description in the language of behavior; that is, the various description classes that purport to be about behavior. In this chapter I have attempted to show ways of metaphysically locating bodily movements and actions in much the same way that the mind/body theorists attempt to metaphysically locate minds and bodies. I have attempted to show the importance of such
theories in the formulation and resolution of the mind/body problem and the problem of other minds. I have also suggested that two ways of presenting the ontological status of bodily movements interrelate. One method of determining the ontological status of bodily movements among actions is the solution of the movement/action problem along lines similar to mind/body solutions. The other method is to go beyond the latter by assuming a K/A parallelism and talking about bodily movements as basic actions among numerically diverse collateral actions.

In the next two chapters I will be presenting attacks on reductive kinematicism. I will also suggest some possible defenses for the reductive kinematicist. It will be interesting to note that some of Goldman's attacks on reductive kinematicism are Leibniz' Law objections. I have already suggested possible ways to circumvent these objections that are not unlike ways to circumvent this kind of objection to reductive materialism.

In Chapter III, I attempt to uncover the nature of disputes about the numerical diversity of actions. In Chapter IV I attempt to show how that questions about the numerical diversity of actions involve a dispute about the numerical diversity of properties. Even those who maintain that actions are events, may end up with a property identity dispute, given the nature of events. I attempt to show in greater detail what an action hierarchy is and how a
reductive kinematicist may view alleged action hierarchies. Questions are also raised about the use of Leibniz' Law in identity claims in the metaphysics of behavior.

In Chapter V, my least original chapter, I catalog various notions of basicness which are putative candidates for picking out bodily movements as ontologically basic.

In Chapter VI I present a notion of conceptual basicness which could be used to metaphysically locate bodily movements in what one might call a multiple language theory of behavior.

In Chapter VII I will try to spell out in detail a K/A functionalist position and a K/A eliminative kinematicist position.

In Chapter VIII, I argue that one way to solve the mind/body problem is to treat mentalistic expressions as descriptions of peripheral behavior. The two relevant expression classes in the solution of the mind/body problem would be mentalistic descriptions of peripheral behavior and non-mentalistic descriptions of peripheral behavior. It should be noted that mind/body metaphysicians can disagree not only on the particular solutions, given two expression classes, but also on the more fundamental issue of what expression classes are relevant to the solution of the mind/body problem. The assumption that the non-mentalistic expressions at the mind/body gap are descriptions of peripheral behavior is an assumption about the very nature of the problem.
CHAPTER III

BASICNESS AND THE NUMERICAL DIVERSITY
OF ACTIONS

Introduction

In the first chapter I presented what appeared to be different descriptions of one and the same action. The first description contained kinematic and spatial terms such as in

(1) The driver's left arm was extended perpendicularly from the driver's trunk.

The other description was:

(2) The driver signalled.

But it should be noted that there is an issue which was passed over when I merely asserted that these were several ways of describing one and the same action. Not every action theorist would want to hold that what was described by (1) is one and the same thing as that described by (2). That is, some theorists would want to maintain that there was one action under different descriptions, whereas other theorists would maintain that what is described by (2) is
a numerically different action from what is described in (1).

The purpose of this chapter is not to come down on one side or the other of the identity thesis. In the first section of this chapter I shall be discussing the nature of identity disputes. First, are there various kinds of identity disputes, that is, kinds of disputes over the numerical diversity of actions? Secondly, are all of these disputes significant? That is, are some disputes pseudo-problems in some sense?

In the second section of this chapter I deal with the following question: "Does the notion of basicness or some notion of dependence among actions necessitate a rejection of the identity thesis?" Alvin I. Goldman thinks it does. I will attempt to show that basicness need not pick out one of numerically diverse actions but may pick out one of numerically diverse characteristics of one and the same action. More is needed than a notion of basicness and dependence if the identity thesis is to be denied.

The second section is very important because it relates to one central task of the whole work, the cataloging of various notions of dependence where the relata are numerically diverse actions or numerically diverse action

characterizations.

In the final section of this chapter I pull some loose ends together and then give an example of how philosophers in an identity dispute, viz. Anscombe and Goldman, can talk about similar notions of dependence and yet disagree about the relata. Whether or not the relata are dependent descriptions of one and the same action or are numerically diverse actions, we can still catalog notions of dependence while remaining neutral in the identity dispute. It is suggested that our notions of basicness and dependence will, for the most part, relate numerically diverse actions for those who reject the identity thesis and will relate numerically diverse descriptions of one and the same action for those who accept the identity thesis.

Section One - Identity Disputes

There have been at least two very general kinds of explanations for numerical diversity of things in the history of philosophy. First, the questions, "When do we have one thing rather than two?" or "How is it possible that this has remained a numerical unit despite change?" may be answered in terms of explanations containing such notions as bare particulars, collections of characteristics, or substances. To answer questions of why we have a unit or one thing rather than two, some philosophers give explanations with
reference to other things which individuate. The presupposition here is that things must be postulated whose main job is to account for numerical unity in spite of change. "Things" here can also be understood in terms of the ontological "glue" which binds certain characteristics into a unit or in terms of individuating things such as substances or bare particulars. Many times philosophers who explain the individuation of things with reference to individuating things or the ontic glue which binds things are searching for the true subjects, or the logical subjects of predication. Suppose, for instance, we explain John's being one and the same person over the span of time $t_1 - t_n$ with reference to an indivisible monad underlying change in John's character and physical characteristics. It would only seem natural that the true referent for the name "John" is that which remains the same despite change of properties. In a language designed to reflect the contents of the world, one might here be tempted to say that logically proper names applicable to persons really refer to persons monads and these are the true subjects of predication of such predicates as "...is six feet tall" or "...is angry."

The greatest weakness of the above explanation of nu-

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A good example of this is Thomas Reid's postulation of person monads. The main job of such monads is to explain the numerical sameness of persons in spite of changes and variations in a person's mental life.
merical diversity with reference to things that individuate is that it leaves language users and their activities out of the picture. If one analyses the term "individuate" as something irreducibly about the activities of language users upon things and not the relationship of things among things, there will be consequences in the explanation of numerical diversity. If we drop our guard on this matter it is easy to return to the explanation of individuation with reference to postulated entities whose sole or primary function it is to individuate. Many of the philosophical embroglios that collect around issues in the philosophy of language are the result of an all too easy abstraction from pragmatics; there is an all too easy transference of activities from language users to postulated entities in the world.

What I want to suggest is that the topic of numerical diversity or individuation is best understood not in terms of things whose sole function it is to individuate, but in

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3 P. F. Strawson has returned words such as "referring" to their proper home in pragmatics and draws out certain consequences in theory of meaning. "'Mentioning' or 'referring,' is not something an expression does; it is something that someone can use an expression to do. Mentioning, or referring to, something is a characteristic of a use of an expression just as 'being about' something, and truth-or-falsity, are characteristics of a use of a sentence." "On Referring" from Philosophy and Ordinary Language, Charles Caton, ed., University of Illinois Press, 1963, p. 170. Referring is not merely the relation of expression and entity nor is individuating a relation between postulated thing which individuates and individual. What must not be lost in analyses of meaning and accounts of individuation is the language user.
terms of the activities of persons who individuate with reference to classificatory schemes. Neither bare particulars, particulars characterized by essential characteristics, substances, various "glues" which bind characteristics nor names individuate. Language users individuate with reference to classificatory schemes.

The evidence for my position will be based on the nature of identity disputes themselves. I want to suggest that identity disputes or disputes on what descriptions describe two things rather than one or one thing under two or more descriptions are disputes about what kind of classificatory scheme is appropriate for an occasion or, given two appropriate classificatory schemes, which is best? "Best" does not mean "appropriate" here.

"Classificatory scheme" in this context must be explained. There are, in general, two different classes of ways in which we slice up behavior. We may put them under two headings: a) those connected with social institutions necessitating classifications of behavior and b) the classifications of behavior connected with theories in the metaphysics of behavior. Both ways of slicing up behavior may be evaluated as appropriate or inappropriate for some occasion. But only the class of competing theories may be evaluated as having members which are better or best. I am not committed to conventionalism. More will be said about these two different classes of ways in which we slice up behavior
after the following illustration.

Imagine a courtroom jury watching a news film of one action of alleged murder. One juror, who happens to be interested in anatomy sees ten muscle actions; a philosopher, having a particular theory of mind, believes that there was a non-photographable act of willing and a consequent photographable bodily movement; a third juror, a student of dance sees four actions prior to the firing of the gun; a gun enthusiast claims that there were several actions connected with the gun: the thumb cocks the revolver, the finger pulls the trigger, the cylinder is made to revolve and the hammer is made to descend upon the bullet. Meanwhile the attorney for the defense complains that he has seen only part of an alleged action. "The film does not show the slaying of a victim!" he is heard to remark. A fifth juror, not to be outdone, tries to determine whether there were two people or one who fired the shots. Upon deciding that there was just one agent he concludes that there was just one action. Complaining that there was a "jump" in the film, a sixth juryman demands to see the action displayed on each of the missing frames of the edited film.

We can formulate the various counting policies of the jurors. A counting policy is a rule that helps one decide when one has one thing with several descriptions or several things described by several descriptions.

1. Juror One: There is one action for every one
muscle movement.

2. Juror Two: There is one action for every act of volition and one for every consequent bodily movement.

3. Juror Three: There is one action for every basic dance movement.

4. Juror Four: The number of acts of shooting depends on the number of agents.

5. Juror Five: There is one action for every distinguishable mechanical variation of the revolver.

6. Attorney for the defense: There is not any action (of murder) unless there is at least one victim's death.

7. Juror Six: There is one action for every one unit of edited film or for every frame.

Now it is a happy circumstance that people, no matter what their main interests, can, at times, suspend their various ways of determining when there is one action and not two. This is done in order to solve certain problems. Dancers, gun enthusiasts and those interested in anatomy can work together in order to solve the problem raised by the question, "Who is responsible for the act of murder?" The jury system depends on a suspension of interests in order to accomplish a common task. Not only can juries suspend judgment such as "What I just saw on the film was a felony," juries can also suspend the use of inappropriate action
counting policies. The way a person would count actions as a gymnastic judge at an Olympic competition and as a juror, would hopefully vary.

Neither the ways of slicing up behavior used by the philosopher juror nor by the other jurors was the appropriate way of slicing up behavior, given the problem to be solved or the task to be accomplished. Given the problem or task to be accomplished, not all of the ways of classifying behavior would be appropriate.

There are various appropriate ways to classify behavior given various tasks and problems surrounding behavior. Given the task of accounting for what constitutes an intentional action rather than mere behavior, there is a subclass of classificatory schemes which is appropriate for the task. Among theories appropriate for the problem at hand there are some theories which are better than others; and one may be the best theory. The appropriateness of classificatory schemes should not be confused with which scheme, if it is a theory, is best.\(^4\) Those classificatory schemes of actions

\(^4\)"Appropriateness" means "relevant to the problem solving situation" in this context. Ways of slicing up behavior relevant to teaching dance steps may not be relevant to a solution to the problems raised by the metaphysician of behavior. Various theories in the metaphysics of behavior can be evaluated on grounds of simplicity, compatibility with previously well-established hypotheses and relevance to the facts. The latter criterion, the notion of relevance to the facts, is different from the notion of appropriateness in that relevance to the facts has to do with a possible
which are not those surrounding the philosophical problem of presenting positions in the metaphysics of behavior are, for the most part, classifications used by various academic or social institutions. That is, they are ways of slicing up behavior used by Olympic judges, dance instructors, traffic policemen and anatomists. The subclass of classificatory schemes which are theories in the metaphysics of behavior may, as all members of the class of behavior-slicing schemes, be appropriate or inappropriate, given a problem-solving occasion; and among the subclass of appropriate schemes which I have called theories in the metaphysics of behavior, some may be better than others. Our jurors could ask what classificatory scheme is appropriate? A group of action theorists could go beyond appropriateness to ask what theory in the metaphysics of behavior is best?

I have attempted to throw light on how it is possible to solve problems put in the idiom of individuation by solving the problem, "What classificatory scheme shall I adopt?" There are various criteria for adopting classificatory schemes. One criterion is the criterion of appropriateness given the occasion and the other has to do not only with the appropriateness of the occasion but the correctness of a relation between theory and fact. Questions of appropriateness have to do with whether or not the problem to be solved is even a theoretical issue (in this case, a theoretical issue in the metaphysics of behavior).
particular theory which is already, in some sense, appropriate, given the problem.

In answering the question, "What classificatory schemes shall I adopt?", it is very important that we be cognizant of whether or not a particular scheme is appropriate for an occasion, a problem situation. Is the occasion open for the classifications of a theory of action, or the classifications of judge at an Olympic competition of gymnasts? Many times we describe occasions in terms of background stories. At the initial part of this chapter, I presented an imaginary story in which certain counting procedures were appropriate given the occasion— that of a courtroom trial. Our jurors, hopefully could extrude from the subject matter distinctions immaterial to the discourse at hand.

Myles Brand criticizes both Alvin Goldman and Donald Davidson for leaving the notion of a background story out of their proposals for action individuation. Brand discusses Davidson's well-known example. "I flip the switch, turn on the light, and illuminate the room. Unbeknownst to me I also alert a prowler to the fact that I am home. Here I do not do four things, but only one, of which four descriptions

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\[5\text{If this sounds like Quine's expression in "Identity, Ostension and Hypostasis," it is meant to do so. From a Logical Point of View, (New York: Harper-Row, 1953) p. 71.}\]
have been given." Let the four descriptions be (la), (lb), (lc), and (ld) respectively. Brand claims "with some imagination background stories that would yield the results of almost every grouping of identity claims among (la), (lb), (lc), and (ld) could probably be devised." Brand goes on to claim the following:

It is not clear what these remarks show. One plausible explanation is that (la), (lb), etc.—indeed all the descriptions used by Goldman and others in the recent discussions of action identity—are incomplete descriptions. Identity claims in natural languages, at least claims about action or event identity, can be affirmed only within the context of a background story. This point is epistemic, though it probably has ramifications for the semantics of natural languages. In order to judge whether different descriptions express a single action, it is necessary to have complete descriptions and a complete background story. ('Adequate description' and 'adequate background story' might be better terms than 'complete description' and


7Myles Brand, "Book Review on A Theory of Human Action by Alvin I. Goldman. The Journal of Philosophy, Vol. LXIX, No. 9, May 4, 1972, p. 252. Brand gives an example of a background story, where it seems "that (la) = (lb) = (lc), but that event is not identical with (ld)." Although Davidson does not provide a background story, "for me at least, the most natural story is that Jones comes into the room, turns on the light, and, as a causal consequence of his doing that, alerts a prowler." Brand indicates that causal relata must be numerically distinct "hence, the entire sequence (ld) is not identical with Jones' action."
'complete background story,' since the latter suggest exhaustive descriptions.) I do not, however, have anything very helpful to say about the defining conditions for adequate action descriptions or adequate background stories.\(^8\)

We have here, at best, only an intuitive notion of what constitutes a background story. But Brand's comments are relevant to one point that I have been trying to make: what is taken to be identical involves knowledge of a context. It seems to me that the only reason why a background story is valuable here is that it is knowledge of a context which determines what way of slicing up behavior is appropriate; and knowledge of a context is gained from a background story.

A background story can, for instance, help us determine whether there are causal relata and which descriptions refer to them. Let us, for the sake of our discussion, assume a background story whereby the description \((1d)\) can be understood as referring to something which is causally related to that one and the same thing that \((1a)\) and \((1b)\) and \((1c)\) refer to. Brand claims the following on this issue:

Now the following principle governing our ordinary notion of causation is highly plausible: for any events \(e\) and \(f,\) \(e\) is distinct from \(f\) if \(e\) causes \(f.\) Part of the sequence described by \((1d)\), then, is distinct

\(^8\)Ibid., p. 252.
from Jone's action; and hence, the entire sequence (ld) is not identical with Jone's action.9

Brand's move should make those who present the identity thesis more sensitive to the actual context in which behavior is being sliced up.

Identity disputes surrounding or connected with various theories of action usually break out when one theorist claims that among a set of descriptions (a) some refer to basic actions and others refer to non-basic actions and/or (b) the descriptions refer to causally related, thus distinct events. So identity disputes in the theory of action are parasitic on at least two issues: basic actions and the proper causal explanation of behavior. The identity dispute between A. I. Melden and Donald Davidson turns on the latter point.10 The dispute between Alvin I. Goldman and those who hold the identity thesis turns on both points. Goldman, as we shall see in the following section, denies the identity thesis by supporting a position which countenances basic actions.

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9Ibid., p. 252.

We are now ready to enumerate the kinds of identity disputes which can arise with reference to actions. I shall enumerate the kinds within the following genus-species outline. These do not exhaust all possibilities.

I. Identity disputes arising from competing theories postulating things which individuate

II. Identity disputes arising from competing classifications—in this work competing classifications of behavior

A. Disputes arising from competing institutional classifications of behavior not related to problems in the metaphysics of behavior

B. Disputes arising from classifications of behavior in competing theories in the metaphysics of behavior

1) theories concerning the structure or ontological status of individual actions (e.g. Are they events or universals?)

2) theories in the relational metaphysics of behavior (e.g. reductive kinematicism; K/A functionalism and theories about basic actions)

I have been rather cavalier in rejecting the identity disputes in (I) as being misguided. This sort of identity dispute has a long tradition in the history of
philosophy, a tradition which extends into this century where there has been a quest for the true individuators and ipso facto, the true logical subjects. Substances, bare particulars, various ontic glues gluing clusters of characteristics, and particulars characterized by essential characteristics have been hypothesized to explain the very possibility of numerical diversity. This whole family of explanations I have rejected. For those of my readers who do appreciate such explanations of numerical diversity and have good arguments to back up their appreciation, may I suggest a mere diversion of attention to the more central issue of this work. The only identity disputes relevant to this work are those arising out of competing theories in the relational metaphysics of behavior.

Section Two - Basic Actions and the Identity Thesis

In this section I shall discuss an identity dispute in which a philosopher claims that a theory of basic actions

A good example of this kind of identity dispute, as I stated earlier, is the dispute between Hume and Reid on what is to explain the numerical diversity of persons. Reid explains numerical diversity in terms of indivisible monads while Hume explains numerical diversity in terms of clusters of perceptions bound by easy transitions of the imagination. David Hume "Of Personal Identity" and Thomas Reid "Of the Nature and Origin of Our Nature of Personal Identity" reprinted in A Modern Introduction to Philosophy (New York: The Free Press, 1957).
is incompatible with the identity thesis. And this philosopher opts for a theory of basic actions, thus rejecting the identity thesis. A central question in this section is this: Must a basic action theorist reject the identity thesis?

Alvin Goldman rejects the identity thesis for various reasons not the least of which is the following:

My final criticism of the identity thesis concerns the contrast between basic actions and non-basic actions. Along with many other philosophers, I am inclined to think that some of our actions are basic actions and that other actions of ours are not basic actions. Moving my hand is a basic action, whereas checkmating my opponent and turning on the light are not basic actions. Rather, they are actions I perform by performing some basic actions. Now if the identity thesis is correct, then the distinction between basic actions and non-basic actions must be abandoned. For if John's moving his hand is a basic action, and if it is identical with John's checkmating his opponent, then his checkmating his opponent is also a basic action.12

I want to argue that one can still keep some notions of basicness and dependence without rejecting the identity theory if we do not require that the relata be numerically diverse actions but allow for numerically diverse properties of one and the same action.

Furthermore there seems to be no reason why basic action properties could not themselves be the indices of

12Goldman, op. cit., p. 6.
numerical diversity. If that were the case, there would be no necessity to reject the identity thesis. There is no necessity to reject the identity theory if (a) we talk of agent-exemplified properties and (b) we treat some of those properties, those specified as basic in some sense, as indices to the numerical diversity of actions. Goldman himself opens himself up for this move when he claims that

...when we ascribe an act to an agent, we say that the agent exemplified an act property (at a certain time).\(^{13}\)

I see no reason why the relation of dependence and the notion of basicness cannot apply to such properties. Goldman himself seems to do this. Furthermore, and this is my second move, I see no reason why an act theorist could not count actions by counting agent-exemplified basic act properties at t. There is one and the same action only if there is one and the same basic act property exemplified by one and the same agent at t.

Indeed one motive for searching for basic actions may be the hope that, once found, they will provide us with a clear way of counting actions. There will be as many actions as there are cores of basic actions.\(^{14}\)

\(^{13}\)Ibid., p. 10.

\(^{14}\)Annette Baier makes this important point in "The Search for Basic Actions," American Philosophical Quarterly, Vol. 8, No. 2, April 1971, p. 165. I shall rely heavily on this article in cataloging various notions of dependence among actions in Chapter V.
We can imagine here a situation in which basic act properties are essential to the numerical diversity of actions and dependent act properties are accidental with respect to the numerical diversity of actions. Now if we treat basic act properties as essential to the numerical diversity of behavioral items and dependent act properties as accidental to the numerical diversity of behavioral items, one agent at \( t \) exemplifying one basic act property may exemplify two different accidental act properties at \( t \). Numerical diversity of actions would not vary with accidental act properties although it would vary with the number of agents, times, and basic act properties. Given these moves, it would seem that the identity thesis could still stand in spite of whether or not there are basic act properties. The numerical diversity of actions of an agent at \( t \), which Goldman tolerates, would be rejected due to a more restricted counting policy. The number of actions at \( t \) would be no more than the number of basic act properties exemplified by an agent at \( t \).

Section Three – A Claim to Neutrality

Although there seems to be more reason than not why one who countenances basic act properties would reject the identity thesis, it is not clear why basic act properties could not themselves be an index to numerical diversity of
actions. Variant action descriptions of an agent at t could be said to be descriptions of one and the same basic action.

The various descriptions may be somehow generated from the basic act descriptions but for every generated description of an action there need not be a numerically diverse action. This is, in fact, the position that one identity theorist takes. G. E. M. Anscombe explains how action descriptions are generated in much the same way that Goldman claims that numerically diverse actions are generated. Goldman talks of the generation of numerically diverse actions whereas Anscombe talks of the generation of numerically diverse action descriptions.

Goldman has a notion of conventional generation.\(^\text{15}\)

"Act-token A of agent S conventionally generates act-token A' of agent S only if the performance of A in circumstances C (possibly null), together with a rule R saying that A done in C counts as A', guarantees the performance of A'."\(^\text{16}\)

Now, notice the similarity of Anscombe's notion of dependence. The following quotation is from the locus

\(^{15}\)Goldman speaks of "level generation" or just "generation." Level generation is a relation holding between ordered pairs of exemplified act properties of the same agent. Level generation "is intended to be an asymmetric, irreflexive, and transitive relation." (p. 21) Goldman's notions of generation are paradigmatic of the notions of dependence relations that will be cataloged in Chapter V. They are used to define basicness among collateral actions.

classicus of her presentation of the identity thesis. It parallels Goldman's notion of conventional generation. But Anscombe talks of the dependence of descriptions of action, not actions. She talks of the generation of various action descriptions with reference to circumstances. And here we can note the similarity to Goldman's definition of conventional generation presented above.

Are we now to say that the man who (intentionally) moves his arm, operates the pump, replenishes the water supply, poisons the inhabitants, is performing four actions? Or only one? The answer that we imagined to the question 'Why?' brings it out that the four descriptions form a series, A-B-C-D, in which each description is introduced as dependent on the previous one, though independent of the following one. Then is B a description of A, C, of B and so on? Not if that means that we can see that 'he is operating the pump' is another description of what is here also described by 'he is moving his arm up and down'--in such a way that is, that what verifies the latter, in this case, also verifies the former. On the other hand, if we say there are four actions, we shall find that the only action that B consists in here is A, and so on. Only more circumstances are required for A to be B than for A just to be A. And far more circumstances for A to be D, than for A to be B...In short, the only distinct action of his that is in question is this one, A. For moving his arm up and down with his fingers round the pump handle is, in these circumstances, operating the pump; and in these circumstances, it is replenishing the house water-supply; and in these circumstances, it is poisoning the household.

So there is one action with four descriptions, each dependent on wider circumstances,
and each related to the next as description of means to end.\textsuperscript{17}

I leave it open as to whether we were going to catalog various notions of dependence among numerically diverse actions or, on the other hand, numerically diverse action descriptions. We can still talk of dependence regardless of whether or not we are talking of dependence among numerically diverse actions or among numerically diverse descriptions of one and the same action. We may catalog various notions of dependence and be neutral in the identity dispute between Anscombe and Goldman if we maintain a neutrality as to whether we have two or more descriptions of one and the same action or two or more actions.

In conclusion there are three central things that I have done in this chapter. I discussed, first of all, the nature of some identity disputes or disputes on the numerical diversity of actions. It is very important to determine what such disputes are parasitic upon, what theories are being accepted and rejected having consequences for the numerical diversity of actions.

Secondly, I showed how notions of basicness might be used to deny the identity thesis. But I also showed how such notions could be used to support it—how basic act

properties could themselves be treated as being essential to numerical diversity, whereas non-basic act properties could be treated as accidental to numerical diversity. All that boils down to is this: we could count the number of actions of an agent at t by counting the number of basic act properties exemplified by an agent at t rather than the non basic act properties exemplified by the agent at t. Finally I made the important claim to neutrality on the identity thesis. I wanted to show that neutrality is possible and still show how we could catalog various notions of dependence and basicness. Some philosophers will want to claim that the relata of the various notions of dependence are numerically diverse actions; others will claim that the relata are numerically diverse descriptions of one and the same action. But regardless of whether we are discussing dependence among numerically diverse actions or numerically diverse descriptions of one and the same action, certain notions of dependence can be cataloged. Various notions of dependence will be presented in the next three chapters.
CHAPTER IV

PROPERTY INDIVIDUATION AND THE NUMERICAL DIVERSITY OF ACTIONS

Introduction

In the last chapter an attempt was made to uncover certain issues relating basicness and the numerical diversity of actions. In this chapter there will be a discussion on the role of property individuation in the numerical diversity of actions.

The first task will be to treat actions as Kim-Brandt events and to determine the role of property individuation in the numerical diversity of Kim-Brandt events. I will rely on Alvin Goldman here. Another view which treats actions as universals, the view of Charles Landesman, will be seen to involve a criterion for the identity of properties.

In the second section of this chapter, criteria for property identity will be discussed.

The material in this chapter will be crucial in the resolution of certain issues surrounding the K/A identity theory. This chapter is a chapter on K/A relational meta-
physics only indirectly. The main task is the nonrelational metaphysics of action, the structure of action.

Section One - Actions as Kim-Brandt Events

Alvin Goldman, as suggested in Chapter I, is not a K/A identity theorist. K-items are not identical to A-items. The numerical diversity of A-items from K-items is based on the numerical diversity of properties and the events of which they are components. But at this point one wants to ask, "What is an event?" and "How is one event individuated from another?" In answer to these questions Goldman is indebted to Richard Brandt and Jaegwon Kim's work on the identity theory of mind.1 Kim and Brandt give the following analysis of an event.

To say that there is an event of a certain kind is to say that some logically contingent property (set of properties) is instantiated at a specific time and "location." Thus we consider that an event can always be described by a triplet of the form \((U_i, t_i, L_i)\) where \(U_i\) is a property, and \(t_i\) and \(L_i\) are a time and a location, respectively. We use the term 'location' very broadly as a technical term which may be, but need not be, construed to refer to physical position. We are supposing

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that a philosopher will have his conception of what are the fundamental individuals of the world by reference to which any event may be uniquely identified.²

The notion of location is an ontologically neutral one. That is, it does not determine what are the fundamental individuals.

One might...take events such as momentary sensibilia or sense data as the fundamental individuals, in which case one would presumably identify an instance of a property through quasi-spatiotemporal relations to a given phenomenal field. It is our purpose in this paper to avoid choice among various ontologies.³

We now must discuss event identity. I shall use the following criterion of Brandt and Kim:

One event \((U_i t_i L_i)\) is the same as another event \((U_j t_j L_j)\) if and only if \(U_i = U_j\), \(t_i = t_j\), and \(L_i = L_j\).⁴

Even if we accept this as the criterion for the numerical diversity of events, we will still need a criterion for the numerical diversity of properties, times, and locations. Most identity disputes in philosophy are those in which both disputants could accept the above as a criterion for the numerical diversity of events but would still dispute the criteria for numerical diversity of properties and locations.

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²Ibid., p. 214.

³Brandt and Kim, p. 214.

⁴Ibid., p. 215.
(Time is usually no problem since in most cases disputants would rely on accepted time-conventions for a notion of sameness of time.) With the above notion of event identity we can see that there would be, then, two classes of identity disputes: (A) those based on location identity and (B) those based on property identity. An identity dispute based on location identity will be one in which the numerical diversity of properties and times is not in question. An identity dispute on property identity will be one in which the numerical diversity of locations and times is not disputed.

Now, when one enters into an identity dispute, it will be very important to ask what kind of an identity dispute it is. The way we resolve one kind is not the way we resolve the other kind; and when we defend an identity thesis it will be very important to see what we are defending.

The kind of confusion we can get into is reflected in some of the moves I made to support the identity thesis in Chapter III. If my analysis is correct, "identity thesis" with regard to action is ambiguous. We can view action identity disputes as both location identity disputes and property identity disputes. I defended the identity thesis against Goldman in Chapter III by talking about what constituted the fundamental individuals which exemplified action properties. I suggested that basic action characteristics could be treated as essential to the numerical diversity of
actions. Actions as events could exemplify other characteristics which were not essential to the numerical diversity of actions. My attempt to support the identity thesis and still utilize the notion of basic action was an attempt to specify the value of L. L would itself be a basic action which exemplified non basic act properties. One basic action could exemplify different act properties. ⁵

Now it is open for Goldman to claim the following.
"The acceptance or rejection of the identity thesis with regard to actions, the dispute in which I am engaged, is not a location dispute. It is a property dispute only. My disputants and I are not disputing location or time. We are disputing the identity conditions for properties."

Goldman gives special attention to the criterion for the numerical diversity of properties;⁶ and he uses this as a criterion for determining the numerical diversity of actions. What I want to suggest is that Goldman's rejection of the identity thesis regarding actions (against Anscombe) is a property-identity dispute. The dispute will be over the conditions for the numerical diversity of properties not over the numerical diversity of locations.

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⁵The dispute, as I attempted to solve it, was to specify the conditions for the numerical diversity of L.

⁶Goldman, p. 10-15. See also footnote 12, Chapter II of this work.
Tests for the numerical diversity of properties usually fall into two types: (a) those which utilize a notion of synonymy and (b) those which utilize a criterion of parsimony. On the one hand, we may say that the property of being a bachelor is identical to the property of being an unmarried male. On the other hand, there are attempts to talk of the same property when the expressions of those properties are not claimed to be synonymous. Some philosophers want to maintain that such properties as (a) having a pain and being in neural state n or (b) having temperature T and having mean molecular kinetic energy M (where values are specified for T and M) are, or can be said to be, one and the same property. Property identity disputes among disputants who agree that the expressions of those properties are not synonymous are usually resolved on grounds of ontological simplicity after a nomological correlation has been made. The question is resolved by determining whether the identity of the alleged nomologically correlated properties would serve the interests of simplicity. The presence of numerically diverse correlata could be explained by the different ways of knowing about or talking about one and the same thing.7

I am now in a better position to present a taxonomy of kinds of identity disputes in the area of theory of action.

7See Brandt and Kim.
This taxonomy follows from the treatment of actions as events and the identity criteria for events. I shall enumerate the various kinds of identity disputes in this genus-species outline. The genus here is the class of event identity disputes.

I. Event identity disputes

A. Event identity disputes where \( U_i \) in \( (U_i \land L_i) \)
is an act property and \( L \) is a location.

1. Location identity disputes - disputes over the numerical diversity of values of \( L \) only.

2. Property identity disputes - disputes over the numerical diversity of values of \( U \) only.\(^8\)

The identity dispute between Goldman and Anscombe is a property-identity dispute. Goldman accounts for the numerical diversity of actions by claiming the numerical diversity of act-properties (given a synonymy criterion). Anscombe and Davidson on the other hand are, I think, more worried about ontological simplicity. That is, they make a claim about the identity of actions simply on the grounds of parsimony even though the act property expressions are not

\(^8\)Compare this with the taxonomy of identity disputes presented in Chapter III. Some of the same elements are presented in each.
synonymous. For them, two non-synonymous descriptions may refer to one and the same act property.

Identity disputes about events, if they involve identity disputes about locations (location-identity disputes) may involve a dispute over (a) what things are postulated which have the sole job of individuating other things or (b) what things language users treat as fundamental individuals given their classificatory schemes. In Chapter III, I rejected the a-type location-identity disputes.

My showing how Goldman could keep the notion of basic action without rejecting the identity thesis was accomplished by suggesting that one and the same agent could exemplify a basic act property and two non basic act properties; and this could be viewed as one action. I saw no reason why one had to give up the notion of a basic action by accepting the identity thesis. One action could have various act properties. I used a term, however, which could be construed as a location-identity dispute of type (a) above. The term was "essential" where a characteristic was essential to the numerical diversity of actions. I have rejected (a)-type location identity disputes as being based on a confusion. The term "essential" is however, meant to be essential.

9 There are different notions of "fundamental individuals" reflected in different ontologies having different notions of ontological basicness.
elliptical for "essential given language users acts of individuation with reference to a classificatory scheme."
The latter is a (b)-type location-identity dispute. 10

Since Goldman is engaged in a property-identity dispute, my move to resolve the issue on the presupposition that it was location identity dispute can now be seen as having pedagogical value only. It reflected (a) the easy confusion that one can get into by not distinguishing property and location identity disputes and (b) an ambiguity in the notion of "identity thesis." Once again I recommend that those who accept or reject the identity thesis make clear just what follows from its acceptance or its rejection. Identity disputes over actions, since they are events, may reflect (a) a dispute over the numerical diversity of properties, or (b) a dispute over the numerical diversity of locations or (a) and (b).

As I indicated above, the identity dispute between Anscombe and Goldman is, I think, a property-identity dispute. By that I mean the following. Let $U_i, U_j, U_k,$ and $U_l$ be moving the arm, operating the pump, replenishing the

10 The point of all this is to show the importance of bringing the language user into discussions of identity and numerical diversity. Unless this is done, one runs the risk of an ad hoc postulation of entities such as essential characteristics, bare particulars, monads and substances, which are postulated to account for numerical diversity or unity without reference to language users. See Chapter III, Section One.
water supply, and poisoning the inhabitants, respectively. Anscombe wants to claim that \( U_i t_i L_i = U_j t_i L_i = U_k t_i L_i = U_1 t_i L_i \). This claim must be based on the following identity:

\( (2) \ U_i = U_j = U_k = U_1 \). Goldman's synonymy criterion for the numerical diversity of properties does not allow (2).

Anscombe claims (2) to be true, but on what grounds? The only ground left is, I think, some notion of ontological parsimony. 11

But now I must admit that the identity thesis is incompatible with basic actions if one is engaged in a property identity dispute. Assuming that actions are Kim-Brandt events, the only way to have numerically diverse actions is to have numerically diverse properties where time and location are not being disputed.

Given their respective criteria for the numerical diversity of properties (2) is false for Goldman thus (1) is false. Anscombe, as I interpret her, in accepting (2), would accept (1) where time and location do not vary.

An identity theorist can maintain that description

\( 'U_i' \neq 'U_j' \neq 'U_k' \neq 'U_1' \) but still maintain that properties

11It should be noted that the considerations for claiming the physical-phenomenal property identity seem to be different in kind from the considerations for claiming act property identity. But I will show that there is a very close relationship in the logical issues raised.
\[ U_i = U_j = U_k = U_1 \] and thus \( (U_i t_i L_i) = (U_j t_i L_i) = (U_k t_i L_i) = (U_1 t_i L_i) \).

As an example of a case in which we can talk of a hierarchy of action descriptions, let us return to Anscombe's presentation of the identity thesis. Anscombe claims that "there is one action with four descriptions, each dependent on wider circumstances and each related to the next as description of means to end."\(^\text{12}\)

Dependence here is a relation among act descriptions. More specifically, the relata are uses of act descriptions:

1. The use of '\( U_i \)' where '\( U_i \)' 'is moving the arm.'
2. The use of '\( U_j \)' where '\( U_j \)' is 'operating the pump.'
3. The use of '\( U_k \)' where '\( U_k \)' is 'replenishing the water supply.'
4. The use of '\( U_1 \)' where '\( U_1 \)' is 'poisoning the inhabitants.'

There are different ways to add to the "use of '\( U_i \)'" locution. Let \( U_i \) be an act property.

1' The use of '\( U_i \)' in circumstances \( C_i \) to refer to \( U_i \)
2' The use of '\( U_j \)' in circumstances \( C_i, C_j \) to refer to \( U_i \)

\(^{12}\) Anscombe, Intention p. 45. One could talk of means-end dependence here too, but for the moment I only consider how act property descriptions can be said to be dependent on wider circumstances.
The relation between action description and action property is a semantic relation. All descriptions in (1' - 4') refer to one act property. As one progresses from 1' to 4', wider\textsuperscript{13} circumstances or contexts are involved. The value of R in the above action description hierarchy is this:

\begin{equation*}
R: \ldots is used in narrower circumstances than \ldots .
\end{equation*}

The descriptions of bodily movement could be said to be basic in the set since other descriptions involve wider circumstances for their use and no description in the set involves narrower circumstances for its use in referring to \( U_i \).

Within one level of a hierarchy, one could utilize the relation between sign and significance rather than description and descriptum. Let the property \( U_i \) be a sign. "Significance" means "content" or "meaning."\textsuperscript{14}

\textsuperscript{13} We are supposed to have an intuitive notion of what "wider" and "narrower circumstances" mean. I am not sure I do; but I think that such phrases indicate degrees of complexity of functional organization. Talk of functional organization will be carried out in Chapter VII.

\textsuperscript{14} This sort of talk has recently gained more
Here the hierarchy consists of various meanings or contents of one and the same sign in various widening contexts or circumstances. The identity theorist could maintain that there is but one sign, one act property with varying significance. Once again the value of \( R \) could be the same as in that for (1' - 4'), but the relata will be various contents or meanings.

What the identity theorist must do is account for the numerical unity of act properties and the numerical diversity of act property descriptions or act property meanings. In both (1' - 4') and (1'' - 4'') the quoted expressions are substituends of intensional contexts—contexts which fail to support Leibniz' Law. For example, even if (a) the act property, moving the arm = the act property, operating the pump and (b) 'moving the arm' used in \( C_i \) refers to moving the arm, we cannot infer from (a) and (b) that 'operating the pump' used in \( C_i \) does not refer to moving the arm.

popularity. See Dennett's Chapter IV, "The Ascription of Content" from Content and Consciousness.
Here is another example related to (1'' - 4''): Even if (a) the act property, moving the arm = the act property, operating the pump and (b) moving the arm in C_i has the significance 'moving the arm,' we cannot infer from (a) and (b) that moving the arm in C_i has the significance 'operating the pump.'

Dependence hierarchies for the act property identity theorist will consist only of action descriptions used in intensional contexts.

Section Two - The Numerical Diversity of Act Properties

If actions are treated as Brandt-Kim events or on the other hand, as mere universals, the identity disputes concerning actions will turn, for the most part, on the identity of properties or universals. Brandt-Kim events have, as a component, a property or universal; and the numerical diversity of the complex is a function, in part, of the numerical diversity of the components, one of which is the property component.

Earlier in this chapter, two procedures for determining the numerical diversity of properties were suggested: (a) those that utilize a notion of synonymy and (b) those which utilize a criterion of parsimony. In this section these criteria will be discussed.
Charles Landesman\textsuperscript{15} and Alvin Goldman both rely on a qualified synonymy criterion for property identity. The unqualified criterion for Goldman is this: "Properties Q and Q' are identical just in those cases when they are expressible by synonymous expressions."\textsuperscript{16} Landesman's unqualified or rough criterion is as follows: "Predicates which are logically independent of one another designate different attributes."\textsuperscript{17} (Predicate A is logically independent of predicate B if and only if the statement that some particular thing is an A neither entails nor is entailed by the statement that that thing is a B.) The unqualified version does not adequately cover counterexamples designed to show that there are cases in which logically independent predicates designate the same property. Consider, for example, the following:

(a) Jones went to the beach yesterday.
(b) Jones did what Smith did yesterday.

If we assume that Smith also went to the beach yesterday, one might argue that the predicate of (a) "went to the beach yesterday" designates the very same action as the predicate of (b) "did what Smith did yesterday" even though they are obviously logically independent. The action that Smith performed was


\textsuperscript{17}Landesman, op. cit., p. 251.
to go to the beach; the intent of (b) is to ascribe that very same action to Jones; thus the predicate of (b) must, it is argued, designate the very same action as that designated by the predicate of (a).\textsuperscript{18}

This leads Landesman to qualify the initial criterion. The qualification involves making a distinction between informative designation and noninformative designation. Q, the original criterion, becomes Q':

\begin{quote}
Predicates which are logically independent of each other, and are informatively designative, designate different attributes.
\end{quote}

Goldman makes the same move as Landesman. Just as Landesman distinguishes informative from noninformative designation, Goldman makes the parallel distinction between expressing a property and indirectly referring to it.

We must note at once...that properties can be identified or designated in a variety of ways. The phrase "being blue" identifies or picks out the property of being blue. But this property can be referred to by a definite description such as "the color property of the sky" which is clearly not synonymous with "being blue." However, although we can refer to this property with the expression "the color property of the sky," this phrase does not express this property in the way that "being blue" expresses it. The proposed synonymy criterion must be restricted to phrases that express properties, and must not be applied to definite descriptions that merely refer indirectly to properties.\textsuperscript{19}

\textsuperscript{18}\textit{Ibid.}, p. 251.

\textsuperscript{19}\textit{Goldman, op. cit.}, p. 12. Both Goldman and Landesman
Now the identity of properties can, I think, be made on the grounds of parsimony alone. Even though two property expressions are not synonymous, they may be claimed to be coreferential; but, of course, an extremely parsimonious ontologist would not countenance referents of property expressions to begin with. Any Quinean is going to find such a criterion repugnant. First of all, countenancing propositions and attributes as objects of reference will be ontological slum-dwelling. Secondly, the concept of synonymy raises serious questions in turn.

Section Three - K/I Theories

Let us call the subclass of A-descriptions which are intentional action descriptions, "I-descriptions." The ascription of an I-description presupposes or implies that the agent, acting purposefully, performed the action in question such that the agent exercised control in its performance. The set of theories presented by Shaffer (as quoted in Chapter I of this dissertation) are attempts to answer the question, "What accounts for the difference between a mere explicate the semantical predicates "expresses" and "informatively designates," respectively, by only an enumeration of examples. I will not attempt to go beyond them here; although the distinctions involved seem obvious, it is not clear how to formulate the criteria of the distinction.
movement and an intentional action?" There is a watershed between theorists of intentional action who assume that this question can be answered in terms of peripheral behavior alone and those who believe that intentional action must involve some sort of central behavior. (Much more will be made of this watershed in Chapter VIII.) For our purposes, let us assume the peripheralist posture, controversial though it is. Furthermore, let us not worry about the structural or nonrelational metaphysics of action. What I want to do is to suggest that three of the five theories presented by Shaffer can be construed as K/I identity theories. Each presents differences which may be restricted from the propositional contexts legitimately used to infer the numerical diversity of items given Leibniz' Law.

The performative theory explicates I-expressions as having a role in the performance of assigning responsibility, but K-expressions do not have such a role. This is a difference only in the pragmatical properties of I-expressions and K-expressions. The expressions could still be coreferential. One could go even further and take a strong eliminative position; here one would maintain that I-expressions have only a performative role and not a descriptive-referential role. I-expressions can be eliminated from the language of ontology.

Theory (4) of Shaffer's enumeration shows merely the role of I-expressions in purposive rule-following
explanations; K-expressions, on the other hand, do not have such a role. A dualism of explanatory languages is not an ontological dualism.

Finally, the contextualist account merely shows that I-expressions are used to draw attention to a context of rules, norms or practices; K-expressions are not used in this way. A. I. Melden can be viewed as having a contextualist theory. Once again this allegedly differentiating property is not something that would count in the denial that I-items are identical to K-items.

Most theorists of intentional action owe their readers a metaphysics of intentional action. For the most part, the discussion is on the pragmatics of action ascriptions; and the points made are compatible with K/I theories of various sorts, the most prominent of which is K/I identity theory. The three theories above could be taken to be K/I strong eliminative positions. The contextualist theory could be treated as a K/I functionalism. In Chapter VII, I shall present such a position in more detail. In K/I functionalism, I-expressions refer to certain role properties realized by K-items.

One cannot overlook and neglect the ontology of actions in presenting the K/I identity theory. If one were to view I-expressions as referring to universals or properties such that I-expressions and, say, K-expressions refer to one and the same property, the question would arise as to the
appropriate use of Leibniz' Law. In the following formulation, x and y would range over properties.

Necessarily: \((x)(y) \to (x=y) \supset (\emptyset)(\emptyset x \equiv \emptyset y)\)

Section Four - Causal Contexts and the Numerical Diversity of Actions

One of the dilemmas that Goldman puts the K/A identity theorist in is that one must reject either K/A identity theory or reject the extensionality of causal contexts; he rejects K/A identity theory. In Chapter I, I maintained that causal contexts are intensional. Goldman has a rebuttal. In the determination of intensional contexts, an uncontroversial premise of identity must be granted antecedently. But regarding causal contexts there are no such premises. Therefore, attempts to prove that causal contexts are intensional must beg the question by presupposing an identity claim which is true only if the causal context is intensional.

Myles Brand\(^{20}\) attempts to argue against Goldman with an antecedently acceptable identity claim: The President in 1963 = Johnson. Regarding the context, "...caused the

event of ______.," Brand considers the sentence formed by replacing "..." with the event description "the assassination of JFK" and by replacing "_______" with the event description, "Johnson being the President in December 1963."

Since

(1) the President in December 1963 = Johnson
we obtain

(2) the assassination of JFK caused the event of Johnson being Johnson.

Now (2) is obviously false and (1) is antecedently acceptable as being true. But I think that Goldman could reply in the following manner. First, the substitution involved in (2) is a substitution into the context, "...caused the event of Johnson being ______." This is somewhat different from the original context, "...caused the event of ______." Secondly, if we stick to the original context, the context in question, the identity claim (1) must be replaced by

(3) Johnson being President in 1963 = Johnson being Johnson.

(3) is not the uncontroversial identity claim that Brand needs. The identity of these events could not be made without begging the question. In fact Goldman would, given his criterion for event identity, view the statement of identity as false. The event properties are not the same. Goldman's game plan is fairly straightforward.
First, he treats events as causal relata; second, the prolif- 
eration of intensional contexts is averted by maintaining 
that, at least in the case of causal contexts, uncontrovers- 
sial, nonquestion-begging identity claims cannot be made. 

There are two rules of parsimony that may come into 
conflict in discussions on reference and modality. One is 
"Thou shalt not proliferate intensional contexts." The 
other is "Thou shalt not proliferate kinds of entities." 
Goldman and Kim salvage the first while abrogating the sec- 
ond. In their logical parsimony regarding intensional con-
texts they pay the price of admitting properties into their 
ontology. It is interesting to note that one could, as a 
loyal Fregean, treat all intensional contexts as logically 
extensional contexts containing expressions referring to in-
tensional objects. Goldman is willing to pay this price in 
keeping causal contexts extensional; but here one could sug- 
gest, in the name of consistency, that such a price could 
be paid regarding every alleged logically intensional con-
text. One can save the logical extensionality of any al-
leged intensional context by introducing objects in possible 
worlds, meanings, senses, propositions, properties and in-
tensional inexistents. The logically parsimonious want to 
stop the proliferation of logically intensional contexts 
and, with a little more ambition, they may even want to re-
duce theory of meaning to theory of reference. But in doing 
so, they may increase the kinds of referents to accommodate
such logical parsimony.

The resolution of this problem involves the etiquette of parsimony. What would be exciting here would be a solution which serves both the logically and the ontologically parsimonious; and I do not pretend to have that solution.
CHAPTER V

BASIC ACTIONS AND K/A PARALLELISM

Introduction

In Chapter I, I attempted to show the role of various notions of basicness in ontological inquiry in general; I then suggested that one could catalogue various notions of basicness which could be used to pick out basic actions among collateral actions.

In Chapter III, I raised the issue of the numerical diversity of collateral actions. The central issues explored there were the logical compatibility or incompatibility of the identity thesis and claims about there being basic actions. In Chapter IV, I showed how one could accept the identity thesis regarding collateral actions and still utilize some notion of basicness where R involves an intensional context. Since questions of identity cannot be severed from questions of ontology, I was forced to specify the identity thesis in further detail. That is, I showed that the identity thesis regarding collateral action descriptions involves a property identity thesis. It is
interesting to note that those who support or reject the identity thesis can best be understood (in my reconstruction) as providing various answers to the question, "When do we have two or more properties rather than one?"

In Chapter II, I presented a K/A theory called K/A parallelism. The K/A parallelist maintains that:

1) K-terms refer to K-items and A-terms refer to A-items.

2) No A-item is identical to any K-item.

3) K-items and A-items bear some ontological relation to each other which is not a causal relation.

K/A parallelism is a position which is compatible with positions held by those who accept it that there are basic collateral actions. Talk of basic actions requires, for the most part, the presentation of some asymmetrical, irreflexive and transitive dependence relations among numerically diverse collateral actions.

There are two main questions that will be raised during the course of our presentation of dependence relations:

(a) Are only K-items selected as basic given the dependence relation in question? (b) Is the dependence relation a relation among collateral actions? The first question is important since most basic action theorists claim that bodily movements and only bodily movements are basic among collateral actions. The second question is important given possible disputes between a K/A identity theorist and a
K/A parallelism. The identity theorist would want to claim that alleged dependence relations among alleged numerically diverse collateral actions are really logical, linguistic or epistemological in character and, as such, are not relations among numerically diverse collateral actions. The second question will be the most important question in presenting and making plausible a K/A parallelism. Possible dependence relations fulfilling (3) above must be ontological (rather than logical or epistemological); and they must not be causal. Whether or not there are such relations will be a matter of concern in this chapter. Most of the present chapter will be a survey of a wide range of dependence relations, a catalog gleaned from current literature on basic actions; much of this segment is a mere catalog.

In this chapter I am ready to present various notions of dependence, that is, various values of R. In doing this I shall be enumerating varieties of basicness which may be used in the search for basic actions.

The literature on basic actions is rather recent. Arthur Danto is, of course, a pioneer in his articles "What We Can Do" and "Basic Actions." More recently Annette Baier has broadened the notion of basic action in much the

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same way that I have attempted to generalize the notion in the first chapter of this work. From the broad perspective Danto's notion of a basic action is but one of a variety of possible ways to attempt to pick out basic actions. Baier enumerates eight ways in which an action may be basic in her article "The Search for Basic Actions."^2 Goldman presents four notions of dependence such that an action could be said to be basic.3 Richard Taylor,4 Roderick Chisholm5 and H. A. Prichard6 have also contributed to the literature on basic actions by presenting notions of dependence relations which could be used to define basicness.

Some notions of basicness in this chapter are relations, the relata of which are numerically diverse actions. Contrast this with the treatment of basicness as a conceptual

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^3Goldman, Theory of Human Action, p. 32.

^4Richard Taylor, "Thought and Purpose" reprinted in Brand, op. cit.


category. The dependence relation in the latter case is be-
tween ways of conceiving of one and the same action; as
such, the dependence relation is an intensional relation.
As a general rule, those who take the identity thesis will
treat basicness as an intensional dependence relation.

In this chapter I will attempt to uncover those notions
of basic actions where what turns out to be basic will be
described as mere bodily movements. The underlying presup-
position here, in Goldman's terms, is that

A person's action often has far-reaching
effects in the world, but whatever one
does in the world at large must come, in
one way or another, from one's body, es-
pecially from the movements of one's body.
Thus, there is a central role that bodily
acts play vis-a-vis our acts in general,
and this special role is intended to be
captured by the phrase "basic acts." 7

Section One - Danto's Causal Basicness

Arthur C. Danto presents a relation of causal depend-
ence which can be used to pick out basic actions—causally
basic actions.

If there are any actions at all, there
must be two distinct kinds of actions:
those performed by an individual M, which
he may be said to have caused to happen;
and those actions, also performed by M,

7Goldman, A Theory of Human Action, p. 18.
which he cannot be said to have caused
to happen. The latter I shall desig-
nate as basic actions. 8

One of Danto's central arguments is that unless there are
basic actions, there could not be any actions at all of the
sort described by "causing something to happen."

For suppose every action were a case of
the agent causing something to happen.
This means, each time he does a, he must
independently do b, which causes a to
happen. But then, in order to do b, he
must first independently do c, which
causes b to happen....This quickly en-
tails that the agent could perform no
action at all. If, accordingly, there
are any actions at all of the sort de-
scribed by "causing something to hap-
pen," there must be actions which are
not caused to happen by the man who
performs them. And these are basic
actions. 9

Danto's definition for a basic action is this: A is a
basic action if and only if (1) A is an action, and (2) when-
ever S performs A, there is no other action A' performed by
S such that A is caused by A'. The value of R here is "is
cauised by." A is at the "bottom" of the hierarchy just in
case there is no other action performed by S such that A is
cauised by it.

B. Criticisms of Danto's Definition

For Danto, one's repertoire of basic actions is

8A. C. Danto, "Basic Actions," reprinted in Brand,
op. cit., p. 256.

9Ibid., p. 261.
determined by one's physical condition. Normal persons, say, have repertoire, R. Abnormal persons may be able to perform a basic action which is not included in R or cannot perform a basic action which is so included. Paralytics are abnormal in the latter sense; "Anyone who can dilate his pupils 'at will,' i.e., without performing some action which causes them to dilate"¹⁰ is abnormal in the former sense. Danto claims that a man's repertoire of basic actions must be performed with parts of oneself although "there are parts with which he cannot perform basic actions: fingernails, hair, teeth, not to mention the interior organs."¹¹

It would appear that the repertoire of basic actions could all be described, for Danto, in much the same way as Goldman's sample list of basic acts. Yet, given Danto's definition, actions can be picked out as being basic which would not fall in any such list of mere bodily variations, or movements (the repertoire which varies with physical abnormalities). Either Danto must give up his definition of basic actions or give up a limitation of basic acts to bodily movements such as pupil dilation. Certain actions performed by S which are not caused by other actions performed by S need not be bodily movements. Goldman considers


¹¹Ibid., p. 117.
an act, S's act of killing George.

Suppose that this act is not caused by any other act of S....Then according to Danto's definition, S's killing George is a basic action. But this sort of action is not the sort we want to classify as a basic action.\(^{12}\)

If we are to maintain the criterion that basic actions are to be bodily movements which are picked out, by a notion of basicness, Danto's notion of basicness, i.e. causal basicness, will not work. It can be used to pick out actions which are not bodily movements.

One might attempt to support Danto by claiming that such actions as S's killing George are never causally basic. In fact, they are always caused by some action described in kinematic-body terms (e.g., moving the trigger finger). It is at this point that an important distinction could be slurred— that between action A's consisting in action A' and action A's being caused by A'.

One must distinguish between S's killing George consisting in S's moving the trigger finger (among other things) and S's killing George being caused by S's moving the trigger finger. Imagine the following causally related sequence of events: S moves the trigger finger, the gun goes off, the bullet enters the head of George, George dies. S's act of killing George is not itself part of the causal

sequence but consists in the entire causal sequence. If action A consists in action A', it is never the case that A causes or is caused by A'. And if A causes or is caused by A' it is never the case that A consists in A'.

Now an action A can consist in action A' causing event E. This state of affairs must be contrasted with action A being caused by action A'. In both cases one can talk of A' being a basic action. But in the first case R is "consists in" and in the second case R "is caused by." Unfortunately, the latter R, which is Danto's, does not allow bodily movements as the only candidates for direct doings. The central criticism of Danto presented by Baier and Goldman involves the presupposition that Danto wants to select only mere bodily movements as basic.\textsuperscript{13} Danto's claims about the variation of one's basic action repertoire with physical abnormalities suggest this.

One final point should be made here. Problems in the metaphysics of behavior relevant to this dissertation are problems involving the nature of referents (where there are referents) of pairs of collateral action descriptions. When Danto discusses basic actions, he has in mind a wider range of actions than collateral actions. Collateral actions are referents of collateral action descriptions, and collateral

\textsuperscript{13}Baier, op. cit., p. 166.
action descriptions are those used to truly describe an agent at a particular time. They are descriptions of the agent's peripheral behavior involving not more than one topographical area of the body. (See Chapter I, Section Two) Even assuming that there are numerically diverse referents of a set of collateral action descriptions (and that is doubtful), it is even more implausible that such contemporaneous items of behavior would be causally related.

Section Two - Goldman's Causal Dependence

Goldman presents his own dependence relation which he calls causal generation. Ironically, the relation is not a causal relation. The important relation between actions here is the relation "consists in."

Act-token A of agent S causally generates act-token A' of agent S only if (a) A causes E, and (b) A' consists in S's causing E.\textsuperscript{14}

Before discussing causal generation in particular, it would be wise to discuss level generation of which causal generation is a species. "'Level generation' is a relation holding between ordered pairs of act-tokens of the same agent."\textsuperscript{15}

\textsuperscript{14}Goldman, op. cit., p. 23.

\textsuperscript{15}Ibid., p. 21.
I have, in Chapter I, presented the notion of a hierarchy. A hierarchy is defined in terms of the classes of relata and asymmetric, irreflexive and transitive relations, $R$ relating members of these classes. If, in the presentation of a hierarchy, there is only one value of $R$, I shall call that hierarchy a **homogeneous** hierarchy. If, on the other hand, the hierarchy is defined with reference to several values of $R$, I shall call that a **heterogeneous hierarchy**. We shall see that it is very important that we distinguish between what is picked out as basic in a homogeneous hierarchy and what is picked out as basic in a heterogeneous hierarchy. Goldman presents the notion of an act-tree which is what I have called a heterogeneous hierarchy.

The term "level generation" has been chosen because I shall draw diagrams of act relationships in which generated acts are drawn above their corresponding acts. This will produce diagrams in which basic act-tokens are at the bottom of act-trees and nonbasic act-tokens at higher levels on the act-trees. As is suggested by these diagrams, level generation is intended to be an asymmetric, irreflexive, and transitive relation.\(^{16}\)

An example of a heterogeneous hierarchy is presented by Goldman.\(^{17}\)

Giving his opponent a heart attack

\(^{16}\)Ibid., p. 21.

\(^{17}\)Ibid., p. 31.
Checkmating his opponent
Moving his queen to
king-knight-seven
Moving his queen
Moving his hand

The R's in the above hierarchy are what I have hitherto called dependence relations. The hierarchy is heterogeneous because there are various values of R represented. Moving his hand is basic where basicness is defined with more than one value of R.

Now let's get back to Goldman's candidates for values of R. I have already presented Goldman's notion of causal generation. In causal generation one action, A', consists in another action, A, causing a particular effect, E. For example, if S's shooting the gun has the effect of George's dying and if this causal sequence is what S's killing George consists in, then S's shooting the gun causally generates S's killing George. S's killing George is dependent upon S's shooting the gun.

It should be noted that this notion of causal dependence need not, by itself, pick out a bodily movement which is basic. "The requirement that A not be causally generated by any other act is a necessary condition of its being a basic act, but it is not a sufficient condition."\(^{18}\) If

\(^{18}\text{Ibid.}, \text{p. 24.}\)
basicness is defined with reference to a heterogeneous hierarchy this is to be expected. It is possible for an action to be such that no other action causally generates it but yet that action not be basic. Goldman defines basicness with reference to a heterogeneous hierarchy admitting several values of R to pick out what is basic. More will be said about the mechanics of this later.

Section Three - Teleological Dependence

Sometimes we undertake certain actions in order to, or for the purpose of, undertaking another action. Chisholm presents a value of R such that action A, performed by an agent is a basic act if and only if the agent succeeds in making A happen in the way in which he intended, and there is no B, other than A, which he undertook for the purpose of making A happen.\(^{19}\) R here is: A is undertaken for the purpose of making B happen but not vice versa. A is teleologically basic only if there is no other action which was undertaken for the purpose of making A happen.

The same question can be raised about teleological dependence as was raised about Danto's causal dependence. We must ask whether or not bodily movements are picked out as

being basic. It is highly doubtful that what is teleologically basic will be actions described in terms of bodily movements. In fact, we could imagine a case in which an action which is not described in terms of bodily movements is done in order to perform a bodily movement. Baier gives the example of the gestalt lace-tier who ties his laces in order to move his hands.\(^{20}\) One of Baier's central criticisms of basic action theorists is that their definition of basic action does not fulfill the requirement that only bodily movements are selected by that definition. We can, of course, make such an internal criticism only if the basic action theorist is attempting to maintain that criterion. It is doubtful that Chisholm does. The reason we could criticize Danto on this point is that he seems, along with Goldman, to accept it that all basic actions are bodily movements (although the converse is not true). Goldman is exempt from the criticism that bodily movements are not picked out by any one of his notions of generation (dependence relation). Goldman's claim is not that each notion of generation is sufficient to pick out bodily movement as basic actions. That is, "the requirement that A not be causally generated by any other act is a necessary condition of its being a basic act, but it is not a sufficient

\(^{20}\)Baier, op. cit., p. 168.
The act of signalling, for example, is not a basic act even though it may not be causally generated by any other act. It is, according to Goldman, conventionally generated by other acts.\(^2^2\) (The notion of conventional generation will be presented shortly.) Basicness defined with reference to a heterogeneous hierarchy will be defined in terms of a set of dependence relations say, \(R_1\), \(R_2\) and \(R_3\). One could then claim that an action is basic only if it is not \(R_1\)-dependent and not \(R_2\)-dependent and not \(R_3\)-dependent. Goldman's various notions of generation are what I have called dependence relations.\(^2^3\)

Section Four - Conventional Dependence

The notions of conventional dependence are related to the increasing philosophical literature on constitutive rules and institutional facts. A necessary condition for the conventional dependence of one act upon another is the existence of rules, social practices and conventions. Goldman claims that the following pairs of actions\(^2^4\) are

\(^2^1\)Goldman, op. cit., p. 24.

\(^2^2\)Ibid., p. 24.

\(^2^3\)It should be noted that generation is merely the converse of dependence. \(A'\) generates \(A\) if and only if \(A'\) is dependent upon \(A\).

\(^2^4\)Goldman, op. cit., p. 25.
examples of actions which are related by conventional dependence. One could say that one action of a pair is more conventionally basic than another.

<table>
<thead>
<tr>
<th>Act A</th>
<th>Act A'</th>
</tr>
</thead>
<tbody>
<tr>
<td>S's extending his arm</td>
<td>S's signalling for a turn</td>
</tr>
<tr>
<td>out the car window</td>
<td></td>
</tr>
<tr>
<td>S's moving his queen</td>
<td>S's checkmating his opponent</td>
</tr>
<tr>
<td>to king-knight-seven</td>
<td></td>
</tr>
<tr>
<td>S's trying to save</td>
<td>S's doing his duty</td>
</tr>
<tr>
<td>Jones' life</td>
<td></td>
</tr>
<tr>
<td>S's breaking his promise</td>
<td>S's doing what he ought not to do</td>
</tr>
</tbody>
</table>

In each of these cases there is a rule, R, according to which S's performance of A justifies the further ascription of A' to S. In the first example there is the rule, "extending one's arm out the car window while driving counts as signalling for a turn." In the second example, the relevant rules are rules of chess: the rules stipulating what counts as checkmate and rules saying how the pieces can move. In the third example the rule is: "lifeguards, while on duty, are obliged to try to save the life of anyone in the water who calls for help." (It is imagined, in this example, that S is a lifeguard currently on duty, and that Jones has just called for help.) In the fourth example the rule is: "One should not break one's promises."\(^25\)

Special attention must be given to the **circumstances** accompanying act A. The heavy reliance on a *ceteris paribus* clause in the definition of conventional dependence is

\(^{25}\)Ibid., p. 25.
essential. John R. Searle, a philosopher prominent in the literature on institutional facts and constitutive rules, points out the importance of the *ceteris paribus* clause in any attempt to derive "ought" from "is." From premises such as

1. John utters the words "I hereby promise to pay you, Smith, five dollars," and
2. Under certain conditions $C$ any one who utters the words "I hereby promise to pay you, Smith, five dollars" promises to pay Smith five dollars and
3. conditions $C$ obtain,

Searle derives

4. Jones promised to pay Smith five dollars.

The claim that conditions $C$ obtain (or other things being equal) is the essential *ceteris paribus* clause.

Goldman's definition for conventional generation is the following:

Act-token $A$ of agent $S$ conventionally generates act token $A'$ of agent $S$ only if the performance of $A$ in circumstances $C$ (possibly null), together with a rule $R$ saying that $A$ done in $C$ counts as $A'$, guarantees the performance of $A'$.

The parallel between Goldman and Searle should be obvious. Searle's premise (2) is a rule saying that $A$ done

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in C counts as A'. Premise (3) is the ceteris paribus rider corresponding to Goldman's requirement that certain circumstances obtain.

If we are to continue the parallel, the "guarantees" of the Goldman formula is the logical entailment of the Searle example. But this is a relation between propositions about things, not a relation between things the propositions are about. The last phrase of the Goldman formula would be more perspicuous if one reads "logically entails that A' is performed" (instead of "guarantees the performance of A'").

The existence of institutional facts presumes the existence of certain human institutions. In Searle's terms,

It is only given the institution of marriage that certain forms of behavior constitute Mr. Smith's marrying Miss Jones. Similarly, it is only given the institution of baseball that certain movements by certain men constitute the Dodgers' beating the Giants 3 to 2 in eleven innings. And, at an even simpler level, it is only given the institution of money that I now have a five dollar bill in my hand. Take away the institution and all I have is a piece of paper with various gray and green markings.

Now, the identity theorist who claims that certain collateral action descriptions are co-referential would view conventional dependence as an intensional relation. He need

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29Searle, op. cit., p. 51.
not claim that institutional facts are anything other than brute facts. For example, he might claim that one action described in brute terms is just what is seen as an action described in institutional terms. Or the significance of an action described in brute terms is "________" where what goes in the "________" are, to use Searle's terms, "concepts which are backed by constitutive rules."30 One and the same action can be described brute-ly and institutionally.

Goldman, on the other hand, using the synonymy criterion for the numerical diversity of properties, and using the numerical diversity of properties as a criterion for the numerical diversity of actions, would claim that there are two actions for two exemplified action properties (for example, extending the arm and signalling). One action, A in circumstance C counts as a numerically diverse action, A'. The identity theorist, on the other hand, will want to claim here that "... counts as ______" is an intensional context. From the fact that this green paper counts as a five dollar bill, one cannot deduce "'this green paper' and 'a five dollar bill' are not co-referential." (Contrast this with 'is taller than.' Here one can deduce from "A is taller than B" that 'A' and 'B' are not co-referential. This is part of the logic of "is taller than." It is

30Ibid., p. 52.
logically necessary that if A is taller than B, then 'A' and 'B' are no co-referential. Where the consequent is in the material mode, one could say Nec: If A is taller than B then A ≠ B.

Since "counts as" is, for the identity theorist, an intensional relation, the identity theorist is not restricted from claiming that

a) The arm moving counts as a signal

and b) The arm moving and the signal are one and the same event.

Melden claims (as an identity theorist) that "while raising the arm" and "signalling" are different descriptions, a case of the former does not produce, but in appropriate circumstances is the very same thing as, a case of the latter.31

Section Five - Simple Dependence

Goldman presents a notion of simple generation which "is best characterized by contrast with causal generation and conventional generation."32 Goldman presents the following contrasts:


In contrast with causal generation, simple generation involves no causal connection between the generating act, A, and an effect, E. And unlike conventional generation, there are no rules involved in the relationship between A and A'. In simple generation the existence of certain circumstances, conjoined with the performance of A, ensures that the agent has performed A'. In other words, simple generation is like conventional generation minus the rules.... While conventional generation might be schematized as "A and R and C jointly imply A'", simple generation could be schematized as "A and C jointly imply A'".33

Goldman presents the following as examples of simple generation.

<table>
<thead>
<tr>
<th>Act A</th>
<th>Act A'</th>
</tr>
</thead>
<tbody>
<tr>
<td>S's jumping 6 feet 3 inches</td>
<td>S's outjumping George</td>
</tr>
<tr>
<td>S's asserting that P</td>
<td>S's contradicting his earlier statement</td>
</tr>
<tr>
<td>S's coming home after 12:00</td>
<td>S's breaking his promise</td>
</tr>
<tr>
<td>S's asserting that P</td>
<td>S's lying</td>
</tr>
<tr>
<td>S's dangling a line in the water34</td>
<td>S's fishing</td>
</tr>
</tbody>
</table>

Conventional generation involves a "counts-as" rule. Simple generation does not. There is, I think, less difference in the two notions than Goldman would have us think. First of all, both can be schematized as R and A and C jointly imply A'. The only difference is that R in

34Ibid., p. 27.
conventional generation is a rule stipulating "the sort of significance a certain act has within a game or institutional framework" and R in simple dependence is not that sort of rule. The rules in the case of simple dependence are true by definition. For instance, it follows by definition, according to Goldman that if S promised to do X, and failed to do X, then he has broken his promise. The difference is not the presence or absence of a rule but rather a difference in the kind of rule in "R and A and C jointly imply A'." In conventional dependence the rule is what I have called a "counts as" rule. It does not reflect logical necessity. In simple dependence, the rules are definitional in character reflecting a necessity which is a result of linguistic convention.

Section Six - Logical Dependence

Goldman's fourth and last notion of generation is what he calls "augmentation generation." We may simply call it logical dependence, a means of describing one action as logically basic. Once again Goldman presents examples.

<table>
<thead>
<tr>
<th>Act A</th>
<th>Act A'</th>
</tr>
</thead>
<tbody>
<tr>
<td>S's extending his arm</td>
<td>S's extending his arm out the car window</td>
</tr>
</tbody>
</table>

35Ibid., p. 27.
If a simple proposition about action A' entails a simple proposition about action A but not vice versa, A may be said to be logically basic.

It should be noted that bodily movements are not necessarily logically basic. It should also be noted that "... is logically basic to ______" is an intensional context, and we cannot assume (after collateral act descriptions are substituted) that the expressions cannot refer to one and the same behavioral item.

Logicians are presently attempting to devise ways of symbolizing action sentences in order to reflect the obvious entailments above. The quest here is to assign a logical form to every action sentence such that obvious implications can be accounted for given the rules of logical implication in that system. Donald Davidson, for instance, proposes to analyse action sentences by an ontological commitment to events.\footnote{Ibid., p. 28.} The logical forms of "John walked in the street"

\footnote{Donald Davidson, "The Logical Form of Action Sentences" in The Logic of Decision and Action, edited by Nicholas Rescher (University of Pittsburgh Press, 1967).}
and "John walked" must reflect the obvious implication of the latter from the former.

1. \( (\exists e) (Wje \cdot Pe \cdot Ies) \)

   For some event \( e \), John walks "in" \( e \) and \( e \) is past and \( e \) is located in the street.

2. \( (\exists e) Wje \)

   For some event \( e \), John walks "in" \( e \).

It should be noted that (1) entails (2); and this can be seen from the logical form of the action sentences.

On the other hand, one might symbolize the sentence, "John walked in the street" by treating walking-in-the-street as a complex property exemplified by John. One's rules of logical implication could here reflect the entailment that whatever exemplifies a complex property exemplifies that simple property.\(^{39}\) Goldman would not be adverse to this, it would seem, given his treatment of actions as universals exemplified by an agent. Charles Landesman claims that actions are universals, repeatable entities such that different persons can perform literally the same action.\(^{40}\)

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\(^{38}\)This example is from a rough draft of a paper entitled "Logical Form" presented by Gilbert Harmon at the Ohio State University.

\(^{39}\)Ibid.

One's logical form here reflects whether or not one takes a substance view of actions or a property view of actions. Davidson is well-known for the former (where actions are events with properties and agents "inhering" in them). Goldman would take the property view where an action event is the exemplification of an act type by an agent. Landesman would identify an action with the universal exemplified by an agent. For Landesman, actions are not Kim-events but rather the property or universal which is repeatable in Kim-events.

Hans Reichenbach views the substance/property distinction as being other than a distinction en re. The determination of an event is a matter of convention and so, then, is what is to count as an event property. 41

Action Seven - Part-Whole Dependence

Annette Baier presents several kinds of wholes of which actions can be said to be parts. In this section and Section Eight I will do little more than catalogue dependence relations that she has already presented. The following are varieties of part-whole dependence relations. The varieties are differentiated in terms of the variety of composition.

Temporal wholes. If I am filling in a spare hour, then my filling in a quarter of an hour chatting is a part of it.

Spatio-temporal wholes. If I am walking a mile to the post office then walking a quarter of a mile past the store on the way is part of it. If I am cleaning the house, cleaning the hall is part of it.

Procedural wholes, of many kinds. If I am dancing the sword dance, clapping my hands is part of it....Procedures are to some degree standardized, ritualized.

Positional wholes. If I am signalling the letter A with flags holding one flag above my head is part of it. If I am standing at attention, keeping my heels together is part of it.42

Section Eight - Some General Remarks

A. Extending the List

This catalogue could be extended by searching for more dependence relations such that notions of basicness could be defined in terms of these relations. For instance, Baier presents notions of genetic basicness, ease-basicness, and isolation basicness. An action is genetically basic if it was in the agent's learned repertoire before the others. An action is ease basic if it is now the easiest to do. An action is isolation basic if it is easiest to perform in

42Baier, op. cit., p. 169.
isolation from others. This is distinct from genetically
basic and ease-basic "since balancing may be for me now the
easiest part of cycling, but it is certainly not what was
learned first nor is it easier to balance without pedaling
than to pedal without balancing." 43

B. Selecting Basic Actions

Baier comes to some interesting conclusions about vari­
ows notions of basicness. She begins her inquiry with two
criteria for an adequate procedure for selecting basic ac­
tions.

(1) It selects a basic action whenever
there is any action.

(2) It selects only bodily movements
as basic. 44

As we have seen, these standards are not easy to ful­
fill. Goldman relies on a heterogeneous hierarchy, one
with four dependence relations, such that bodily movements
can be said to be basic and all actions can be generated
from basic actions.

If one can show that any action whatsoever is either a
bodily movement or is dependent upon some bodily movement
(or other) in a heterogeneous hierarchy, one has fulfilled
the standards. There are, I think, no homogeneous

43 Ibid., p. 169.
44 Ibid., p. 162.
hierarchies that can fulfill the standards. Baier's main criticism of basic action theorists is that no notion of basicness fulfills both standards. Once again it should be noted that this is only an internal criticism for those who accept the standards. It is not clear that all basic action theorists make any attempt to fulfill the second standard.

Goldman's dependence relations taken separately do not fulfill Baier's test of adequacy, and Goldman would not expect to do so. Together, however, these relations can generate (or relate) any action to a bodily movement.

Below are two examples of heterogeneous hierarchies presented by Goldman. Let 1 represent causal dependence; 2, conventional dependence; 3, simple dependence and 4, logical dependence. Each column contains a set of collateral action descriptions and the appropriate dependence relation is indicated by the number given in the above dictionary.

<table>
<thead>
<tr>
<th>Giving his opponent a heart attack</th>
<th>Complying with Mary's request</th>
</tr>
</thead>
<tbody>
<tr>
<td>Checkmating his opponent</td>
<td>Turning on the light</td>
</tr>
<tr>
<td>Moving his queen to king-knight-seven</td>
<td>Flipping the switch</td>
</tr>
<tr>
<td>Moving his queen upward</td>
<td>Moving his finger upward</td>
</tr>
<tr>
<td>Moving his hand</td>
<td>Moving his finger</td>
</tr>
</tbody>
</table>

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45Goldman, op. cit., p. 31.
C. Dependence Relations and the Numerical Diversity of Actions

One of the main questions raised at the beginning of this chapter is, "Are the dependence relations in question relations among numerically diverse collateral actions?" In this section I will confine myself to a discussion of Goldman's dependence relations. My justification for doing so is that Goldman, as opposed to other basic action theorists, is primarily concerned with collateral actions. It is the metaphysics of collateral actions that concerns us in this dissertation.

I have maintained that at least three of Goldman's dependence relations involve intensional contexts. They cannot be used to undermine the identity theory. Such relations need not be viewed as holding between numerically diverse items of behavior any more than "'Richard Nixon' has one more 'i' in it than 'the President'" can be used to deny that "the President" and "Richard Nixon" refer to one and the same individual. I have already argued that "...is logically dependent upon ______," "...is simply dependent upon ______," and "...is conventionally dependent upon ______" are intensional contexts. Causal dependence seems to be a relation which is different in kind from the other three. But I will argue that it too can be said to involve an intensional context. It will then follow...
that none of Goldman's dependence relations can be used to undermine the identity theory. Goldman's rejection of the identity theory cannot rest on an analysis of the dependence relations involved.

Let us take, as an example of causal dependence, the relation between moving his finger upward and flipping the switch. (See the hierarchy above.) The relation between moving his finger upward and flipping the switch, in the above example, is alleged by Goldman to be a relation between two separate behavioral items. But there is little in the relation as described by Goldman which should convince us that there are two distinct events involved. I will make my point by showing that causal dependence and the relation "consists in" used to define this notion of dependence can be viewed as involving a mere ascription of causal significance or content. To help the reader understand "causal significance" imagine the following: suppose we open up John's head and, with precise measuring instruments, detect a correlation between a neural variation or configuration called, "V" and John's utterance, "I love Mary." We could refer to one and the same neural variation with both "V" and "the cause of John's saying, 'I love Mary'". The latter can be said to express the causal significance or content of the neural event. Now the causal significance of the event of moving his finger upward may be, in a certain causal context, expressed by "flipping the switch."
But this fact could not be used to make the claim that "flipping the switch" and "moving his finger upward" refer to numerically distinct events. In fact, just the opposite is suggested.

Causal dependence turns out to be much closer to conventional dependence on this explication. One could say that in certain causal circumstances the performance of moving his finger upward counts as the flipping of the switch. I have already suggested that "under circumstances C,...counts as ______" is an intensional context. In conventional dependence, significance is ascribed with reference to an institutional context; in causal dependence, significance is ascribed with reference to a causal context.
CHAPTER VI

CONCEPTUAL BASICNESS AND MULTIPLE-LANGUAGE KINEMATICISM

Introduction

In mind/body metaphysics, identity theorists are, at times, confronted with the following question. If mental items and certain physical items are one and the same, how is it that the mentalistic ascriptions differ in meaning and modes of confirmation from ascriptions of physical attributes? The identity theorist may reply by giving an explanation of how there can be a dualism of languages but, at the same time a unity of reference. Two different kinds of classifications of expressions can have the same item or class of items as referents. The dualism of languages may even be said to reflect an epistemological dualism—two ways of viewing one and the same referent. A dualism of languages or a dualism of ways of viewing is compatible with an ontological monism of some sort.

In like manner, the K/A identity theorist may want to give an account of how there can be a multiplicity of
languages of peripheral behavior and yet a unity of reference for various levels of collateral action descriptions. The objects of reference here are K-items. Since more than two languages may be discovered, we may call the position in question, "multiple language kinematicism." The parallel theory in mind/body metaphysics is, of course, double-language materialism.

The K/A strong eliminativist can also benefit by an explanation of various languages of peripheral behavior. The strong eliminative kinematicist will maintain that the A-language(s) does(do) not consist of referential expressions. To make his position plausible, he may have to show just what the function of the A-language(s) is(are). Parallel to this, the strong eliminative materialist may deny that mentalistic expressions are referential, but he may still maintain that they have some interesting nonreferential role. (More will be said about the parallel between eliminative materialism and eliminative kinematicism in the next chapter.)

Now in order to account for a multiplicity of languages, we must do some work relevant to issues in the philosophy of language. I make no apologies for this. The metaphysics of behavior is just as inseparable from linguistic issues as mind/body metaphysics is.

In this chapter it will be shown that the notion of conceptual basicness can be used to stratify various
languages of peripheral behavior. By "language" I mean a class of predicates or descriptions which can be demarcated in terms of very general roles. The expressions most relevant to the present inquiry are sets of collateral action descriptions. I will be looking for ways to typify and stratify various members of sets of descriptions which appear to refer to actions. The tools used in this enterprise will be various species of conceptual basicness. Before explicating "conceptual basicness," I shall first explicate "concept."

I shall attempt to explicate 'concept' in terms of the Oxonian movement. It is this movement which forms the historical background for the notion of basicness in this chapter. 'Concept' is a word which has various uses in various theories of meaning. It is theory-laden. When meaning is viewed as a relation between word and referent, 'concept' may be used to refer to a psychological referent or some entity called a meaning. But the Oxonian use of the term is something very different. Since this chapter deals with an Oxonian notion of 'concept,' it is important that we get clear, as best we can, about Oxonian concepts. Ryle attempts to present the view that I am calling the Oxonian view in his article, "Ordinary Language."

Our forefathers, at one time, talked... of the concepts or ideas corresponding to expressions. This, in many ways was
a convenient idiom, and one which in most situations we do well to retain. It had the drawback, though, that it encouraged people to start Platonic or Lockean hares about the status and provenance of these concepts or ideas.¹

Ryle recommends the following replacement of concept idioms: instead of talking about the concept of X, it would be best to talk about the ordinary (i.e. stock) use of the expression 'X.'

A synonym for 'stock' here is 'ordinary.' Since this theory of language is within the pragmatic tradition where words are tools for performing activities, the term 'ordinary' has much the same role as in a discussion of any ordinary use of a tool. The ordinary use of a saw is to cut wood. Cutting bread with a saw is not a standard or ordinary use. The ordinary use of a hoe is to hoe a garden; a nonstandard use would be its use as an instrument of capital punishment.

A synonym for 'use' here is 'role.' A word role is not a word any more than the Hamlet role is Richard Chamberlain or Dame Judith Anderson. The phrase 'language game' has been used to talk about standard roles. So also has the phrase 'speech act.' There are some very general roles such as warning, recommending, identifying, referring, predicating, explaining and questioning.

When talking about conceptual system, the Oxonian will be talking about an interconnection or interdependence of expression roles. For instance, Strawson discusses the interdependence of identificatory roles of certain classes of predicates.

One notion of the interdependence of roles is that of contextual implication or presupposition. Here the use of an expression or a sentence can be said to imply certain things, say beliefs of the sentence-user. The successful asserting use of "All of John's children are in bed" requires, in some sense, that the speaker believe that John have children. The successful lying use of "All of John's children are in bed," does not, of course, require that the speaker believe that John have children. What is contextually implied by the standard use of 'X' are the truth conditions of a claim about the successful standard use of 'X.' There are, of course, several categories of truth conditions for the successful standard use of 'X.' In this chapter I shall be describing conceptual dependence in terms of just one category—that wherein other standard uses are

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2D. S. Shwayder takes somewhat the same view on the nature of contextual implication or presupposition. For other views see P. H. Nowell Smith, Ethics, Chap. 6; P. F. Strawson, Introduction to Logic, Chap. 6; I. Hungerland "Contextual Implication," Inquiry, 1960, pp. 211-58. Most recently there is Fred Dretske, Seeing and Knowing, Chap. 2.
required for the successful standard use of 'X.' Let us first survey the kinds of conditions for the successful standard use of some expression.

Section One - Success Conditions for Speech Acts

Below are nine pairs of sentences. Imagine a speaker's uttering these sentences in close juxtaposition during the course of a conversation.

1. (a) There is Harry coming toward us...
   (b) But I do not believe that Harry is coming toward us.

2. (a) There is Harry coming toward us...
   (b) No one could ever possibly identify things like Harry and no one ever will.

3. (a) There is Harry coming toward us...
   (b) I have never learned to construct meaningful sentences.

4. (a) There is Harry coming toward us...
   (b) I cannot describe things like Harry.

5. (a) There is Harry coming toward us...
   (b) I cannot say 'Harry.'

6. (a) There is Harry coming toward us...
   (b) I was unable to learn to use the word 'Harry' in meaningful sentences.
7. (a) There is Harry coming toward us...
   (b) I am unable to make grammatically well-formed sentences.

8. (a) There is Harry coming toward us...
   (b) I am incapable of discerning anything from anything else in my visual environment.

9. (a) There is Harry coming toward us...
   (b) I have no concept of what it means for something to come towards someone.

There is a sense of requiredness such that the use of certain sentences or expressions in them requires that certain things be the case. The oddity of the above juxtaposition is that the second sentence in each pair is the denial of a success condition for the performance of the linguistic act—the linguistic act of which the first sentence of the pair is a constituent.

All acts have success conditions. Non linguistic acts have success conditions too. Suppose someone utters the following pairs of sentences in close juxtaposition.

10. John scored a point by kicking the ball...But there is no ball.
11. John scored a point by kicking the ball...But there is no game going on.
12. John scored a point by kicking the ball...But there are no rules defining the practice of scoring a point in this game.
The oddity in the above juxtapositions is a result of a denial of a condition for the successful performance of the act in question.

In (10-12) the second sentence in each pair is the denial of a truth condition for the successful performance of scoring a point by kicking a ball. In (1-9) there is the denial of the truth conditions for successfully saying, claiming, or asserting that Harry is coming toward us. Fred Dretske calls the latter, 'utterance implications.'

If S asserts that so-and-so is the case, we may distinguish two sorts of implication. There is, first, what we might call the truth implications: Q is a truth implication of S's statement if S's statement would not be true unless Q were true. Secondly, there are the utterance implications: Q is an utterance implication of S's statement if S would not, normally, have made the statement unless Q were true. This distinction is simply an expression of the difference we feel between 'what he said implies' and 'his saying that implies.'

Let us look at sentence juxtapositions (1-9). If we were to classify or typify the truth conditions of the linguistic acts therein, it would be safe to say that some appear to be pedagogic requirements. For instance, (3) and (6) are pedagogic requirements for using the sentence, "Harry is coming toward us" in a successful assertion. (1)

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involves a truth condition containing a **propositional attitude**: that of belief.\(^4\) (2) and (4) involve a success condition exhibiting the requirement for other sorts of **speech acts** such as identifying in (2) and describing in (4). (3), (5), (6), and (7) involve a denial of **verbal and/or grammatical capacities** while (9) involves a denial of a capacity for concept formation. (8) is primarily **cognitive** in character.

It is obvious that these are not mutually exclusive categories. For example, any requirement of linguistic and grammatical capacities will also involve the pedagogic requirement of having to learn such capacities.

We could add another kind of success condition—a criteriological one. Imagine the following juxtaposition

10. (a) There is Harry coming toward us...
(b) There are no logically adequate criteria for ascribing 'coming toward us' to Harry.

The literature on logically adequate criteria is highly controversial; I shall be discussing criteria in the next chapter.

If having a concept of X is having the capacity to

\(^4\)Dretske attempts to show, for instance, that a belief may be an utterance implication of a report of seeing but not an implication of the report itself. "If one confuses truth implications with utterance implications one will also tend to suppose that seeing a bus involves, in some essential way, the belief that a bus is seen." op. cit., p. 36.
perform linguistic acts with 'X,' then the various sorts of conditions enumerated above are conditions for having a concept. There are conditions for the successful performance of a linguistic act using 'X.' We will call the whole family of types of conditions for the successful performance of a linguistic act, speech act requirements.

In this chapter, I will be discussing a hierarchy where the dependence relations are between standard uses of 'X' where 'X' stands for various predicates used to identify and explain behavior. The various relata of the hierarchies in this chapter will be either (a) different standard uses of one and the same predicate or (b) one standard use of different predicates. An example of the former would be the recommending use of 'X' and the descriptive use of 'X.' An example of the latter would be the identificatory use of 'X' and the identificatory use of 'Y.' I will, then, be dealing primarily with a special species of speech act requirements—requirements involving other speech acts. This species is best reflected in what makes (2) and (4) logically odd juxtapositions.

Section Two - Success Conditions and Transcendental Arguments

The whole family of success conditions can be used in transcendental arguments, be they pedagogic, proposition
attitudinal, speech act, verbal and/or grammatical, concept-genetic or cognitive requirements. A transcendental argu-
ment involves as an essential premise, a statement of a success condition for having a concept. Where a concept of X is no more than the standard use of 'X,' one is discussing the success conditions for the standard use of 'X.' Usually the point of a transcendental argument is to show that a necessary condition for having a concept used in proposition P is a sufficient condition for the falsehood of P. As can be seen from the kinds of success conditions, various theories can be used as premises in transcendental arguments. They might be pedagogic theories, concept genesis theories, cognitive theories, and so on. Let us call these theories or theses SCT's (for success condition theories). Suppose that one SCT is this: In order to have the concept of pain it must be logically possible for one person to know of another that he is in pain. Let us suppose a skeptic claims that P: It is not logically possible for one person to know of another that he is in pain. Given the truth of the SCT it would appear that a necessary condition for 'pain' to have a stock use in P or any other proposition is a sufficient condition for P's being false.5

One could use a transcendental argument by using an

SCT of the cognitive, concept genetic variety. Suppose, for instance, that one's SCT for the concept of cause is this: A necessary condition for having the concept of cause is that the mind "causes us to make a transition from an object to its usual attendant, and from the impression of one to the lively idea of another." Let P be:

I am aware of the causal principle which resides in the external object.

Given the truth of the SCT, a necessary condition for having the causal principle mentioned in P is a sufficient condition for the falsehood of P. (Transcendental arguments can be used by sceptics and non sceptics alike.) Hume claims that "we either contradict ourselves or talk without meaning." Given Hume's SCT, we are faced with the following dilemma in accepting P. P is meaningfully asserted or it is not. If it is meaningfully asserted, a necessary condition for its being meaningfully asserted is a sufficient condition for its being false. If it is not meaningfully asserted, it is neither true nor false. So P is, given the truth of Hume's SCT, either false or neither true nor false. Now it takes little logical sophistication to see here that

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Ibid., p. 267.
a transcendental argument is only as sound as its SCT; and it is unfortunate that recent uses of transcendental arguments are devoid of adequate support of their SCT's. That is, in arguments of the following form, very little support is given to the second premise.

1. If SCT then P is either false or neither true nor false.

2. SCT

P is either false or neither true nor false.

It should be noted that the above conclusions given some instantiation of P is not a logically necessary truth. Its truth is a function of the truth of some SCT and the denial of an SCT is never a contradiction.\(^8\) Necessarily (1) and (2) imply the conclusion but neither (1) nor (2) nor the conclusion are necessary truths. We should not confuse contingent truths about concepts with conceptual truths.

Hume's SCT is a cognitive theory. That is, his SCT's come from a theory of perception in which the genesis of concepts is a function of atomic or simple cognitions being combined or operated upon in certain ways.

Some of Strawson's central arguments, in his article on

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\(^8\)This we shall see is contested by Toulmin who treats a subset of SCT's of the form: (A necessary condition for applying X is that we have logically adequate criteria \(C_1, C_2\ldots C_n\)) as truths of definition.
persons, rely on a theory about the genetic conditions for successfully ascribing P-predicates. Suppose an other-minds sceptic claims P: "One can never be sure that ascriptions of P-predicates to others are correct." Let us also suppose that a necessary condition for learning the standard use of the P-predicates alluded to in P is a sufficient condition for P's being false. Such transcendental arguments are only as good as the truth of the concept—genetic theory that supports them. Suppose, for instance, that one maintained that a necessary condition for having any concept is that there be purple concept-generating centaurs which skinny-dip in Lake Erie. Let us suppose that a purple-concept-generating-skinny-dip skeptic claims P: There are no purple centaurs which skinny dip in Lake Erie. A necessary condition for P's being meaningful is a sufficient condition for its being false. It is either false or neither true nor false, given the SCT.

It should be noted that some SCT's provide necessary conditions for the use of any word or expression, some for the meaningful use of any word or expression, and some for the use of only a particular family of expressions or the meaningful use of only a particular family of expressions (such as P or M-predicates).
In this section I will discuss some dependence relations which could be used to define various notions of conceptual basicness. Conceptual basicness, as all notions of basicness, can be used to describe a certain level of a hierarchy defined by some dependence relation. (See Chapter I, Section Two) Of all the success conditions for linguistic acts described earlier in this chapter, those relevant to the present section are those such that the successful use of some class of expression requires the use of another class of expressions. The very rough form of the dependence relations in question here is this:

The \textbf{(adverb)} use of expressions of type \underline{____} is required for the \textbf{(adverb)} use of expressions of type \underline{____}, but not vice versa.

Various adverbs such as "identificatory," "explanatory" and "descriptive" can be placed in the adverb-slot of the form. And various types of descriptions such as our A and K types (or subclasses of A-descriptions) may be mentioned in the type slots. In a sense, what we are after in this chapter is a presentation of how the use of, say, a particular class of A-descriptions may be parasitic on the use of another class of peripheral behavior description, e.g., K-descriptions.
One position in ethics involves the claim that the role of certain terms such as 'good' is not to describe what there is; rather, they have the parasitic standard function of recommending something that can be described in naturalistic terms. Some cognitivists in ethics would want to claim that the term 'good' itself may have more than one standard function. It may be used both to recommend and to describe; and the standard function of recommending with "good" is dependent on the descriptive use of "good."

One could hold the thesis that one descriptive use of a term is required in order to have another descriptive use of that same term. Or one use of a term or expression could require the same standard function of a different term or expression.

In Chapter II, Section Six, it was indicated that it is a controversial issue whether or not one treats mentalistic expressions and mental act descriptions as a subclass of A-descriptions. (A-descriptions are nonkinematic descriptions of peripheral behavior.) Let us assume, for the sake of explication, that expressions such as "hoping to go to the store," "intends to go to the store," and "is trying to go to the store" are descriptions of peripheral behavior. Now one way that intentional actions can be analysed is to treat intentional action expressions as having parasitic jobs, but nevertheless coreferential roles with respect to the jobs performed with certain other peripheral behavior.
descriptions. On the other hand, intentional action expressions can be treated as having no referential role at all; however, the nonreferential jobs performed with intentional action expressions may be treated as parasitic upon jobs performed with descriptions of "overt" behavior. (Descriptions of "overt" behavior descriptions may be assumed to be K-descriptions or some subclass of A-descriptions.) Where overt behavior descriptions are K-descriptions, the position last mentioned would be a strong eliminative kinematicism.

Shwayder attempts to show that there is a sense in which the concept of mental action is parasitic on overt behavior.

That is very strongly suggested by the fact that natural verbal identifications of mental acts, e.g., in terms of 'trying,' would also involve the use of language which is already employed for identifying overt action. In doing a mental act of trying, the animal could not be merely trying; he would always have to be trying to do something. Actually, the only plausible explanation of mental action I am familiar with would have it that mental action involves a suppression of those overt bodily movements that would constitute (overt) action. Mental action would therefore be secondary to (overt) action both in order of explanation and in the genetic order of the acquisition of the capacity by observed animals.9

The function of the prefix of 'trying' or 'meant to' before action verbs is "among other things, to nullify the

9Shwayder, op. cit., p. 59.
suggestion that the act succeeded."\textsuperscript{10} As a result, "trying is wrongly thought of as a second, shadowy kind of mental action. I [Shwayder] maintain that the mental element whatever it is, is nothing like action."\textsuperscript{11} "Trying...seems to be only an illusory kind of deed, created verbally out of the necessary possibility that any ordinary kind of action might fail."\textsuperscript{12}

In a sense, the function of the 'try to' locution is to add to the description or explanation of the act, indicating that it might not succeed. It should be noted that 'trying,' for Shwayder, has a second order or derivative function requiring a first order descriptive function of action predicates (in nonintentional terms). It appears that the latter is the language of overt behavior. In fact, the mental act of \textit{trying} is derivative in two senses for Shwayder. "Mental action would therefore be secondary to (overt) action both in order of explanation and in the genetic order of the acquisition of capacity by observed animals."\textsuperscript{13} In the following section I will try to unravel what 'order of explana-

\textsuperscript{10}Ibid., p. 61.
\textsuperscript{11}Ibid., p. 60.
\textsuperscript{12}Ibid., p. 59.
\textsuperscript{13}Ibid., p. 59.
tion' means in terms of speech act dependence.

A. Explanatory Dependence in a Speech Act Hierarchy

The asymmetric, irreflexive, transitive relation used to define explanatory dependence (where the relata are Oxonian concepts) could be the following:

Term $T_1$ used in sentence $S_1$ is explanatory dependent with respect to term $T_2$ of sentence $S_2$ iff the explanatory use of $T_2$ in sentence $S_2$ is required for the explanatory use of $T_1$ in $S_1$, but not vice versa.

Let us suppose we are, to use Shwayder's example, explaining overt behavior by using the term 'trying.' The explanatory or descriptive use of 'trying' is dependent upon the descriptive use of overt action predicates. Not only is the concept of mental action secondary to the concept of overt action in order of explanation but in the genetic order of the acquisition of the capacity to explain behavior.

B. Identifiability Dependence in a Speech Act Hierarchy

A good example of a species of dependence in a speech act hierarchy is Strawson's identifiability dependence. Making an identifying reference to a particular with 'X' may require the making of an identifying reference to another particular with 'Y.' Or the use of 'X' to enable the
hearer to identify X's depends upon the use of 'Y' to enable the hearer to identify Y's. Speech act dependence is the dependence among standard functions for expressions.

Among the expressions which we, as speakers, use to make references to particulars are some of which a standard function is, in the circumstances of their use, to enable a hearer to identify the particular which is being referred to.\textsuperscript{14}

Strawson uses identifiability dependence to define 'basic.' "The meaning given to the term 'basic' is strictly in terms of particular-identification."\textsuperscript{15}

The assertion that material bodies are basic particulars in our actual conceptual scheme, then, is now to be understood as the assertion that, as things are, identifying thought about particulars other than material bodies rests in general on identifying thought about material bodies, but not vice versa.\textsuperscript{16}

Section Four - Speech Acts and Cognitive Capacities

In this chapter relata in the dependence hierarchies are standard functions of 'X' where 'X' stands for a word or a grammatically well-formed string of words. The required-


\textsuperscript{15}Ibid., p. 50.

\textsuperscript{16}Ibid., p. 51.
ness or dependence involved are the necessary conditions for a successful linguistic act. They may be classified as cognitive, propositional attitudinal, conceptual genetic, verbal and/or linguistic, speech act and pedagogic success conditions. I dealt primarily with certain speech acts being success conditions for other speech acts in this chapter.

It would appear, at first, that the relata in the hierarchies are mere linguistic capacities, capacities for the use of words. But, insofar as linguistic capacities are required for cognitive capacities, certain of the former may be used as an index to certain of the latter. In this chapter the term 'concept' was used to talk about the standard function of a word; but for the Neokantian, a concept is more than that. Some terms play an important role in explanatory and cognitive activity; being able to use 'X' in an explanatory act may be required for discerning X's. One may go so far as to claim that the success conditions for an explanatory act using 'X' will also include the success conditions for discernment of X's.

More will be said about cognition later, but first it will be important to get clear on how success conditions for ascribing the language of behavior can be used to stratify that language. First of all, by 'language of behavior' I mean all of the various different action descriptions. This involves, as I am using the term, mere bodily movement descriptions, as well as descriptions using mentalistic
intentional action language such as 'trying,' 'hoping,' and 'intending.'

Shwayder's method is to characterize strata of behavior by specifying kinds of conditions of success which are definitive of a class of behavioral descriptions. This involves classifying, in terms of kinds of success conditions, possible reports on the behavior of animals. The job is to uncover the kinds of conditions presupposed by behavioral reports.

Any true behavioural report which implies that the item of behavior in question is at a certain level of behavior will also imply that conditions of every kind definitive of that level are satisfied. Thus 'connecting an electric circuit' is an identification of action at the level of proficient behavior, and a report given in these terms will imply (inter alia) that the observed animal be in possession of certain equipment and have acquired certain skills including the ability to connect electric circuits.\textsuperscript{17}

Shwayder defines five categories of behavior the ultimate genus of which is animal movement. The various species descending the Porphyry-like tree are action (perceptually guided behavior), proficient behavior (learned behavior), conformative behavior (social behavior) and conventional behavior.

First of all, animal movement ascriptions usually require "no more than that the observer should be able to see \textsuperscript{17}\textsuperscript{17}Shwayder, op. cit., p. 205.
the creature stirring and then be able to describe these movements in some one or other familiar way, often, as we have noted, in language borrowed from our act identificatory stock.  

Second, Shwayder defines behavior. "Behaviour, which is the genus of action, was in its prior turn defined as a species of animal movement, for which (as the observer sees) the animal might (but need not) be held responsible." The definition makes an appeal to the conceptualizing observer's "knowledge about the species, complemented by whatever special facts he may know about the particular animal, especially as regards prior training and immediate preparation."  

Third, "action is to be defined as a kind of behavior involving the factor of purpose. Purpose is present in behaviour if and only if the movements constituting the behavior might be explained by the animal's knowledge or belief that certain (what we would call) conditions of success are satisfied. What the animal knows or believes—or, in Aristotle's words, 'perceives, conceives, or imagines'—are reasons or mistaken reasons for the act.  

It should be noted that the successful ascription of purpose itself implies that "the observer could see that the constitutive movements could be explained by reference to the animal's awareness of something or other." 22 Shwayder aims to show that "purpose is present and an act done only if the constitutive movements might be explained by reference to the animal's knowledge or beliefs." 23 "The mental element of purpose is brought into our thinking in connection with a certain kind of explanatory factor—awareness of the world." 24

Descending still further down the tree from the ultimate genus, proficient behavior ascriptions imply skill or know-how-to.

Fifth, conformative behavior involves being conformed to or in violation of rules.

Finally, conventional behavior is a species of conformative behavior "where conformity to rules enables the agent to indicate all possible circumstances in which the act might fail." 25 To be involved in a practice underlain by rules "an agent must be capable of knowing that he is

22 Ibid., p. 68.
23 Ibid., p. 69.
24 Ibid., p. 69.
25 Ibid., p. 303.
engaged in some practice underlain by those rules, and, a fortiori be sometimes capable of knowing what he is doing when engaged in the activity, i.e., be capable of self-consciousness."^26

My goal here is not to present a justification for Shwayder's definitions per genus et differentiam of behavior; nor is my goal to thoroughly present and explicate each of his definitions. What is important for the purposes of this chapter is Shwayder's methodology and purposes for delimiting these behavioral categories.

The programme of definitions is designed to display an increasing behavioural sophistication in the imagined observed animal, by considering what the observer must take note of in the movements, situation, and circumstances of the observed creature in order to be warranted in his reports. It is the conceptualizing observer who is the direct subject of investigation.\footnote{Ibid., p. 202.}

The Kantian ring to all this is that these definitions turn out to reflect cognitive categories, or in Shwayder's terms "fundamental cruces in our (for the most part) common ways of thinking and talking about animal behaviour."\footnote{Ibid., p. 204.} As opposed to psychology, which is interested in animal behavior qua animal behavior, the descriptive metaphysician's

\footnote{Ibid., p. 266.}
concern "is a second-order one, being initially concentrated upon our ways of thinking and talking about behavioural phenomena." If one were to claim that Shwayder is doing psychology rather than philosophy, the indictment would be deflected toward much of the psychological literature "which seems little better than bad philosophy of mind."

Shwayder calls his position **conceptual epiphenomenalism**. What is being studied is the conceptualizing observer and his categories for interpreting behavior. One could even say here that Shwayder is classifying the behavioral language in terms of a hierarchy of standard functions for the use of the behavioral language of any group of language users. In order to interpret behavior as conventional behavior, one must be able to interpret it as conformative behavior. In order to interpret it as conformative behavior, one must be able to interpret it as proficient behavior. In order to interpret behavior as proficient behavior, one must be able to interpret it as action. Shwayder's position seems to be Kantian in flavor. By that I mean that seeing is concept-laden. There is no cognition of behavior without conceptual interpretation. This notion lies behind the explication of 'conceptual epiphenomenon.' The cornerstone of Shwayder's entire book is the following paragraph. Here is

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29 Ibid., p. 15.

30 Ibid., p. 16.
one of the few places that we get an idea of what a con-
ceptual epiphenomenon is.

My theory represents an attempt to ex-
plain and understand what it is to see
certain things in the movements of animate
creatures. What we thus see and report
upon might be styled as a kind of epi-
phenomenon with respect to animal move-
ments and situational elements. They
are phenomena which we see as residing
in the movements only because we have
these ways of thinking about the move-
ments. You can, if you need a name,
categorize my account as conceptual
epiphenomenalism. 31

It should be noted that what we can see in movements
depends upon ways of thinking about the animal movements.
Here the transition is from mere speech act dependence to
cognitive dependence, the Kantian flavor of the role of con-
cepts is displayed again. For the Kantian, the hierarchy of
conceptual dependence, even when a concept of X is the stock
use of 'X,' has cognitive significance.

Section Five - Conceptual Dependence and Multiple
Language Kinematicism

The kinematicist, whether he is a reductive kinemat-
icist or an eliminative kinematicist will, as his materi-
alist counterpart, attempt to show that a multiplicity of
ways of conceiving of X or a multiplicity of linguistic

31Ibid., p. 13.
functions of 'X' does not commit one to a multiplicity of kinds of things en re. An epistemological, conceptual or linguistic pluralism is not pluralism en re.

Shwayder's metaphysics of action is, I think a K/A conservative but strong eliminative position. What is ultimately real or what exists are bodily movements. A-terms do not have a referring function. Their job is to reflect how the bodily movements can be conceived given the fundamental cruces in our way of thinking. The explanation of the multiplicity of our ways of thinking is Kantian. But, ontologically, Shwayder is not committed to a distinction en re "beneath" every distinction in our conceptual system. To hold the latter one would be very close to, if not within, the bounds of idealism. Idealists view distinctions en concepi as distinctions en re. For Shwayder, even though there may be a multiplicity in the conception of actions, "we can be sure that usually there is only one act done, for action is individuated with respect to the actual movements made."

There is a parallel here between possible kinematicist positions and various materialist positions. Some materialists have attempted to turn an alleged ontological pluralism into linguistic, conceptual, attributive or epistemological pluralisms. For example, for Feigl, there are two sorts of irreducible knowledge but one kind of known which is material. What the kinematicist may do in the K/A
problem is to categorize a multiplicity of behavioral expression classes with reference to the kinds of contextually implied conditions of behavioral judgments in which the expressions are used; and with this multiplicity of languages he could argue that a conceptual pluralism is compatible with an ontological monism.

Shwayder's conceptual epiphenomenalism is a multiple language theory of behavior. His book, The Stratification of Behavior, would best be titled The Stratification of Behavioral Languages or Levels of Conceptual Sophistication Reflected in Viewers of Bodily Movements.

In this chapter I have used the notion of conceptual basicness to explicate ways in which various expressions may be said to be basic. An attempt was made to show how various notions of conceptual basicness could be used to stratify the languages of behavior. Such is the task of the descriptive metaphysician of behavior. I exhibited a particular descriptive metaphysics of behavior, that of D. S. Shwayder. Finally, I suggested that what apparently is a mere descriptive metaphysics of behavior turns out to be, in Shwayder's case, a multiple language kinematicism. Descriptive metaphysics is merely a way of stratifying expressions by the conditions of their uses and is closer to epistemology or a certain branch of pragmatics than to hard core ontology.
CHAPTER VII

K/A ELIMINATIVE KINEMATICISM AND
K/A FUNCTIONALISM

Introduction

At the end of Chapter VI an attempt was made to describe a multiple language kinematicism. A parallel was drawn between multiple language kinematicism and double language materialism. In this chapter an attempt will be made to expand on some K/A theories set up in Chapter II.

There have been two basic directions taken in this dissertation in an attempt metaphysically to "locate" bodily movements in their relation to actions. One way taken by the K/A dualist is to show various ways in which K-items and A-items can be related such that K-items can be said to be basic among classes of behavioral items. Chapters III through V are attempts to uncover various ways in which K-items could be said to be basic. Basicness, as we have seen in the case of Goldman, is a tool of the K/A parallelist who wants to chart relations between K-items and A-items which are noncausal in nature. In Chapter VI and elsewhere it was suggested that epistemic basicness and conceptual basicness
could be used by the kinematicist who attempts to exhibit a compatibility between epistemic or conceptual pluralism and ontological monism (e.g., the multiple language kinematicist). The second direction has been to present monistic positions on the K/A problem. This chapter will be an attempt to present one such monistic position, eliminative kinematicism.

In this chapter, a further exploitation of mind/body positions will be made in order to get clear on the K/A problem. In Section One, I suggest parallel motivations that one could have for being a kinematicist and for being a materialist. In Section Two, I attempt to show, in greater detail, what eliminative kinematicism comes to and how it is presently used in the mind/body literature.

In Section Three, I will attempt to lay out a K/A functionalist position and show parallels between K/A functionalism and mind/body functionalism.

Section One - The Quest for the Unity of Science:

Materialism and Kinematicism

The kinematicist on the K/A problem and the materialist on the mind/body problem have much in common. The kinematicist is a materialist if body movements and topological features of the body are material items. But I have hesitated to use the word 'materialist' for two reasons. First,
I wanted to separate two metaphysical problems by erecting a nominal token. Secondly, 'material' or 'matter' is a polar concept such that a necessary condition for being able to use it is that we be able to use its opposite. The opposite of 'material' is 'psychological' or 'mentalistic' or 'spiritual.' There is no such polarity in the metaphysics of behavior. The members of the expression classes are not collectable in terms of materialistic vs. immaterialistic expression classes. There is in the metaphysics of behavior, no polarity between what is material and what is not.

John's painful grimace may be just as material as a change in the surface of John's face. My signing a deed as opposed to merely moving my pen is not the sort of thing to which we usually apply the material/immaterial dichotomy. We know, of course, that tables and chairs are material if anything is, but signing deeds seems to have much the same precarious status as people's voices, shadows and wide smiles. To understand 'material' or 'matter' we must be able to understand it in juxtaposition with a foil term providing the context of discourse.\footnote{J. L. Austin, \textit{Sense and Sensibilia} (Oxford University Press, 1962) p. 8.} (Are we talking of material objects as opposed to sensory objects?)

It might be supposed that the material-as-opposed-to-psychological is a helpful dichotomy which would be of help

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in understanding 'material' when applied to kinematical items. Intentional actions as opposed to bodily movements do seem to involve something psychological whereas the latter are only physical. But the expressions needed to state the problems of the metaphysics of behavior need not fall under the psychological/material dichotomy. 'Signing a deed,' for instance, is not paradigmatically psychological in the way that 'intending to sign a deed' is. Even if there were no metaphysical problem about the nature of intentional actions, there would still be problems in the relational metaphysics of behavior. That is, the problem of the relation between a signalling and a bodily movement would go unsolved even if we assumed at the outset that one item did not involve something psychological. (See Chapter II, Section Six)

In spite of the above reservations about the application of 'materialistic' to the kinematicist, the motivations for kinematicism will be similar to those for materialism in mind/body metaphysics. Kinematical expressions are close to paradigmatically materialistic expressions even though non-kinematical expressions in the metaphysics of behavior are not necessarily paradigmatically immaterial, spiritual or psychological. Given the physicalistic or materialistic character of the kinematical language, some kinematicist metaphysical positions would serve the physicalistic quest for the unity of science better than other positions in the
metaphysics of behavior. I qualify the above statement to some kinematicist positions. Those kinematicists who replace an ontological dualism with a conceptual, epistemological or linguistic dualism will not make great strides toward supporting the unity of science thesis, but neither will the materialist who holds the parallel position on the mind/body problem. This is why some philosophers have turned to eliminative materialism.

Section Two - Eliminative Kinematicism

In Chapter II an attempt was made to formulate a K/A position which was called "eliminative kinematicism." Such a position involves the denial that A-terms have a referential role and, as such, are not part of the language of ontology. K-terms are referential. The radical eliminativist maintains that A-terms have no referential role nor do they have any other uneliminable role. The conservative maintains that although there are no A-items, A-expressions still have uneliminable roles.

"Eliminable" and "uneliminable" are elliptical here. "Eliminable given the purposes of science" or "eliminable given the purposes of ordinary discourse" are different ways to add to the locution. Much depends here on various theses about how science relates to ontology, how the language of ordinary discourse relates to ontology and how the language
of ordinary discourse relates to the language of science. One could, for instance, maintain that A-expressions could be eliminated from the language of ontology but not from the language of science. The tendency of the scientific realist is not to let the richness of the language of science exceed the richness of the language of ontology and vice versa. There are others who want to drive a wedge between science and ontology by claiming, in the words of Gustav Bergmann, "Ontology is phenomenological. The rest is merely science." Science is pushed into the realm of ordinary discourse and common sense, whereas ontological discourse is separate from ordinary discourse. Richard J. Bernstein takes somewhat the same tact, keeping ontology in the realm of the phenomenological and separating phenomenological discourse from scientific discourse. Bernstein, unlike Bergmann, appears to separate ordinary discourse from scientific discourse and ontological discourse from ordinary discourse. For Bernstein

both the spirit and letter of Wittgenstein and Continental phenomenologists should reawaken us to an awareness that the consciousness of our own experiences of the language in which we report and describe our sensations and feelings is different from and no less legitimate than scientific discourse.\(^3\)


\(^3\)Richard Bernstein "The Challenge of Scientific
Still others, such as Sellars, drive a wedge between scientific discourse on one hand and ordinary or "manifest" ways of describing, explaining, and reporting. Scientific discourse and ontological discourse are one and the same; and scientific discourse is to be contrasted with the discourse of common sense or ordinary discourse. So if an expression is indigenous in its use to scientific discourse, it is indigenous in its use to the activity of describing things as they really are. But an expression is not necessarily eliminable for the purposes of ordinary discourse just because it is not part of the conceptual system known as "the scientific image."

There are, then, several theses about the interrelationship of three realms of discourse; one scientific, one ordinary and one ontological. Realms of discourse are very general activities in which classes of non-logical expressions are used. Here are some combinational possibilities.

A. Ordinary discourse = scientific discourse = ontological discourse
B. Ordinary discourse = scientific discourse ≠ ontological discourse
C. Ordinary discourse ≠ scientific discourse = ontological discourse

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D. Ordinary discourse ≠ scientific discourse ≠ ontological discourse

Which pattern of metaphilosophy that is taken here bears on the question of the eliminability of expressions. Ontological discourse is the class of referential expressions. If one assumes that an expression, e, is eliminable from ontological discourse, then, given patterns A and C, one can deduce that e is eliminable from scientific discourse. Patterns which admit of equally rich, classes of scientific and ontological vocabularies are scientific realist positions. The easy transition from eliminability from ontological discourse to eliminability from scientific discourse is augmented by scientific realist presuppositions about the relationship of science and ontology.

As I have defined scientific realism, it is a rather extreme position identifying the class of scientific, non-logical expressions with referential expressions. But it is just this extreme position which is needed to support the easy inference from "eliminable from the language of ontology" to "eliminable from the language of science."

The lesson here is that in presenting an eliminative position, it is important that one gets clear on what

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4E. A. Burtt reflects pattern (A) in his, The Metaphysical Foundations of Modern Science. Gustav Bergmann best reflects pattern (B). Wilfred Sellars reflects (C) and Richard Bernstein is, I think, closer to pattern (D) than (B).
follows from the fact that certain expressions can be eliminated from the language of ontology. Does it follow that those expressions have no role in scientific discourse or in ordinary discourse? This metaphilosophical question must be answered by a metaphilosophical response. One crucial question here is, "What is the relationship of science and ontology?"

There is yet another level of discussion which is relevant to the topic. So far, discussion has been about expression roles within specialized activities and the corresponding vocabularies needed in those activities. Very generally, those activities are philosophical, scientific and the category for left overs, the category of ordinary discourse. One can discuss the interrelationship of more specific linguistic roles—roles in linguistic acts. For instance the role of expressions in the language of ontology is a referential role. There are other specific linguistic roles, and one can ask: "If an expression can be eliminated from the class of expressions which play referential roles, does it follow that it can be eliminated from other roles?" One can imagine an argument against an eliminative position in which it is claimed that a class of expressions can always be dropped but a multiplicity of linguistic roles will still be left. One may simplify the vocabulary, but not the

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5James Cornman, "On the Elimination of 'Sensations'
linguistic jobs. The set of post-elimination expressions must now do more than one job.

The difference between this level of discussion and the previous one is merely a difference in generality. We are still talking about expression roles. At the more general level the discussion was about the role of expressions in scientific, ontological and ordinary discourse. At the more specific level the roles that interest us are roles such as predicative, descriptive, observation-reporting, explanatory, predictive and emotive roles. At the more specific level one must ask: "If an expression can be eliminated from the class of expressions with referential roles, does it follow that an expression can be eliminated from their predicative, descriptive, observational, explanatory, predictive and emotive roles? One way that a radical eliminativist can simplify his task of proving that a particular set of nonreferential expressions plays no other role, is to cut down on the set of roles of relevant expressions. The emotive role is irrelevant to the discussion. For example whether or not we can in principle eliminate 'demon' from emotive use is not relevant to the question of the existence of demons. Richard Rorty's materialistic eliminativism is stated in terms of the elimination of the referring use of an expres-

sion and the consequences, if any, on our ability to de-
scribe and predict. For Rorty,

"There are no demons" and "What people
call 'sensations' are nothing but brain
processes" can both equally well be para-
phrased as "Elimination of the referring
use of the expression in question ('de-
mon,' 'sensation') from our language
would leave our ability to describe and
predict undiminished." 6

The second way to cut down on the number of roles is by
eliminating false dichotomies. For instance, some philoso-
phers maintain that certain terms have a special observa-
tional-descriptive role and that others have an explanatory-
predictive role. If the eliminativist can fuse this alleged
dichotomy, his case is strengthened. Cornman suggests that
an eliminative materialist

might adopt an extreme version of scien-
tific realism, one which holds that in
all cases those pure theoretical terms
of science that provide the best available
explanation of behavior also provide the
best available descriptions of the things
whose behavior they explain. 7

Notice here that a scientific realist, as presented by
Cornman, could still maintain that there are two distinct
linguistic roles but that explanatory expressions play the
given-reporting role. Richard Rorty denies that there is

6Richard Rorty, "Mind-Body Identity, Privacy, and Cate-
gories" reprinted in O'Connor op. cit., p. 152.

7Cornman, op. cit., p. 193.
a given-reporting role because there is no given to report.\textsuperscript{8}

The strong eliminativist has much in common with a certain breed of ideal language philosophers, especially those who wish to reconstruct the language of science. There is a notion of 'reconstruct' which involves the elimination of certain expressions so that certain things cannot be said.

Gustav Bergmann, for instance, presents two criteria for an ideal language.

One of these criteria...demands that in such a language the so-called philosophical puzzles disappear, or, as some put it, that they cannot even be stated in it.\textsuperscript{9}

Certain philosophical puzzles may arise when one set of expressions are used to make identity claims. (For instance, some Leibniz' Law objections may be viewed as being insurmountable.) The strong eliminativist suggests that it is possible in principles to restrict the language of science so that puzzling identity claims are "unsayable." And this could be accomplished without loss of predictive and explanatory power.\textsuperscript{10}

\textsuperscript{8}Richard Rorty, "In Defense of Eliminative Materialism" reprinted in Rosenthal op. cit., p. 231.


\textsuperscript{10}At this point, our earlier discussion on the relation of ordinary discourse and ontology becomes crucial. Something may be "sayable" in ordinary discourse but not "sayable" in scientific or ontological discourse.
One of the most important questions in the theory of action is "Can actions be causally explained by reference to, and only by reference to central behaviors?" Let us suppose we are trying to causally explain why John signed the deed. Imagine two philosophers, A and B, discussing the question. B claims the following:

B. Actions are identifiable with motions performed in states for which sufficient conditions can be formulated in appropriate causal language about central behavior.

A. You cannot explain the action by giving antecedent conditions which are causally sufficient for the motions of John's hand as it makes marks on the paper. Statements of the antecedent conditions providing a causal explanation of the signing of a deed cannot all be about C-items. One must explain here by making reference to legal norms, conventions and institutions. Furthermore, if you want to maintain that causal propositional contexts are not intensional, either you must not identify actions with motions as you suggest or maintain that there are two very different kinds of explanation, one causal and one not, which can be used to explain one and the same phenomenon.

B: Nothing more than a terminological question is involved here. A terminological stipulation would, therefore, appear to be the appropriate answer to the question. If one wishes to preserve the generality of psychological explanation from this sort of criticism without abandoning one's
hope of a causal psychology, one might say that signing a deed is not a bit of behavior in any sense of that term that interests a psychologist. (Saying that "signing a deed" is not a description of behavior would then be akin to saying that "spending more than you can afford" is, from the physicist's point of view, not a description of a physical event.)

B is no longer maintaining that actions are identical to motions. He is suggesting that limitations can be placed upon the kinds of behavioral descriptions with no loss of explanatory or descriptive power for the science of psychology. He is displacing a whole set of descriptions. For the purposes of the scientist explaining behavior, there are no events such as the signing of deeds. 'Signing a deed' is not a referential or descriptive term in the reconstructed and restricted language of psychology.

Fodor claims that the issue is a terminological one. By that, he appears to be suggesting that we can stipulate what behavioral descriptions are relevant to psychological investigation prior to investigation. He suggests a criterion for eliminating the descriptions of behavior which are of no interest to the psychologist. One restricts the language of psychology to that behavior which "includes

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11 The paragraph is stated in the words of Jerry Fodor, Psychological Explanation, (Random House, 1968) p. 47.
precisely that part of what an organism does that it makes logical sense to try to simulate."\(^{12}\) It is interesting to note that it has been those who have maintained that actions cannot be mechanistically explained who have been accused of a priorism.\(^ {13}\) But Fodor appears to have an a priori way of determining what behavior it makes logical sense to try to simulate. I want to argue that where we draw the line between what behavior can be simulated, and what cannot be, is by no means uncontroversial; and when one provides a criterion, it is easy to beg the question against alternative theories of behavioral explanation. For example, Fodor believes that recognizing the utterance of a meaningful sentence can be simulated;\(^ {14}\) but signing a deed cannot be simulated. Some philosophers would want to put the utterance of meaningful sentences in the same category as signing deeds. Fodor does not. Perhaps this is because it is presupposed by Fodor that the former can be fully explained by underlying mental operations, whereas signing a deed cannot be. But this is a question begging presupposition. On the face

\(^{12}\)Ibid., p. 47.

\(^{13}\)N. S. Sutherland makes such an accusation in his "Is the Brain a Physical System?" from Explanation in the Behavioural Sciences Borger and Cioffi (eds.), (Cambridge University Press, 1970) p. 166.

\(^{14}\)Fodor, op. cit., p. 84.
of it, the action of signing a deed and uttering a meaningful sentence have much in common. Both are performed within certain conventions, in one case, grammatical, syntactical, and pragmatically conventions; in the other case, legal conventions. In any case the eliminability of a behavioral language from psychology does not appear to be a mere matter of linguistic decision. It is not, as Fodor suggests, merely terminological.

Now there are those who would maintain that if a set of A-terms play no uneliminable referring or descriptive function and can be eliminated for the purposes of psychology, then they can be eliminated from all of the social sciences. Fodor does not commit himself to this position. This more extreme position is, however, one that would be taken by those who wish to reduce all of the social sciences to psychology. More accurately, "the issue for the social sciences is not whether we should be reductionists, but rather, if we were reductionists, whether we could find any propositions to reduce."\(^{15}\) Although Fodor's elimination thesis is not as strong as those defined in Chapter II, Fodor's thesis has the same motivation behind it as eliminative materialism. Instead of becoming ensconced in the problems of identity and reduction, the eliminativist suggests that it is possible

in principle to eliminate a whole set of expressions without
having any loss of explanatory and predictive power. Problematic identity claims will, in principle, be "unsayable" in the restricted language of psychology. Whether or not the language of psychology is the only language required for explanation in the social sciences is an issue which may turn on certain positions in the metaphysics of behavior. The kinematicist will, I think, tend to appreciate a large gap between explanation in the other social sciences and explanation in psychology proper or he may reserve terms such as 'explanation' and 'science' for more hallowed occasions in which motions are explained.

Fodor's position has been given primarily as a heuristic device to show the motivations for taking some eliminative position or other. But it is important that we enumerate more exactly the points made by a K/A strong eliminative kinematicist as presented in Chapter II. First, from this standpoint "actions are motions" is not true. Nor is it true that there are actions. And A-terms do not denote. All of our action talk is ontologically superficial. A-terms are scientifically superficial; they may have other linguistic jobs which are not jobs required for causal explanation and prediction; thus A-terms may be used in true sentences, but all sentences where A-terms are used referentially are false. There could be no science of actions for the same reason that there is no science of centaurs.
There are none.

Notice that the SEKist is not claiming that A-terms refer, yet are ontologically neutral or noncommittal. Our beliefs about actions are not topic neutral as to the ultimate referents of A-terms. A-terms have no referents.

The conservative SEKist will argue that there are only nonreferential roles for A-terms. For instance, the role of A-terms may be ascriptive. To say that John signed the deed is to confer legal responsibility on John, given John's role in a kinematic event. This conservative SEKist could no more maintain that the study of actions is a science than ascriptivists on ethical issues could hold that ethics is a science.

There is yet another way to interpret Fodor in determining his K/A theory. That theory is a K/A functionalism.\textsuperscript{16} The functionalist believes that A-terms refer to functional attributes which are realized by K-items. 'Realized by' I am reading as 'exemplified by.' Functionalism is an attribute theory under this reading. Fodor's K/A functionalism is suggested in the following passage:

\begin{quote}
It would be hoped that sufficient information about initial states, together with a viable theory of actions, would in principle permit the theorist to compute the pattern of motions that will
\end{quote}

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\textsuperscript{16} This theory will be spelled out in greater detail in the next section.
realize a given action on a given occasion. The fact that under different initial conditions the same action may be realized as a different pattern of motions is irrelevant to the feasibility of this goal.\textsuperscript{17}

Regardless of whether or not the reader can pull a K/A functionalist interpretation out of this passage, it should be contrasted with reductive kinematicism in which A-items are identical to a set of K-items. 'Realized by' is very different from 'identical to.'

Let us now turn to K/A functionalism. In Section Three I will spell out this position in more detail.

Section Three - K/A Functionalism

In Chapter II, I classified K/A functionalism as an attribute theory. An attribute theory is a theory in which members of one or both expression classes in question refer to attributes or properties. In all attribute theories, attributes are to be counted in an inventory of what there is. The parallel in the presentation of K/A functionalism is mind/body functionalism. So I will first say some things about mind/body functionalism.

\textsuperscript{17}Fodor, op. cit., p. 43.
A. Mind/Body Functionalism

The minimal claim of the functionalist is the following:

MF: The body/mind distinction is analogous to the structural/functional distinction as applied to machines.

To support MF, one shows the similarities between issues surrounding both distinctions. All the metaphysical problems and putative solutions surrounding body/mind metaphysics have parallels in what one might call the structural/functional metaphysics of machines. The argument from analogy spelling out similarities between body/mind metaphysics and structural/functional metaphysics may be used to argue that the mind is not a differentiating characteristic of humanoids as opposed to machines. For all arguments used to support the existence of humanoid souls in mind/body metaphysics, there are similar arguments that could be used to support the existence of machine souls in structural/functional metaphysics.

MF is used to throw light on the nature of the mind/body problem. MF may be used not as a premise but as a schema for an argument from analogy. Functionalist articles are, for the most part, arguments from analogy where a whole set of similarities are set up between problems and issues surrounding the structural/functional distinction as it
applies to machines and the mind/body distinction as it applies to humans. Putnam draws the following conclusion after such argumentation from analogy.

The moral, I believe, is quite clear: it is no longer possible to believe that the mind-body problem is a genuine theoretical problem, or that a "solution" to it would shed the slightest light on the world in which we live. For it is quite clear that no grown man in his right mind would take the problem of the "identity" or "non-identity" of logical and structural states in a machine at all seriously—not because the answer is obvious, but because it is obviously of no importance what the answer is. But if the "mind-body problem" is nothing but a different realization of the same set of logical and linguistic issues, then it must be just as empty and just as verbal.18

Since the key issues surrounding the structural/functional distinction are merely verbal, so are the solutions surrounding the mind/body distinction.

One can use MF (as a schema instantiated by particular similarities or analogues in an argument from analogy) to arrive at very different conclusions. The critical premise is that in which a characteristic is applied to the structural/functional distinction: that characteristic which is then applied, in the conclusion of the analogical argument, to the mind/body distinction. For Putnam, the various

problems surrounding the question "are structural states identical to logical states?" are nearly the same as those surrounding the question "are physical states identical to mental states?" If the former turns on linguistic commitments, then the way one answers the second question will also turn on linguistic commitments.

Now, it should be noted that minimal functionalism does not commit one to a mind/body theory at all; it is a metatheory about the nature of the mind/body problem and putative solutions. It would be possible to hold MF and be a believer in Cartesian minds; but one would have to grant that machines could have Cartesian mind analogues since a parallel dialectic applies to the structural/functional distinctions. "Anyone who wishes, then, to argue on this basis for the existence of the soul will have to be prepared to hug the souls of Turing machines to his philosophic bosom!"¹⁹

Where MF is used to come to a mind/body position, additional arguments must be added making it plausible that psychological states of an organism are identical to logical states of an organism. Species of functionalism will be differentiated by positions taken in structural/functional metaphysics²⁰ (hereafter referred to as S/F metaphysics).

¹⁹Ibid., p. 153.

²⁰Alternative notions of S/F metaphysics will be spelled out in the next chapter.
The class of F-expressions will be logical state descriptions presented in the vocabulary of a machine table. The class of S-expressions will be physicomechanical descriptions such as 'flip flop 36 is on,' 'the third, fifth, and sixth relays are closed,' 'a current is now passing through the red wires but not the green,' 'a magnetic field is now present in area A' and 'the macaroni and chewing gum now has physical properties \( p_1 \) and \( p_2 \).' The last expression is put in the list to underscore the fact that very different physical items can be related to the same referents of F-expressions. There is little limitation put on what sorts of structural items there are—they could be specified in terms of macaroni and chewing gum. The 'could' here is that of logical possibility.

The possibilities for different S/F positions are restricted by the following claim made by functionalists:

- F-items are realized by S-items.

Whatever 'realized by' means, it is not 'identical to.' This seems to eliminate an S/F identity theory. But let's suppose that 'realized by' means 'exemplified by.' Our S/F theory would be restricted, it seems, to an attribute theory. F-items are attributes which are related to S-items by being what the latter exemplifies.

Now it is very important that we distinguish mind/body theories from S/F positions. Even though the S/F theory is an attribute theory, a functionalist need not maintain a
mind/body theory which is an attribute theory. The choice of positions is between an S/M identity theory or an F/M identity theory. A good example of an S/M identity theory is the position taken by David K. Lewis. M-items are identical to S-items just in case the S-items occupy a causal role of certain sort. For instance the mentalistic expression 'pain'

is a contingent name—that is, a name with different denotations in different possible worlds—since in any world, 'pain' names whatever state happens in that world to occupy the causal role definitive of pain.\(^2\)

Now it is interesting to note that, although for every functionalist, F-items are role universals which are realized by S-items, the functionalist's mind/body position may be either an S/M identity theory or an F/M identity theory. Lewis' theory is an S/M identity theory such that mental terms (e.g. 'pain') refer to the occupants of roles which are definitive of pain. Lewis' S/F theory is an attribute theory, but his mind/body theory is an S/M identity theory. His mind/body theory is an S/M identity theory where 'pain' applies to S-items just in case the S-items exemplify a role universal definitive of pain. Other functionalists could identify M-items with F-items which are

role universals. In that case, theirs would be a mind/body attribute theory. F-items are attributes or universals and S-items are what realize F-items.

A good example of an F/M identity theory is that of Kenneth Sayre. M-items are identical to a certain set of universals which are "informational properties of information-processing systems, and as such can be described only in terms of the statistical measures of information theory." In such a case as this, M-items are immaterial items just in case F-items are.

If mathematical relationships are excluded from existence in a strictly materialistic universe, then the concept of information at the basis of the IP [Information Processing] account will have to be taken as immaterialistic; but in a modified materialism that enjoys an unreservedly comfortable coexistence with mathematics, the concept of information will appear no more anomalous than other statistical concepts already current in thermodynamics and quantum physics.

I have used the phrase 'role universal; and this is in need of explication. First let us talk about roles. Think of the play, Hamlet. In the play there is an ordered pattern of interrelationships which Hamlet has with other characters; this ordered pattern of interrelationship is preserved regardless of whether or not Richard Chamberlain or

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23Ibid., p. 214.
Dame Judith Anderson are occupants of the Hamlet role. The Hamlet role is not identical to Richard Chamberlain nor Dame Judith Anderson, but is something that can be realized by them. It could be realized by a tape recorder pulled around on stage in a toy wagon. 'Role universal' is seen to be redundant when we see that a role is a universal. I shall continue to talk of roles with the assumption that they are universals.

'Hamlet' can be used to name the role of Hamlet or the occupant of the role. Lewis treats 'pain' as a name of an occupant of a particular causal role. The occupants are S-items; and S-items are neural states. Lewis calls 'pain' a contingent name—the referent of the name is contingent upon what occupant is filling the role. I think that, in the same sense, 'mousetrap' can be called a contingent label when applied to the heel of Fred's boot after Fred hurls his boot at a mouse. It labels the heel of Fred's boot just in case it is used to trap mice.

Now we could attempt to define the Hamlet role in terms of ordered n-tuples. Keeping the example as simple as possible, we could think of an ordered pair \( (t, p) \) where \( t \) is a member of the class of time values into the play (e.g., curtain time, curtain time plus ten minutes, curtain time plus 15 minutes) and \( p \) is a member of the class whose members are themselves ordered pairs of values denoting stage coordinates. We can say that a Hamlet state is the ordered
n-tuple of values exemplified by an actor at a particular time. And the Hamlet role can be viewed as the set of these discrete states. A state here is a universal consisting of values of the ordered n-tuple.24

How we describe a role depends upon the factors we choose and the set of possible values along each factor. Both may vary with the interests of the role ascriber. A drama teacher may emphasize the written work. Thus the Hamlet role would involve the factor of Hamlet's lines into the script and the relation of the factual character, Hamlet, to other fictional characters during different scenes. The role of Hamlet would involve a different collection of factors for the property man or the stage manager. For

24One of the most important applications of n-tuples is their use as coordinated locations. But the notion of a Hamlet state is very much like the notion of a more complicated state which can be defined in set theory. The following is an example given by Richard H. Thomason: Suppose that we are interested in more than coordinated locations; suppose that we are interested in other features of things; e.g., their absolute temperature (to the nearest whole number), and whether or not they are metallic; the numbers 1 and 2 can be used to represent whether or not the item in question is metallic or nonmetallic. We can think of the state of a thing (regarding the four factors: horizontal location, vertical location, temperature, and "metallic-ness") as a possible outcome with regard to these four factors. The ordered quadruple involved here may be viewed as

\[ \langle i,j,m,n \rangle \]

where \( i \) and \( j \) are spatial values, \( m \) is a possible member of the set \( \{0,1,2,\ldots\} \), and \( n \) is a member of \( \{1,2\} \). (See Thomason's Symbolic Logic, The Macmillan Co., 1970, p. 289.)
instance, the factors defining the ordered pair defining the Hamlet role for the property man might be position into the script and the class of Hamlet's properties called for in the play.

If we take the two factors, time into the play and relations to all other characters in the play, the Hamlet role will be specified in terms of temporal values and relational values. In such a way, the Hamlet role would be defined in terms of the relational properties that all other characters have to Hamlet at various times. To simplify, let us suppose that there are three characters, (a, b, and c) besides Hamlet in the entire play; and let us suppose that there are four time values, say, curtain time, t; t + 10; t + 20; t + 30; the Hamlet role could be defined in the following table; and a Hamlet role state could be defined as various values of R in any column in the table.

<table>
<thead>
<tr>
<th></th>
<th>t</th>
<th>t + 10</th>
<th>t + 20</th>
<th>t + 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>R(a,Hamlet)</td>
<td>R(a,Hamlet)</td>
<td>R(a,Hamlet)</td>
<td>R(a,Hamlet)</td>
</tr>
<tr>
<td>b</td>
<td>R(b,Hamlet)</td>
<td>R(b,Hamlet)</td>
<td>R(b,Hamlet)</td>
<td>R(b,Hamlet)</td>
</tr>
<tr>
<td>c</td>
<td>R(c,Hamlet)</td>
<td>R(c,Hamlet)</td>
<td>R(c,Hamlet)</td>
<td>R(c,Hamlet)</td>
</tr>
</tbody>
</table>

A similar table can be made to represent a-states where a is a character in the play who is not Hamlet.
<table>
<thead>
<tr>
<th>t</th>
<th>t + 10</th>
<th>t + 20</th>
<th>t + 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamlet a</td>
<td>R(Hamlet,a)</td>
<td>R(Hamlet,a)</td>
<td>R(Hamlet,a)</td>
</tr>
<tr>
<td>b</td>
<td>R(b,a)</td>
<td>R(b,a)</td>
<td>R(b,a)</td>
</tr>
<tr>
<td>c</td>
<td>R(c,a)</td>
<td>R(c,a)</td>
<td>R(c,a)</td>
</tr>
</tbody>
</table>

The Hamlet state here can be represented as various values of an ordered quadruple \( \langle t, C, H, f \rangle \) in which \( t \) is a finite set of times into the play, \( C \) is a finite set of characters other than the Hamlet character, \( H \) is the unit set containing the Hamlet character and \( f \) is a set of functions from the set \( C \) on to the unit set \( H \).

Dame Judith Anderson can be said to occupy the Hamlet role just in case she bears a certain set of relations to all other characters over a span of time.

Now functionalists view the word, 'pain' as a role term in the same way that 'Hamlet' is a role term. 'Pain' refers either to a role or a role occupant.

Old line behaviorists could be construed as analyzing mental terms as role terms too. John's being irritable could be defined in terms of a particular set of ordered values in the ordered triple \( \langle I, O, f \rangle \) in which

- \( I \) is a set of behavioral inputs
- \( O \) is a set of behavioral outputs and
- \( f \) is a function from the set \( I \) to the set \( O \).

Mind/body functionalists, on the other hand, wish to add the dimension of internal states. Here a psychological
state is identical to a state defined in terms of values of the ordered quadruple \( (I, O, S, f) \) in which

- I is a finite set of inputs
- O is a finite set of outputs
- S is a finite set of internal states and
- f is a set of functions: \( I \rightarrow S, S \rightarrow O, S \rightarrow S \)

Psychological states, then, are sets of values drawn from the sets, I, O, S, and f. A pain state may involve a certain subset of all inputs, I, which are picked out by a certain characteristic (e.g. inputs related to organs capable of detecting sensory extremes). The subset of f might be a function which assigns a high disvalue to such extremes, given the presence of members of S. For Putnam,

we can specify the functional state with which we propose to identify pain, at least roughly, without using the notion of pain. Namely, the functional state we have in mind is the state of receiving sensory inputs which play a certain role in the Functional Organization of the organism. This role is characterized, at least partially, by the fact that the sense organs responsible for the inputs in question are organs whose function is to detect damage to the body, or dangerous extremes of temperature, pressure, etc., and by the fact that the "inputs" themselves, whatever their physical realization, represent a condition that the organism assigns a high disvalue to.25

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B. K/A Functionalism

The key concepts in the explication of functionalism are 'role' and 'occupant.' Various occupants can realize the same role universal. In Part A of this section I attempted to show how mind/body functionalism uses the structural/functional distinction to elucidate the relation of mental items to physical items. In Part B of this section I shall attempt to show how minimal functionalism can be used to elucidate the relation of actions to bodily movements. In Part C of this section an attempt will be made to show some similarities between contextualist theories of action and K/A functionalism. Much more will be done in the next chapter to explicate K/A functionalism and its relation to a special kind of mind/body functionalism.

A K/A functionalist position is one which consists of at least the following analogical claims:

1. The relation between motions and actions is like that of the relation of structural items to functional items.
2. Functional items are realized by structural items.
3. Actions are realized by kinematical items.
4. Structural items are role occupants (exemplifiers of role universals).
5. Motions are role occupants.
6. Action terms are either contingent names of motions just in case they exemplify certain kinds of role universals or they are names of the role universals exemplified.
(6) parallels an earlier thesis on mind/body functionalism. K/A functionalism breaks down into either an identity theory kinematicism or an attribute theory, depending upon whether or not the role terms are taken to be contingent names of occupants or the universals they exemplify. The problem here is how to map action terms onto the items of structural/functional relational metaphysics. Are actions identical to a certain set of S-items which realize F-items or are they identical to the F-items which are realized? The K/A identity theorist will maintain that K-items are the referents of K and A expressions, whereas the K/A attribute theorist will claim that A-expressions refer to the universals exemplified by K-items.

C. K/A Functionalism and Contextual Accounts of Actions

Jerome Shaffer, in his taxonomy of theories of intentional action, presents a position which he calls the contextualist view. This theory holds that

what is distinctive about actions is an implicit reference to some set of rules,

26 At this point, K/A Weak-Eliminativism is not distinguishable from K/A identity theory. It is possible that a thorough working through of weak eliminativism may show it comes to K/A identity theory or K/A strong eliminativism. Lycan and Pappas in "What is Eliminative Materialism" have made parallel comments with regard to Weak eliminative materialism of the sort put forth by Rorty. Australasian Journal of Philosophy, Vol. 50, No. 2; August, 1972.
norms, practices, principles, or standards in terms of which the action is described and can be evaluated.  

Shaffer cites two defenders of the contextualist view: A. I. Melden in *Free Action* and R. S. Peters in *The Concept of Motivation*. A. R. Louch in *Explanation and Human Action* (Oxford: Basil Blackwell, 1966) can be added to this group.

I would like to show how very close K/A functionalism is to the contextualist viewpoint. I want to suggest, furthermore, that if we were ever to get the metaphysical basis for contextualism (as a rule we do not get this from the authors cited), the position could be explicated as a K/A functionalism.  

First, in showing that contextualism and K/A functionalism are parallel (perhaps identical) positions, I will show some parallels in the notions of context and role. Second, I will show parallels by discussing a dualism of kinds of explanation—a dualism that would be accepted by both a K/A functionalist and a contextualist for much the same reasons. My goal is to show dialectical similarities to such an extent that K/A functionalism will be

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28 It should be remembered that the class of A-expressions includes various interesting subclasses of A-expressions (see Chapter II, pp. 50-52). Not all A-expressions will be relevant to the solution of contextualist's problems.
seen to be a very plausible representation of the contextualist viewpoint. What follows is a triple analogy among contextualism, K/A functionalism and mind/body functionalism. What I am doing is presenting a theory (K/A functionalism) which really is the contextualist position were the latter made explicit as to its metaphysical commitments. The interesting point will follow that some of the dialectical strengths of mind/body functionalism can be inherited by the contextualist, insofar as he can be seen to be a K/A functionalist.

Contextualists, as their name might imply, place a great deal of importance in the notion of a context; and contexts are defined in terms of norms, conventions, rules, or social practices. A favorite example for laying out the logic of action terms is the example of a game of chess. Action terms such as 'signalling' depend upon there being social practices or conventions of a certain sort in much the same way that a checkmating move is dependent upon the rules of chess. Rules enter into the description of certain actions in much the same way as they enter into the description of a piece of wood as a knight and stuffed animal skin as a baseball. What I want to suggest here is that the structural/functional distinction may help the contextualist to elucidate the notion of a rule-dependent description. Just as 'pain' can be treated as a contingent name of an S-item which exemplifies a complex universal, 'baseball' can
be treated as a contingent label of an item which fulfills certain states, given the rules of baseball. The same ordered pattern of interrelationships (determined by the rules of baseball) could be exemplified by a wide range of items (at least where there are no regulation balls specified in terms of physical characteristics). And the same ordered pattern of chess relations could be exemplified by a penny as well as by a piece of wood shaped like a pawn in a chess game.

A context is nothing more here than what a functionalist might call functional organization, and much of what is said here about the similarities of contextualism and K/A functionalism depends heavily on a wide understanding of "functional organization." What is different between the K/A functionalist (contextualist) and the mind/body functionalist is the kind of functional organization. And this is specified in different kinds of rules. For the mind/body functionalist, structural items are provided a "logical description" with reference to a machine table. A machine table provides a set of rules. Putnam claims, for instance, that

the "logical description" (machine table) of the machine describes the states only in terms of their relations to each other and to what appears on tape. The "physical realization" of the machine is immaterial, so long as there are distinct
states A, B, C, etc., and they succeed each other as specified in the machine table.29

The triple analogy that I am suggesting here is the following: the machine table is to physiological items what the rules of baseball are to physical items described as baseballs. And both are analogous to the role of norms, conventions and social standards in action descriptions. Action descriptions are either contingent referring expressions referring to motions if and only if they fulfill or occupy a certain role, or they refer to complex universals exemplified by motions. In that case, 'baseball,' 'pain,' 'Hamlet,' 'signal,' and 'camshaft' are all role terms ascribed on the basis of a certain sort of functional organization.

Now the use of the notion of functional organization can be put to work to support the claim that descriptions ascribed on the basis of a functional organization are logically different from those ascribed to the same item without reference to the functional organization. Putnam claims that

As applied to Turing Machines, the functional organization is given by the machine table. A description of the functional organization of a human being might well be something quite different and more complicated. But the important

29Putnam, "MM" op. cit., p. 143.
thing is that descriptions of the functional organization of a system are logically different in kind either from descriptions of its physical-chemical composition or from descriptions of its actual and potential behavior.\(^\text{30}\)

Putnam makes this claim in order to support the claim that no mentalistic sentences can be deduced from a set of statements about actual and potential behavior. He is attempting to undermine logical behaviorism. The contextualist (e.g. Peters) attempts to cite another but parallel logical gap—that between nature and convention.

Movements qua movements are neither intelligent, efficient, nor correct. They only become so in the context of an action. There cannot therefore be a sufficient explanation of actions in causal terms because, as Popper has put it, there is a logical gulf between nature and convention. Statements implying norms cannot be deduced from statements about mere movements which have no such normative implications.\(^\text{31}\)

Melden attempts to describe "the radically different logical characteristics of the two bodies of discourse"\(^\text{32}\) we employ,

\(^{30}\)Hilary Putnam, "The Mental Life of Some Machines" in O'Connor op. cit., p. 281. (Hereafter cited as Putnam "MLSM")


the logical character of the language we apply to actions, in contradistinction to that employed by physiologists and others who are concerned with a scientific grasp of the causal circumstances of bodily movements or happenings.33

Fodor, a mind/body functionalist, contrasts functional analysis with microanalysis. In microanalysis one asks: "What does X consist of?" "In typical cases of functional analysis, by contrast, one asks about a part of a mechanism what role it plays in the activities that are characteristic of the mechanism as a whole."34 Parallel to the contextualist's reasons/causes dualism of explanatory accounts, the mind/body functionalist, such as Fodor, entertains a conceptual and explanatory dualism of his own. Just as it is a conceptual confusion to assimilate accounts of actions to accounts of motions for the contextualist, there is, for Fodor, a confusion which occurs when

a term that properly figures in functional accounts of mechanisms is confounded with terms that properly appear in mechanistic accounts, so that one is tempted to think of the function of a part as though it were itself one part among others.35

Fodor suggests that we run into conceptual difficulties "when the vocabulary of one kind of analysis is confounded

33Ibid., p. 184.

34Fodor, op. cit., p. 113.

with the vocabulary of another." Putnam claims that

If discussions in the philosophy of mind
are often curiously unsatisfying, I think
it is because just this notion, the notion
of functional organization, has been over-
looked or confused with notions of en-
tirely different kinds.

Just as the mind/body functionalist contrasts the logi-
cian's and mathematician's account of a machine with the en-
gineer's point of view, the contextualist will contrast
the action-ascribing account with that of the physiologist
(insofar as K-items are physiological items). In the one
case, a functional account will be in terms of the context
of norms of a machine table and in the parallel case, the
functional account will be in terms of a context of social
norms. In both cases the functional account will be with
reference to a context whereby role terms gain significance.

Just as the mind/body functionalist maintains that
functional items have no particular microanalysis, that is,
that identical psychological functions could sometimes be
ascribed to anatomically heterogeneous neural mechanisms,
the contextualist maintains that one action could be as-
scribed to kinematically heterogeneous items.

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36 Ibid., p. 113.
38 Putnam, "MM", p. 147.
Just as there is no particular physical-chemical structure, the possession of which is a physically necessary condition for the presence of a particular functional item (e.g. preferring A to B), \(^{40}\) no particular kinematical configuration is a physically necessary condition for the presence of a particular action. Just as an action can be realized by a host of totally different kinematical items, \(^{41}\) a functional state of a Turing Machine can be realized by a host of different structural items; and the Hamlet role can be realized by various people or even nonhumanoid items.

Both the K/A contextualist and the mind/body functionalist will deny that statements about structural items are logically sufficient for deducing claims about actions or psychological states respectively. \(^{42}\)

Both will maintain that there are two levels (or even kinds) of explanation; the contextualist claims that one

\[^{40}\text{Putnam, "MLSM", p. 275.}\]

\[^{41}\text{Peters, op. cit., p. 13. Think of the many possible kinematical variations that could be involved in signing a contract or clapping one's hands. There may be some very general necessary conditions for, say, clapping one's hands: e.g., the hands must touch each other at different times. But notice that "touch" can be further "neutralized" to a mere K-description involving a description of spatial locations of parts of hands. The particular kinematical configuration thus described is not a necessary condition for the presence of the action described by "clapping one's hands."}\]

\[^{42}\text{Putnam, "MLSM", p. 272.}\]
kind applies to movements realizing actions and the other kind applies to movements qua movements. The functionalist (e.g. Fodor) distinguishes between the explanation of neurological mechanisms qua neurological mechanisms and neurological mechanisms qua mechanisms apt for the production of behavior. The former involves microanalysis of neural mechanisms whereas the latter involves functional analysis of the attribution of a role to neural mechanisms—a role defined in terms of a machine table.

Functional explanation determines a certain kind of principle of individuation for neurological mechanisms on the one hand; and for the contextualist, the functional explanation of movements involves a taxonomy for individuating these kinematical items.

'Signing a contract,' for instance, is a typical example of a human action. The movements involved are grouped together because they are seen by the agent to be efficient and appropriate means to an end. But it would be impossible to stipulate exhaustively what the movements must be.

Now an interesting consequence of this discussion showing the parallel between contextualism and mind/body functionalism is that both can lay claims to the structure/function distinction to present a relational metaphysics. It

\[43\] Fodor, op. cit., p. 110 and 117.

\[44\] Peters, op. cit., p. 12.
also follows that both may share dialectical weaknesses as well as strengths; and it follows from the latter point that the functionalist in sawing away a supporting buttress for contextualism may be sawing away his own buttress. Fodor, for instance, claims at one point that "some actions may be identifiable with motions performed in states for which sufficient conditions can be formulated in appropriate causal language."\(^{45}\) This would be a K/A identity theory. Now if there is such a great dialectical similarity between K/A contextualists and certain mind/body functionalists, we may search for a rebuttal (to K/A identity theory to support the contextualist point of view) from among certain arguments used by mind/body functionalists to undermine mind/body identity theory. Ironically, Fodor himself supplies some arguments which the contextualist could use. Both the K/A identity theorist and the mind/body identity theorist who want to present a position of contingent identity will want to maintain that it is plausible that one to one correspondence can be set up allegedly correlating items which may then be claimed to be identical on grounds of simplicity. But Fodor thinks that this one to one correspondence is not plausible.

For it seems pretty clear that the principles we employ for individuating neurological states are in general different from, and logically independent of, those

\(^{45}\)Fodor, op. cit., p. 46.
that we employ for individuating psychological states. Since what counts as one sensation, one wish, one desire, one drive, and so on is not specified by reference to the organism's neurophysiology, it seems hardly surprising that an organism may persist in a given psychological condition while undergoing neurological change. If a materialist theory is to be construed to deny this, then materialism is certain to prove contingently false. 46

Now, to undermine Fodor's K/A identity theory one can use the same argument skeleton which Fodor uses against the mind/body identity theory. Part of the argument against K/A identity theory will then look like this, given the appropriate deletions and substitutions:

For it seems pretty clear that the principles we employ for individuating kinematical items are in general different from, and logically independent of, those that we employ for individuating actions. Since what counts as one action is not specified by reference to an organism's kinematical condition it seems hardly surprising that an organism may persist in a given action while undergoing kinematical variation. If a kinematicist theory is to be construed as to deny this, then kinematicism is certain to prove contingently false.

The above argument could be used by a contextualist to undermine Fodor's K/A identity theory.

What I am doing is showing how the dialectic, the maneuvers of defense, and the suggested strengths and weaknesses can be represented in both the mind/body functionalist

46 Ibid., p. 117.
and the K/A contextualist. I am also suggesting that K/A contextualism can be construed as K/A functionalism, thus explaining the logical similarities. The positions, if they can be countered, can be countered by parallel moves. It may, for instance, be suggested that mind/body functionalism really is an identity theory in which M-items are just brain states exemplifying a certain kind of universal. A similar point could be made about K/A functionalism whereby actions are just K-items exemplifying a certain kind of universal.

Fodor's argument rests on the assumption that psychological items may remain the same while neural items vary. This assumption is true if we construe the psychological items as universals, but it is not true if we construe psychological items as being identical to a set of neural items which exemplify a particular kind of role universal. I am inclined to think that K/A functionalists are identity theorists at heart,\(^{47}\) and thus they must face up to the claim that actions can be causally explained since they are identical to causally explainable things (viz., kinematical items). A-items are K-items which exemplify a special kind of role universal. This, interestingly enough is the point Fodor makes against contextualists who seem to take actions outside the realm of mechanical explanation.\(^{48}\) It can also

\(^{47}\)Melden, op. cit., p. 85.

\(^{48}\)Fodor, op. cit., p. 46.
be made against those who take psychological items outside the realm of explanation-by-structural microanalysis (viz., the mind/body functionalist).\textsuperscript{49}

K/A functionalism will, under one interpretation be compatible with K/A identity theory. But it may still be incompatible with what may be used as a key support for a K/A identity theory. That support is the claim that it is plausible that physical laws correlating particular K-items with allegedly numerically diverse A-items can be discovered. The K/A functionalist will deny this claim. Even if A-items are identical to a certain class of K-items, functionally characterized, it is implausible that we could causally correlate K-items which are truly characterized by a role universal of a certain sort with particular K-items which are not so characterized. Even if a signal for a left turn is identical to a set of bodily movements exemplifying the characteristic signalling-for-a-left-turn, it is implausible that we could correlate signals with a particular set of bodily movements or topological features of bodies. A contingent identification of actions with a particular set of kinematical features on empirical grounds would presuppose that law-like correlations can be set up between particular actions and a particular set of kinematical features. But

\textsuperscript{49}This comes out in Fodor, op. cit., pp. 111-120.
the K/A functionalist will find this highly implausible.

K/A functionalism can be attacked from the point of view of an eliminative kinematicist. The eliminative kinematicist will maintain that in a reconstructed language of ontology and science, if action terms did not appear as referential descriptions of human behavior, there would be no loss of powers of prediction and control. K/A relational metaphysics of all kinds will be viewed as being "about as tiresome as theories about 'relations' between astrological and astronomical entities, or demons and germs, or unicorns and narwhals."50 Fodor's ultimate attack on contextualists is by supporting a K/A eliminative position outlined in Section Two of this Chapter. Fodor attacks the contextualist in much the same way that Rorty attacks Fodor.51 For the eliminativist such as Rorty, mind/body functional analysis and the role terms involved are eliminable in principle without loss of explanatory and predictive power. Just as Fodor's reconstructed psychology could eliminate whole classes of nonkinematical behavioral descriptions, Rorty's reconstructed science could eliminate the constructs that arise with mind/body functional analysis. For Rorty, "we


51 Ibid., p. 219.
should not say, as Fodor, for example, does, that 'functional analysis' is indispensable no matter how good physiology gets." 52 Rorty doubts that "there could be any explanatory power gained by reference to the logical states of the machine which might not be had by reference to its structural states." 53 Fodor doubts that there could be any explanatory power gained by reference to a class of action ascriptions (if I am correct, these too can be construed as functional characterizations) which might not be had already by reference to kinematical items.

The point of all this is to suggest that the structural/functional distinction and MF is so widely applicable that it could be used to support a K/A functionalism. And if a mind/body functionalist attempts to undermine K/A functionalism, he may saw off his own buttress. Fodor does just that.

52 Ibid., p. 219.
53 Ibid., p. 218.
CHAPTER VIII
MIND/BODY METAPHYSICS AND THE
METAPHYSICS OF BEHAVIOR

Introduction

In this chapter I will attempt to characterize a set of mind/body metaphysical theories which fall under the rubric of the metaphysics of behavior. That is, I will attempt to show how the mind/body problem could be said to be a problem in the metaphysics of peripheral behavior.

At first it might seem that mind/body metaphysics is out of place in a dissertation on the metaphysics of behavior. Traditional enumerations of mind/body theories have treated behaviorism as just another species of theory among such theories as reductive materialism, dualistic interactionism, parallelism epiphenomenalism and the like. Analytical behaviorism, a linguistic thesis with alleged metaphysical consequences, is usually the only candidate for a behavioristic position.

In this chapter, "metaphysical behaviorism" will be a rubric under which there will be various species of mind/body
theories. If we let 'KA' stand for the union of the K and A-expression classes, we can define "metaphysical behaviorism" as any mind/body theory which is a KA/M identity theory, KA/M eliminativist position or KA/M attribute theory.

These theories are merely extensions of the metaphysics of peripheral behavior. In fact, for the metaphysical behaviorist, the mind/body problem just is a problem in the metaphysics of peripheral behavior.

Metaphysical behaviorism could best be called metaphysical peripheral behaviorism; it is not one theory, but a generic term for which there are almost as many species of theories as there are nonbehavioristic theories traditionally listed in traditional philosophy texts.

Section One - Mind/Body Metaphysics and the Metaphysics of Behavior

Most taxonomies of positions under the rubric 'behaviorism' usually emphasize the analytical/methodological dichotomy. I will continue with this distinction; but in what follows there will be emphasis placed on another distinction.

What I want to emphasize is a distinction which arises at the very outset of an inquiry into mind/body relational metaphysics. The very nature of the problem is in question. On the one hand, one can locate the problem from a
centralist point of view or from a peripheralist point of view. Most traditionally presented mind/body theories are centralist in character. That is, the referents of $M$-expressions are central items. By 'central item' I mean (a) an item which is a nonperipheral behavioral item and (b) an item which causes the occurrence of certain peripheral behaviors or is causally, or attributively related to or in harmony with items which are causes of peripheral behaviors. Let us call any such item a C-item.

For the central state materialist, $M$-items are central states. For the emergent epiphenomenalist, $M$-items are emergent epiphenomena which are C-items. For the dualistic interactionist, $M$-items are identical to the subclass of C-items which causally interact with members of another subclass of C-items. For the functionalist, such as Fodor or Putnam, $M$-items are either identical to material items exemplifying role attributes or $M$-items are identical to the role attributes themselves. In either case, the referents are C-items.

Let us define 'P-item' as an item of peripheral behavior or an attribute of such an item.

Now one can contrast those theories which treat the mind/body problem as a problem that is to be solved within the framework of peripheral behavior and those theories which treat the mind/body problem as essentially involving central behaviors.
Even theories in which it is claimed that M-expressions have no referential role can be differentiated along the peripheralist-centralist lines. For instance, one could, as a conservative but strong eliminativist, claim that M-expressions are not referential but that they do have a role which is tied directly to P-items rather than to C-items. For example, M-expressions may play the same role as disposition terms; and disposition expressions are best construed as syncategorematic parts of law like statements which warrant deductions about P-items. (This, of course, is a non-realist position on dispositions such as that of Gilbert Ryle. D. M. Armstrong is, on the other hand, a realist.)

Let us call any theory that treats the mind/body problem as a peripheral behavioral problem a P/M theory; and those theories which treat the mental as a cause of, or related to the causes of, peripheral behavior, C/M theories.

The difference in these theories will be reflected in

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\[1\] For further discussion see D. M. Armstrong, A Materialist Theory of Mind (London: Routledge and Kegan Paul, 1968) p. 86. "Glass is brittle" may be viewed as a statement about the dispositions of glass. For the realist, this sentence is at least partially analyzable into a categorical sentence or sentences about the molecular make up of glass. For the operationalist, there is no such sentence in the analysis; there are only sentences of the form, "Under conditions C, if such and such were done to the glass, such and such would occur." To say that the brittleness of the glass is referential, is to say that, from the realist point of view, the expression refers to a molecular structure the glass. That molecular structure is described in the categorical sentence of the realist analysis. To say that the
answers to the fundamental question, "What is the nature of the mind/body problem?" Some theorists will see the problem at the outset as a P/M problem, others as a C/M problem.

P/M theories are behavioristic in one sense of the word; but it should be noted that behaviorism is not tied to a particular theory but to the whole battery of P/M theories, and this battery can be constructed along the same lines as C/M theories. One could, for instance, formulate a P/M eliminative position, a P/M identity and P/M attribute theories. In this chapter I will be presenting a P/M functionalism.

P/M theories involve two classes of expressions: expressions which are peripheral behavior expressions and mentalistic expressions. The class of P-expressions will have as members K-expressions and A-expressions. By way of review, K-expressions purport to refer to kinematical items and A-expressions purport to refer to actions. An example of an A-expression is "Mary's crying." The K-expressions here could be "the movement of Mary's chin muscles," "the slight lowering of Mary's eyelids," and "the protrusion of Mary's lower lip."

The class of expressions which purport to be about expression is not referential is to maintain that "brittle" is an operational term and that its only use is to warrant deductions about what might occur were certain conditions to obtain.
intentional actions are best construed as a subclass of \( M \)-expressions. They are mentalistic.\(^2\) It should be noted that we are dealing here with expressions-in-use. Sometimes the only way one can determine whether an expression is an \( A \)-expression or an expression which purports to be about intentional actions, \( I \)-expressions, may be with reference to the context of usage.

\( I \)-expressions are a subset of \( M \)-expressions. Theories of intentional action will be very different depending upon whether the problem of intentional action is viewed as a peripheral behavioral problem, on the one hand, or as a central behavioral problem, on the other. The centralist will attempt to show that the peripheral behavioral items to which \( I \)-expressions refer, are different from other peripheral behavioral items in that the \( I \)-items have a special kind of \( C \)-item as a causal antecedent. The \( P/I \) (peripheralist) theorist will differentiate \( I \)-items from other peripheral behavioral items on grounds other than a causal relation to some \( C \)-item. In fact, talk of \( C \)-items has no value for a \( P/I \) theorist in understanding what an intentional action is.

Now, since the class of \( P \)-expressions contains \( K \)-expressions and \( A \)-expressions, we can let 'KA' stand for the

union class of K and A expressions so that P/M theories can be represented as KA/M theories. This allows one to distinguish between a whole battery of other peripheralistic theories which consists of A/M theories and another which consists of P/M theories. Such categories could be useful in discussions in which the subject matter of mind is being "located" among the expression classes of peripheral behavior. For our present purposes, I will merely use the term 'P/M' to designate peripheralistic theories of mind.

In the next section I shall attempt to describe one of the set of possible P/M theories. It will be P/M functionalism.

Section Two - P/M Functionalism

Both Fodor and Putnam are C/M functionalists. The C-items are either neural structures which realize role universals or the role universals exemplified; and psychological states are identified with C-states which are apt for the production of peripheral behavior. This identification goes beyond minimal functionalism; not only is the structural/functional distinction as it applies to machines a heuristic analogue for the solution of the mind/body problem, the referents of M-expressions are functional states of organisms. Functional states are C-items.

The P/M functionalist, on the other hand, will treat
functional states as P-items. (P-items here are to include peripheral behaviors or the role attributes they realize.) Let us suppose, for instance, that we are trying to determine what thinking is from a P/M functionalist point of view. Thinking is a role universal realized by P-items. Thinking expressions can be treated as a whole subclass of M-expressions involving terms such as "pondering over," "considering," "taking heed of" and the like. To say that John played tennis with concentration is not to say that there were peripheral behaviors of playing tennis on the one hand and central behaviors of concentrating on the other. Rather, concentrating is a role universal which can be realized by a great many heterogeneous peripheral behavior items. There is as much of a concentrating or thinking role as there is a Hamlet role. For the P/M functionalist, my actions can realize this role in the same way that Richard Chamberlain can exemplify the Hamlet role.

Behaviorism can take an Aristotelean turn by identifying mental items with the functionally defined essences or forms of peripheral behavioral items. Functional organization here involves the ordered patterns of behavior, the styles and procedures of people's activities. This notion of functional organization goes beyond the limitations of old line behaviorists who, when they were not talking about the meanings of psychological sentences, identified mental items with ordered patterns of stimuli and responses.
'Functional organization' can be defined in various ways, and the differences between old line behaviorists and P/M functionalists, and between peripheralistic functionalists and centralistic functionalists, can be understood in terms of various ways of describing what constitutes a functional organization. The centralist will, for example, limit himself to a role description of C-items where the role is a causal role in the production of peripheral behavior.

The peripheralistic functionalist will define 'functional organization' in terms of the relation of the whole organism to its social environment. The subject matter of mind is primarily social in character. The rules which constitute the ordering of behavior will be those which define a social practice. Instead of rule-governed C-items, the peripheralist relocates the mind body problem to rule-governed K-items and rule-governed A-items. It should be noted that a wide reading of 'functional organization' and 'Turing machine' would be such that they could involve the functional analysis of groups of persons or persons in social roles. A social network could instantiate a Turing machine as well as a neural network. The peripheralist is merely taking the subject matter of mind out of doors into the social milieu. He relocates the issue.

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3I have John Dewey and George H. Mead in mind here.
In Section One I suggested that functionalist positions could be categorized into peripheralist positions and centralist positions. This could be done because of a possible wide range of notions which could be used to define 'functional organization.' But there is another way to differentiate possible functionalist positions. There are different ways of answering the question, "What is the relation of functional items to structural items?"; and functionalist positions could be categorized with reference to some possible answers to this question.

I have suggested that functional characterization involves the ascription of roles defined with reference to a functional organization or system. Roles are ascribed to occupants. I have also suggested that roles are universals. So the relation that I have been discussing in the explanation of functional analysis is the relation of a universal to its instance. In this section, I shall be discussing other models of structural/functional explication.

It is important that we separate possible positions in structural/functional metaphysics from mind/body metaphysics. Two metaphysicians could have the same structural/functional metaphysics and have very different mind/body positions. Let us suppose, for instance, that philosophers A and B maintain that the structural/functional relation is
the relation of a universal to its instance. A and B are realists on the issue of universals. Philosopher A may maintain that mental items are identical to the special set of role universals. Philosopher B maintains that mental items are identical to the structural items exemplifying the special set of role universals. These are two different mind/body positions; one an attribute theory, the other is closer to the identity theory.

In what follows, I shall be presenting various ways in which the structural/functional distinction itself can be analyzed. What is being discussed below are positions in structural/functional metaphysics, (S/F metaphysics). The nature of a functionalist theory of mind will depend on the functionalist's S/F metaphysics. There are four models of explication that I wish to discuss: (a) matter and form, (b) process or activity and manner of performance, (c) sign and significance, and (d) role and occupant. These are heuristic distinctions and they are not necessarily meant to be mutually exclusive in their application.

a. Matter and Form

The S/F attribute theorist will be a realist on the doctrine of universals. Universals exist, although, for functionalists such as Aristotle, they exist only as common elements in particulars. The nominalist will treat F-expressions as mere vocabulary which may be truly predicated
of S-items. Let us suppose that a centralistic functionalist is an attribute theorist. The S-items he countenances will be only C-items, (e.g. neurological items). His notion of functional explanation would be that of attributing certain psychological functions to corresponding neurological systems. Fodor talks in this way. F-items are functional characteristics exhibited by biochemical systems; they are the "functional aspects of neurological mechanisms."

Aristotle's S/F metaphysics is one in which the functional is the formal, functionally defined essence of the structural. In order to understand Aristotle's theory of mind, it would be necessary to understand his hylomorphism. The structural is related to the functional as matter to form.

One hylomorphic position is the "onion skin" notion of matter and form in which the hylomorphic item at one level may be the matter at another level. Let the symbol "(M-F)" be the name of a hylomorphic entity with a material component, M, and a formal aspect, F. There would be a possibility, according to the onion skin theorist, that (M-F) could, as a complex, exemplify other forms having the same relation to the complex M-F as the form F, of the complex M-F has to its

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5Ibid., p. 109.
6Ibid., p. 115.
material component, M. One could call this the stratified theory of forms whereby there are levels or layers of form and matter like layers of an onion. Certain forms may be "indigenous," in their exemplification to certain levels of hylomorphic complexity. I will exploit this notion of formal strata in the next section entitled "Stratified Functionalism."

b. Activity and Property

Current information theorists, such as Kenneth Sayre, treat functional ascriptions as the ascriptions of mathematical properties describeable in terms of statistical measures of information theory. Sayre is a centralist, locating the mind/body problem as a C/M problem. (See Section One of this chapter) Since statistical role properties are not physical properties, and since M-items are identical to statistical measures in information theory, Sayre considers himself an immaterialist. Here is a very good example of how two philosophers could hold the same S/F metaphysical position and still disagree on their mind/body metaphysics. Sayre, instead of identifying M-items with S-items identifies M-items with F-items, the statistical properties of neural events.

Sayre also talks as if M-items are forms of a process. There is a distinction which Sayre slurs. At times he identifies consciousness with information processing; at other times he identifies consciousness with the form of information processing. These are different positions in that in the former case, processing itself becomes a universal which could be exemplified by various neural activities.

Consciousness is the processing and not the activities in the nervous system by which the processing occurs.\(^8\)

In the next paragraph Sayre expresses the thesis that "consciousness is a form of information processing"; it is "a way of processing information arriving at higher levels of the brain through various sensory channels."\(^9\)

Grammatically speaking, property words modifying performances, activities, or processes can be construed as adjectives or adverbs. And one could construe Sayre's position, in which consciousness is the form of an activity, as centralist adverbial theory. The mentalistic language, if referential, refers to a form of an activity.

The peripheralistic functionalist may also give the mentalistic terms and adverbial role. John Dewey, for instance, describes terms such as 'intelligence' as an

\(^8\)Ibid., p. 209.

\(^9\)Ibid., p. 209.
adverbial role term. 'Mind' does not refer to a substance or process, but forms of activity, ways of acting. For Dewey, "intelligence is incarnate in overt action, using things as means to affect other things. 'Thought,' reason, intelligence, whatever word we choose to use is existentially an adjective (or better, an adverb), not a noun."10 This theme is also reflected in Ryle, especially in his recent works on thinking.

In short, the thinking of the non-absent-minded, non-delirious talker is not a separate act or procession of acts, or a separate procession of anything's. The verbs 'to think,' 'give one's mind to,' etc., as used of him in this context, are adverbial verbs, like my manufactured verb 'to vigilate.' His thinking is not an autonomous action or activity; nor a concurrent procession of autonomous anythings.11

Consciousness is the formal aspect of structural variations and is not to be identified with structural sequences or underlying activities. It is interesting to note that Chisholm's adverbial theory of phenomenal/physical metaphysics also rests on the distinction between process or activity and the way in which the process or activity


Sayre presents an example of the distinction between process and the manner of processing in the following quotation. In this example "Pasteur process" is itself used as a universal which can be realized by particular motions or activities.

To describe the Pasteur process is to describe the results to be achieved at various stages in the process and not merely to describe the particular motions or activities one might go through in achieving these results. Similarly, in saying that consciousness is a brain process, we might mean that consciousness is one way the brain has of doing something that might be done by different mechanisms at different times, and perhaps might even be done by different procedures in different performing systems.13

C. Sign and Significance

For D. C. Dennett, the structural/functional relation is that of content-bearer to content, i.e., sign to significance.

The ideal picture, then, is of content being ascribed to structures, events and states in the brain on the basis of a determination of origins in stimulation and eventual appropriate behavioural effects, such ascriptions being essentially a heuristic overlay of the extensional


13Sayre, op. cit., p. 209.
theory rather than intervening variables of the theory.\textsuperscript{14}

Functional ascription has no predictive value since it is an \textit{ex post facto} interpretation of neural events made after predictions have already been made on the basis of physiology.

Ascriptions of content always presuppose specific predictions in the extensional account, and hence the Intentional level of explanation can itself have no predictive capacity.\textsuperscript{15}

This again underscores the point that the meaning ascription or interpretation has only heuristic worth for physiologists; it provides the physiologists with "an invaluable heuristic advantage."\textsuperscript{16}

If they [physiologists] cannot view neural events as signals or reports or messages, they are left with almost no view of brain function at all.\textsuperscript{17}

Such an emphasis on the heuristic worth of functional characterization seems to place the value of ascriptions of content not on prediction and control but rather on the improvement of "intuitive understanding of the system."\textsuperscript{18}

\begin{thebibliography}{10}
\bibitem{15}Ibid., p. 85.
\bibitem{16}Ibid., p. 85.
\bibitem{17}Ibid., p. 79.
\bibitem{18}Ibid., p. 79.
\end{thebibliography}
more positivistic philosophers of science would allow for
the heuristic value of the functional orientation. Richard
S. Rudner suggests that such an orientation is best eval­
uated in terms of the sociology and psychology of science. The
functional orientation is to be evaluated not in terms of its role
in the context of justification but rather the context of discovery.

For Dennett, the ascription of content, or the intention­
tional characterization of neural phenomenon, has much in
common with animistic characterizations of rivers, clouds,
and fires. The ascription of content to, or the intentional
characterization of neural systems and the structural fea­
tures of machines is still a form of animism. "A computer
is no more really an information processor than a river
really had desires." 

Dennett appears to be an S/F strong eliminativist. 'F'
stands for the class of role characterizations and 'S'
stands for the class of expressions referring to structural
items. The class of F-expressions can, according to Dennett,
be eliminated from the language of ontology. F-expressions

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20 Ibid., p. 109.
21 Dennett, op. cit., p. 90.
do not refer. F-expressions are not necessary for prediction and control either.

Dennett accepts MF or minimal functionalism; but minimal functionalism is compatible with eliminative materialism. "Given this interpretation, it is in one sense true that there is no relation between pains and neural impulses, because there are no pains; 'pain' does not refer."22

It is interesting to note that some peripheralistic functionalists (i.e., those functionalists who relocate the mind/body problem as being a P/M problem rather than a C/M problem) have taken advantage of the sign and significance interpretation of S/F metaphysics. Instead of ascribing content to C-items, however, the proper ascription of the mentalistic language will be to P-items. P-items, as social behaviors, are themselves functionally characterized movements. The ascription of A-expressions are role ascriptions where the functional organization involves the ordered pattern of behavior of the whole organism in its relation to its environment. Peripheralists such as Mead and Dewey, emphasize the social context. Significance is itself a social category, a triadic relation between sign, content and interpreter. The application of mentalistic content to C-items (for the peripheralist) is a mislocation of mentalistic ascriptions. M-expressions as role ascriptions are

22Ibid., p. 96.
indigenous to the social functional organization rather than
the functional organization of C-items. As we suggested
earlier, a functional system may be described at various
"levels" of behavior. Dewey and Mead located their func-
tionalism at the level of social behavior rather than at the
level of central behavior. Stimulus and response for Dewey
was taken out of the narrower context of centralism and
placed in a wider context of organism-in-problem-solving-
situations. It is interesting to note that the notions of
'stimulation' and 'response' can be construed differently by
the peripheralist and the centralist. A stimulus can be
construed as a mere sensory input described in physiological
terms and a response can be construed as a mere kinematical
item. If, however, the functional organization described
involves the social context, stimulus may become, as it does
for Dewey, a cognition of a problem; and response is the
adaptive resolution of an organism for the maintenance of
some organized coordination.\(^{23}\) The centralist functionalist
will identify the subject matter of mind with roles ascribed
to C-items for the production of behavior thinly described.
The peripheralist will identify the subject matter of mind
with roles ascribed to P-items given the adaptive behavior
of an organism to its social environment.

\(^{23}\) See H. S. Thayer Meaning and Action, Bobbs-Merrill
Co., In., 1968 pp. 183-190 for a discussion of Dewey rela-
tive to this issue.
Peripheralists such as Dewey and Mead have exploited the sign/significance interpretation of the structural/functional distinction. Some functionalists exploit a theory of meaning whereby more than units of language can have meaning. Just as the centralist can ascribe meaning to C-items (D. C. Dennett), the peripheralistic functionalist will ascribe meaning to P-items. This is not a synonymy relation where words are matched with sentences. And no number of antibehaviorist moves showing a lack of logical equivalence or logical implication between mentalistic sentences and behavioral sentences will undermine this sort of meaning relation. Meaning here is not a dyadic relation between word and object, or word and phrase, or sentence and sentence. Meaning involves sign, significance, and interpreter. To ascribe meaning is to interpret signs, and the interpretation of behavioral signs need not involve expressions synonymous with sentences describing behavior.

d. Role and Occupant

Terms applying to functional characteristics are what Reichenbach calls usage-predicates. I prefer to call them role predicates.

When a girl winds a scarf around her head, we say that she wears a turban. She could use the same scarf to make a sling for somebody's broken arm. Is the turban the same thing as the sling? We would not say that. Although both are made of the same
scarf, we call them different things because in the two cases the scarf is used in different ways. A turban is a scarf in a certain usage; a sling is a scarf in another usage. Words like 'turban' and 'sling,' therefore, may be called usage-predicates; they refer to a thing in combination with its usage.\(^{24}\)

An interesting thing about role ascriptions is that no set of properties of structural items is causally sufficient for the obtaining of role characterizations. No set of properties of scarves is in itself causally sufficient for a scarf's being a turban. If we add the property described by "playing the turban role" to a scarf in order to have a causally sufficient set, we no longer have a nontrivial causal relationship between being a scarf and being a turban. Since "'turban' is a role term applicable to any item which plays the turban role" is a linguistic convention, it would be a matter of linguistic convention that what items play turban roles are turbans. Furthermore there are no properties of scarves which are causally sufficient for their exemplifying the property, playing-the-turban-role. There are no law-like correlations between scarf properties and the turban role characteristic; it is an accident of human convention that scarves ever play turban roles in much the same way that it is an accident of human convention that

a gesture of two fingers in a vee-shape is role characterized as a victory sign. There is a gap here between an item as a structural item and an item role characterized in a conventional context. One of the requirements of mind/body identity theories, in which the statement of identity is contingent, is that it be possible to have law like correlations between alleged M-items and physical items. If, however, the relation is that of a role characterization to a structural characterization, there could be no such psycho-physical laws even though it might be the case that one and the same item is being characterized. A turban may be a scarf, but there are no causal laws between scarf properties and the property of playing the turban role. The latter is an accidental property of scarves in much the same way as playing-the-victory-sign-role is an accidental property of Dick's outstretched fingers. Now this is not to say that there are not causally necessary properties for something to be able to play the turban role. If a scarf were not wrappable, for instance, it could not play the turban role. It turns out that a functionalist, if he is to be an identity theorist, does not hope to find law-like correlations between allegedly numerically diverse items, assuming

25 An interesting possibility in the theory of meaning is that meanings are functional or role universals realized by pieces of language. This would be a platonization of the use-theory of meaning.
them to be one and the same on grounds of simplicity. There can be no promissory note accepted by the functionalist indicating that tomorrow's physiologists will correlate, say, the having of sensations with a particular state of the brain.

Now the scarf-turban example is important in explicating what I will call stratified functionalism. A stratified functionalist is one who maintains that there are various strata of occupants for role characterization. There are various levels of abstraction for characterizing and specifying the structural item. 'Scarf' may itself be viewed as a role expression which, along with 'turban' and 'sling,' could be used to role characterize one and the same piece of cloth. 'Sling,' 'turban' and 'scarf' could all be role predicates where the structural item is a long, rectangular piece of cloth.

We could define a notion of functional basicness here. A role characteristic $C_1$ is functionally more basic than role characteristic $C_2$ if and only if whatever realizes $C_2$ also realizes $C_1$ but not vice versa. The notion of functional basicness can be used to explicate the notion of levels of abstraction in functional characterization.

26 We could devise a notion of functional basicness in which expressions are stratified. Such a notion would be pragmatical rather than ontological. Here one would be talking about species of conceptual dependence as in Chapter VI.
e. Structural/Functional Stratification

The structural/functional distinction, if construed in any of the three ways in section three, can be viewed as a multi-leveled, nested, or stratified distinction. Construed as Aristotelean hylomorphism, one could represent this many-leveled distinction by the following language. Let 
\[(M)F_1\]
represent a material component, in parentheses, and its form, a role universal. We could call such a form a first order form. 
\[((M)F_1)F_2\]
could be used to represent another hylomorphic complex and 
\[((M)F_1)F_2)F_3\]
could be used to represent an even more complex hylomorphic complex. In any case, whatever is contained in parentheses would be the material component of the hylomorphic complex. The functional or formal aspect would be represented by the "highest leveled" form. What counts as formal and what counts as material depends upon the level hylomorphic complexity that we are discussing. There are no truly formal aspects or truly material ones.

Sign and content can be viewed as nested also. Content can be understood as functional significance; suppose that the functional significance of a wood slab and spring mechanism can be expressed by, 'being a mousetrap.' The mechanism plays a certain role in the trapping of mice. Now,

In order for expression \(E_2\) to be used in role \(R_1\), expression \(E_1\) must be used in role \(R_2\) but not vice versa.
imagine that the rules of baseball require mousetraps as bases. The functional significance of mousetraps during such a baseball game would then be describable in terms of their role in a baseball game. In such a case 'mousetrap' would refer to a structural item. Being a base would be a formal aspect. The formal is itself determined by the level of functional organization within which an item is being described. There are possible orders of functional organization in which one and the same item can be functionally characterized. A category mistake is made when we ask about a thing, characterized at one level of functional organization, questions which are relevant to that thing only at another level of functional organization. Imagine some humorously perverse or ignorant person, who upon looking at the baseball game described above, wondered why grown men would be sliding into mousetraps; and imagine the same person saying, "I see mousetraps, but I do not see any bases!" (In the same way a humorously perverse philosopher could say, "I see John's bodily movements, but not his action of shooting a basket." At another level of functional organization, the remark might be, "I see John's shooting the basket, his dribbling and his careful handling of the ball, but I do not see him thinking!")

If one sees the structural/functional distinction as applicable to various levels of abstraction, one is faced with a very important question. At what level of functional
organization and consequent functional characterization are we to identity mentalistic items? The variant answers to this will separate the centralistic functionalist from the peripheralistic functionalist. One of the central weaknesses of Fodor and Putnam's functionalism is that they give us no justification for their centralism. Ironically, many arguments that they do give to support their functionalism could be used to support functionalism at any level. For example, arguments used to undermine a centralist, C/M identity theory could be used to undermine a P/M identity theory. But no argument is given to support C/M functionalism over P/M functionalism. William Kalke has made the point that "in order to determine the functional organization of a [physical-chemical] system you must first decide not only on a boundary for the system, but also on a level of abstraction for describing its behavior."27 Kalke's criticism of Putnam and Fodor is used to make the point that behavior cannot be considered as a given. (The point of my dissertation is to underscore the claim that behavior cannot be taken as a given.) Kalke uses this point to make the claim that there are various levels of functional characterization of physical chemical systems and

For any given system, the point at which the level of abstraction and the boundary are most usefully fixed is by no means uniquely determined— but will vary, dependent on any number of pragmatic considerations.  

Now, the point I wish to make is that what we say that a functional characterization is a characterization of, is itself open to consideration. I wish to go beyond Kalke. Whereas Kalke argues that "there is no absolute structural/functional distinction among the states and properties that science uses to characterize P-C [physical-chemical] systems," I want to argue that the substantival items functionally characterized need not be central physical-chemical items. If one takes the structural/functional distinction into the arena of peripheral behavior, one could be a P/M functionalist rather than a C/M functionalist. That is, one could be a peripheralistic functionalist maintaining that the functional characterization of C-items (in this case physical-chemical items) is irrelevant to the solution of mind/body metaphysics. Kalke's point is that physical-chemical items can be role-characterized at various levels, and therefore claims of sameness of functional organization (functional isomorphism) are trivializable. Nearly any two physical-chemical systems could be considered functionally

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^28 Ibid., p. 88.

^29 Ibid., p. 89.
isomorphic under some description fixing the behavior and boundary of each. 30 But the point I wish to make is somewhat different. Whereas Kalke assumes that the "occupants" of role characterizations at various levels are physical-chemical items, I am suggesting that there is not one level of occupant any more than there is one level of role characterization. This reflects a more radically pragmatic point of view than that of Kalke. What we count as occupants is in part determined by the functional organization that concerns us.31 The K/A functionalist will treat K-items as role occupants. The A/M functionalist will treat A-items as occupants which realize roles. 'Thinking,' for example, may be viewed as a role predicate more properly applied to actions than to neural states. And action expressions can themselves be viewed as role characterizations of kinematical items. It is interesting to note that centralistic functionalists are willing to admit a wide range of possible occupants as long as they are C-items. They could be the C-items of Martians and mice; and if the C-items realized the same role, say, for instance, the pain role, Martian pain would not be different from mouse pain.32 But

30 Ibid., p. 91.

31 It is not an accident that Reichenbach introduces his section on the arbitrariness of individuals by talking about usage predicates, op. cit., p. 267.

32 Hilary Putnam shows such tendencies in "MLSM"
why should such a liberal outlook stop with C-items? There is no reason to think that physical-chemical characterizations cannot themselves be stratified as to their functional basicness. So even if the occupants of role characterizations are physical-chemical C-items, we may still ask the centralist about which level of functional characterization provides the individuals and their functional characteristics relevant to a solution of the mind/body problem. The progress of science may be marked with a growing range of C-items (perhaps nonneuralogical candidates) which will be candidates for functional characterization.

The most formal level of characterization is, of course, mathematical. Functional characteristics are for Sayre the statistical properties or information properties of the nervous system.

So far, I have suggested that mind/body functionalism can be taken "out of doors" into the realm of P-items. P-items are peripheral behavioral items. But there are other levels of functional characterization and organization where, instead of P-items, classes of persons in historical processes are functionally characterized. Such a location of


33Sayre, op. cit., p. 198.
the subject matter of mind would be Hegelian in character. Rationality here is a functional characteristic of groups of people in the tugs and pulls of historical development. The subject matter of mind is neither subpersonal nor personal, but, rather, suprapersonal. It is interesting to note that Hegel could have been a minimal functionalist, accepting the machine analogue but substituting groups of person for mechanistic structural items. He relocated the subject matter of mind. For Hegel, the subject matter of consciousness involves the functional characteristics of the range of things that occupy roles in various dialectical processes. His *Phenomenology of Mind* is the presentation of the natural history of consciousness realized by historical dialectical processes.

Once again this points up the necessity of justifying why M-expressions refer to role universals (or the items which realize them) at one particular level of abstraction on the structural/functional hierarchy.

Section Four - C/M Functionalism vs. P/M Functionalism

Throughout this dissertation I have been cataloging notions of basicness such that kinematical items could be said to be basic. In this chapter an attempt was made to present a notion of functional basicness such that it could be said that actions are functionally secondary to kinematical
items. In Chapter VII, I presented a K/A functionalism in which A-expressions refer to certain role characterizations of K-items.

Now, to say that the metaphysics of mind is a part of the metaphysics of peripheral behavior is to say that the mind/body problem is a P/M problem. If the P/M functionalist treats actions as structural items, the subject matter of mind is to actions what actions are to kinematical items. What we have here is a stratified functionalism in which K-items are functionally basic. Both nonmental actions and mental items are functionally secondary to K-items.

The P/M functionalist, instead of identifying psychological properties with the role properties of C-items (or C-items that realize role properties), will see psychological properties as a stratum of functional role properties with its own legitimacy. Psychology, instead of being identified with the functional organization of the brain will be identified with the functional organization of human action. Here the subject matter of psychology cannot be disengaged from the role characterizations of peripheral behaviors. C/M functionalism identifies the subject matter of psychology with the functional organization of the brain.

A functional organization may be highly artifactitious in character. The role terms 'scarf' or 'turban' or 'baseball' are examples of role terms which have significance because of certain artifactitious roles or conventions of
human behavior. It is because we can treat pieces of cloth scarf-ly or turban-ly, and it is because we can treat spherical, skin-covered items baseball-ly that 'scarf' 'turban' and 'baseball' have the significance that they do.

The functional organization which provides the context for the role characterization of human behavior may vary with the characterizer's interests. What role characterization is relevant depends upon the context of interest. Furthermore, just as 'scarf' can be a role characterization of a bit of muslin, a burlap sack, or a piece of silk, psychological predicates can be used as role characterizations of a wide variety of behavior. In Lower Putnamania it may be the case that, given the human values, ideology, and socio-economic conditions, only burlap sacks are candidates for scarf roles. In Lower Putnamania it may be the case that only the activity of getting over 130 on Putnamanian IQ tests (authorized by fifteen captains of industry) will play the intelligence role. In Upper Putnamania where a popular revolution has overthrown the government (dominated by captains of industry), behavior which realizes the intelligence role is determined by various soviets.

The distinction that is being uncovered here is that between artifactitious roles and natural roles. Role characterizations of behavior are, for the most part, artifactitious. Both the K/A functionalists and KA/M functionalists underscore the gap between nature and convention.
Social roles exist only insofar as they are created by human beings; natural roles exist independently of human creativity.

The strength of P/M functionalism over C/M functionalism is that P/M functionalism can account for the role of ideology and value in the ascription of psychological predicates such as predicates of intelligence and psychopathology. Such role properties are ascribed to behavior with an eye toward social behavioral norms sustained by tacit recognition. Deviance from these norms provide us with a class of what might be called dysfunctional characteristics (as opposed to functional characteristics). Psychopathological properties are dysfunctional characteristics applied to people when they do not fulfill certain social roles adequately or when they cannot perform them at all.

The P/M functionalist will, I think, be more sensitive to the normative aspects of psychology in which current ideologies bestow blessings upon certain behavioral roles and not others. In a pluralistic, open society there will be a number of competing psychologies defining what constitutes dysfunctional behavior unless, of course, there is an ideological unity. There are, for instance, psychologists who view the virginity of single men over twenty, the passing out of gospel tracts predicting the Second Coming, the pouring of duck's blood on draft records, and the release of the Pentagon Papers as actions which signify mental illness.
There is a growing appreciation among leftists for supplanting an "elitist" psychology with an "egalitarian" one. Putnam, for example, wants to supplant a bourgeoisie notion of intelligence for a collectivist one. "Since the psychology of the bourgeoisie is very deeply imbedded in people's consciousness, this will be possible only if the kind of elitist psychology we have just discussed is fully exposed and destroyed." Putnam talks of collective intelligence and describes how "groups of people aiding each other can do anything if they have to."

Every popular revolution in history makes this same point—that ordinary people in a revolution can perform feats of organization, planning, strategy, etc.

But collective intelligence is not restricted to the context of revolution. Consider the following question: suppose the workers in a shipyard were set the task of redesigning the ship they were building (and, if necessary, the yard itself). Could ordinary workers figure out how to do it? A priori, to answer 'yes' would be utopian. But precisely this feat was accomplished in China during the cultural revolution.35

Collectivism, with its emphasis on group solidarity and collective security, when carried to its extreme will tend


to undermine the value of personal autonomy and those activities of secluded creativity. Thomas Szasz, in his *Ideology and Insanity* suggests that

The collectivist ethic is exemplified in the Soviet Union, as in the case of Iosif Brodsky. A twenty-four-year-old Jewish poet, Brodsky was brought to trial in Leningrad for "pursuing a parasitic way of life." The charge stems from "a Soviet legal concept that was enacted into law in 1961 to permit the exiling of city residents not performing 'socially useful labor'."36

In a transcript of the trial smuggled out of Russia it is written that the judge ordered Brodsky to be sent "for an official psychiatric examination during which it will be determined whether Brodsky is suffering from some sort of psychological illness or not and whether this illness will prevent Brodsky from being sent to a distant locality for forced labor."37

In this chapter (Section Two) I distinguished among a subpersonal, a personal, and a suprapersonal functionalism. The suprapersonal functionalism is one in which the subject matter of psychology is not individual behavior and its roles, but rather the behavior of collections of individuals. The structural items are neither neurological nor kinematical but rather collections of people in social roles. This

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37Ibid., p. 29.
I described as Hegelian in character.

Perhaps one reason for accepting a collectivist psychology is the suprapersonal philosophy of mind. Here collectivist psychology is not one among competing personal-level psychologies but a rejection of personal-level psychology for suprapersonal psychology. Suprapersonal functionalism would, perhaps, be a good candidate for the Official Philosophy of Mind to be taught in the post-revolutionary academy because it would tend to support a collectivist psychology. (This is assuming, of course, that there would still be professional philosophers who could get away from the shipyards long enough to teach the subject.)

Section Five - A Critique of P/M Functionalism

Although P/M functionalism can more adequately account for the value laden status of certain psychological concepts (such as those of intelligence and psychopathology), other concepts such as the concept of hunger seem to be very different; such concepts as hunger seem to be much closer to physiological explanation. Furthermore, the attribution of 'pain' does not vary with ideology in the way that 'intelligence' and 'mentally ill' do. What must be given up here is the assumption that all M-expressions can be analyzed at one level of functional organization or in one way. The roles one exemplifies qua biological being are not the roles
one exemplifies qua person. But for a stratified functionalist this presents no problem.

One can, in viewing the various levels of functional characterization, come to this conclusion of William Kalke:

In psychology, fixing boundaries and levels of abstraction is more a confession of ignorance than a deliberate methodological choice. 38

But this claim betrays a prejudice which treats the functional characterizations at a certain level of abstraction as being without methodological merit. Such prejudices could send one off in search for the ultimate structural items, the true individuals. What seems to be happening here is that one level of functional characterization is being endowed with epistemological and/or ontological significance. To join in the search for such a level is like joining in Aristotle's search for primary matter. The search for true individuals will be, from the pragmatic point of view, an unrewarding search.

Psychopathological M-expressions will, I think, have a radically different kind of analysis than, say, 'pain' and 'hunger' given the various levels of functional organization within which such terms are role terms. Kalke seems to argue against C/M functionalism on the basis of there being levels of functional organization. He then appears to

assume that this is a weakness of functionalism in general. But, the stratified functionalist would not only admit to levels of functional organization, but use such a notion as a cornerstone of his position.
CHAPTER IX

CONCLUSION

Section One - Methodological Considerations

Throughout this dissertation an attempt has been made to show the relationship of kinematical items to actions. The basic metaphysical tools used were (a) patterns of metaphysical analysis (borrowed from mind/body relational metaphysics) and (b) various notions of basicness such that movements could be said to be basic to actions.

I have maintained that there are several categories of peripheral behavior descriptions and that the same metaphysical and epistemological solutions may be attempted at different category gaps. An attempt has been made to explore the pattern of metaphysical responses that could arise at any key category gap. The gap constituting the K/A problem involved kinematic descriptions and nonkinematic descriptions of peripheral behavior.

It was suggested that there is a pattern of epistemological responses which are applicable to the K/A gap. The
solution of the epistemological problems surrounding the K/A gap turns, in part, on solutions in K/A metaphysics. And certain solutions to K/A metaphysics are not neutral with regard to various solutions of the problem of other minds. I suggested that ascriptions of A-expressions to John's peripheral behavior (e.g. pain behavior) may be just as epistemologically suspect as ascriptions of pain to John. (Here I am talking about those cases in which the same expression is used to describe John's behavior and his mental state.) This position is to be contrasted with a behaviorist position in which it is claimed that there is a logical tie between such A-ascriptions and mentalistic ascriptions. It is still possible here to claim that John's pain behavior and John's pain are contingently related diverse events. What has been suggested is that high level descriptions of behavior are just as inscrutable as ascriptions of mentalistic events. This point may be used to lend inductive support to a behaviorist point of view (e.g. theoretical behaviorism in which 'pain' is a theoretical construct used to explain behavior) but this position does not entail such a behaviorism. Even if the reader does not find his epistemological position plausible, there is another very important point that can be made; and that is that epistemological issues can be raised at every categorial gap.

The problem of other minds has overshadowed the problem of my own and other gigglings, yawnings, laughings,
trippings, etc. because it is assumed that gigglings and the like are observable. What is in question here is the level of behavioral description that constitutes the observation language. There do seem to be categorial breaks in the language of peripheral behavior such that, say, giggling ascriptions are inferential judgments based on kinematical judgments. The possible regress in the search for the language of observation and noninferential judgment will, I think, raise thorny issues for those who rely heavily on some kind of a behavioral observation language. The observation language may turn out to be the language of least descriptive commitment; here one uses a logical category to determine what can be observed; this criterion is, I think, an irrelevant index.

The main problems in this dissertation have been metaphysical in character. But even questions as to the nature of metaphysics (and hard core ontology) have been raised in this work. Various candidates for ontological or metaphysical basicness were seen to be determined with an eye toward epistemology and pragmatics. This is especially clear with regard to what Strawson calls descriptive metaphysics. Epistemology and ontology are born when certain description classes, delimited on pragmatical grounds, are baptized with ontic or epistemic significance. In the history of philosophy, words such as 'exist,' 'real,' 'observable,' 'individual' have been used after the baptism of a certain
pragmatical stratum of expressions (and sentences using them) with ontological and epistemic significance.

Pragmatics, as I am defining it, is the functional categorization of expressions with reference to their roles in human activities such as explaining, describing, inferring, justifying, predicting, and scientific inquiry in general. The referents of conceptually basic expressions are endowed with ontological basicness. For example, certain classes of expressions may be said to be referential if they are explanatorily basic. A description of what expressions are referential may be determined by reference to the roles of expressions in the best theory, a study of formal roles in the context of inquiry.

Now it might be thought that pragmatics provides an index for the way the world really is. The ontological and nonsemantical question which arises here is "What are the true referents?" And to answer this question some have turned to epistemology (and then to pragmatics) and some have turned directly to pragmatics. Epistemology after all, will, when thoroughly dissected, turn out to be an unholy alliance between the psychology of cognition and discovery, on the one hand, and pragmatics on the other.¹ Pragmatics

¹See Gilbert Ryle, Concept of Mind (Barnes & Noble, 1949), p. 317 for a similar appraisal of epistemology.
has been in the background, for example, when the pragmati-
cal category of defineability basicness is used as a cri-
terion for picking out cognitive simples or atoms. (A term
is defineability basic if it is used to define other terms
but is not defineable by any.) Here, expressions are cate-
gorized by their formal role in the activity of defining.
By the use of such a criterion, the alleged referents of
'red,' 'green,' 'square' and 'good' could turn out to be
cognitive simples. Inferential basicness and justificatory
basicness can be used to stratify and categorize whole sen-
tences according to their roles in inferential and belief-
justifying activities. Restrictions on the use of 'exists'
may be made with reference to pragmatical criteria. I have
already provided an example of this side-long glance at
pragmatics whereby D. C. Dennett claims that voices do not
exist. 'Voice' is not explanatorily basic with respect to
'larynx,' 'air vibration' and the like.

The somewhat awesome consequences to all this is that
what one might call hard core ontology is born with the bap-
tism of a pragmatical stratum, i.e., a specified class of
basic expressions or sentences delimited by pragmatical no-
tions of basicness.

The most interesting and, at times, covert activity,
is not the ontic baptism and the delimitation of true in-
dividuals or what really exists, but rather uncovering and
codifying the pragmatical criteria used to stratify the
language.

Perhaps we can, contra Strawson, still separate hard core ontology from Strawsonian descriptive metaphysics. Strawson is ensconced in what might be called the pragmatics of identificatory activity. But hard core ontological baptisms are made with reference to the pragmatics of scientific explanation. Strawson is in the right ball park in that he realizes that an important task of the metaphysician is pragmatical, the functional categorization of expression classes given their roles in human activity.

Theory of reference is a parasitic inquiry in that baptisms of expression classes as being referential are made with side-long glances at pragmatics.

There are two levels of ontological inquiry. At one level, sets of expressions are determined to be referential and restrictions are placed on 'exist.' The sets of expressions may be delimited by pragmatical notions of basicness. At another level, the alleged existing things are then given ontological status with reference to some asymmetrical ir-reflexive and transitive relation used to define basicness. The latter notions of basicness are not pragmatical (i.e., not about the formal roles of expressions in key human activities), but rather a relation among the referents of expressions. The latter notions of basicness are used to determine the ontological status of existent things. In any case, basicness as pragmatical or as a relation among
existent things is, perhaps, the central concept around which metaphysics revolves.

Section Two - Relational Metaphysics

Relational metaphysical positions are made up of various patterns of reference for ordered pairs of expressions. I have attempted to present a set of theories of relational metaphysics in which the two classes of expressions, the K and A classes, are relevant. Patterns of reference can be the metaphysical tools at various key categorial gaps. The various patterns of reference have been most highly developed in the resolution of the mind/body problem. I relied on these to present and explicate possible theories in the metaphysics of behavior.

I tried to explain in Chapters III and IV, the issues surrounding a K/A identity theory. In Chapter V, I catalogued various notions of basicness looking for ways in which K-items could be said to be basic. I also suggested that the presupposition behind such attempts to uncover basic K-items is incompatible with K/A identity theory. (Goldman, a basic act theorist, was characterized as a K/A parallelist in Chapter II.)

In Chapter VI, an attempt was made to catalogue various notions of basicness that could be used to define ontological basicness in a descriptive metaphysics of behavior.
Multiple-language Kinematicism was discussed as a related K/A theory.

In Chapter VII, K/A eliminative kinematicism and K/A functionalism were explicated as two possible K/A theories.

In Chapter VIII, I attempted to show that there is a dispute among mind/body theorists as to the very nature of the mind/body problem. That is, the mind/body problem for some is the relational metaphysics such that the nonmentalist expressions and the mentalistic expressions are about peripheral behavior. For others, the set of nonmentalist expressions is purported to refer to C-items rather than P-items. Those who maintain that the mind/body problem is a P/M problem, treat the mind/body problem as a problem in the relational metaphysics of peripheral behavior. Such an analysis puts the mind/body problem squarely within the scope of this dissertation on the metaphysics of peripheral behavior. P/M metaphysicians have all the patterns of reference open to them as C/M metaphysicians. One can be, for instance, a P/M identity theorist, a P/M strong eliminativist, a P/M pre-established harmonist, a P/M epiphenomenalist or a P/M functionalist. Some of these theories will be most implausible.

An attempt was made to show what a P/M functionalist position would be like. I contrasted C/M functionalism with P/M functionalism and argued that P/M functionalism could explain the value-laden status of the use of certain
psychological concepts better than C/M functionalism. Both the P/M functionalist and the C/M functionalist assume that the explications of all psychological expressions are indigenous to one level of functional organization. I found this to be an implausible position and argued for heterogeneity in the analysis of M-expressions.

One assumption throughout this dissertation is that similar patterns of metaphysical and epistemological analysis can be used for key categorial gaps. One such gap is that between moral and natural expressions. It would, I think, be interesting to investigate the relational metaphysics of morals (natural/moral relational metaphysics) in the same way that I have investigated kinematic/action relational metaphysics. If natural items are P-items, the metaphysics of morals can be seen to be a branch of the metaphysics of peripheral behavior. A natural/moral functionalist theory could, for example, treat 'good' as referring to a role universal realized by P-items. To explain the nature of the functional organization in which 'good' has significance would be the task of such an ethicist. The notion of a constitutive rule has, I think, been used to do this.
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