

Practice and Object

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A Dissertation
Presented to the
Faculty of Princeton University
In Candidacy For the Degree
of Doctor of Philosophy

Recommended for Acceptance by the
Department of
Philosophy

August, 1976

77-6037

BRANDOM, Robert Boyce, 1950-
PRACTICE AND OBJECT.

Princeton University, Ph.D., 1977
Philosophy

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Acknowledgement

For Richard Rorty, teacher and friend,
whose conversations always show me how
important an eye on the whole culture can
be to the enrichment and transformation
of each of its traditions.

10/14/76

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Chapter I; The Project of Pragmatism

This thesis is an attempt to describe, defend, and develop a view of the nature of human cognitive functioning which has played a crucial role in the progress of philosophy over the past few generations. The view is worthy of our concern because, although seldom explicitly acknowledged (and never stated with anything like the precision of this essay), it is, I believe, the source of many of the most exciting insights and doctrines of such diverse and important thinkers as Dewey, the later Wittgenstein, Quine, and Sellars. I call the view pragmatism, for two reasons. First, because it approaches language and culture, those respects in which human beings have a better understanding of their world and are better able to get around in it than the beasts of the field, as above all a matter of the social practices people engage in. So the term is etymologically appropriate. Second, the view we will consider presents a detailed elaboration of what I think is the best wisdom which Peirce, James, and Mead, as well as Dewey offer us, often in obscure and confused ways under the title of "pragmatism". In a sense, then, the thesis is a vindication of American pragmatism, an attempt to show how much can be made of its leading ideas (and indeed, how much already has been made of them, even by figures like Wittgenstein who were not directly influenced by it). I have not undertaken to accomplish this vindication by means of historical interpretation of the masters of the Golden Age, however. (The only official American pragmatist whose views receive detailed consideration is Dewey.) Rather I have sought, first of all to specify the pragmatic perspective sufficiently clearly that we may distinguish within a thinker's works those doctrines attributable to such a perspective and those not (and this is a task every bit as urgent for understanding avowed pragmatists like James and Dewey as

for understanding those, like Quine, who would not be content with that label), and second and most important, to show what novel illumination this perspective has to offer us on currently vexed issues. I am particularly concerned to lay to rest the long-standing mutual animus between devotees of the kind of pragmatism I am championing in this essay and realists who suspect any notion of the social of being a notion of the mental in disguise, and accordingly view pragmatism as just another paradoxical idealism or non-explanatory conventionalism. The pragmatists, as we shall see, are entitled to ask a number of searching questions about the foundations—the cash value in actual human practices—of most of the realist's favorite notions. But when satisfactory answers to these questions have not been forthcoming, the pragmatists have typically responded by rejecting such essentials of the realistic world-picture as the notion of an objectively real world which is the cause of sense and goal of intellect, the notion of the truth of claims as correspondence to that world, and the notion of the denotation of objects by individual terms as the basis of that linguistic representation of reality. It is the task of this thesis to provide pragmatic credentials for these notions, to show how such notions are required for the sort of account the pragmatist has always desired of human practices, particularly, but not exclusively, linguistic ones. Thus I hope to show that the proper response to the pragmatist's legitimate insistence on the primacy of social practices is not the rejection of the notions of reality, truth, and denotation, but a deeper understanding of the role these notions play in our general account of human cognitive capacities. My task is thus not simply to bring pragmatism to the heathen realist, but to elaborate that pragmatism, to extend its horizons so as to encompass the current concerns and projects of the

realist tradition.

The thesis is organized to accomplish this end as follows. In Section I of Chapter I a broad historical and conceptual framework is set up in terms of a classification of things as mental, social, or objective according to the criteria of identity. The pragmatic outlook is identified and located within that framework. The rest of the chapter is devoted to an exposition and examination of the pragmatism of Wittgenstein's Philosophical Investigations, in particular to his criticisms from the point of view of social practices of the Cartesian analysis of meaning and understanding in terms of mental things and processes and of the Tractarian analysis in terms of objects and objective facts. Chapter II sets forth the relations between mental things and social practices, in a way complementing Wittgenstein's critical account. I present what I take to be the correct view of those relations, one derived from the work of Rorty and Sellars. In the rest of the chapter we consider how the classical notion of the real, defined in the Cartesian tradition by contrast to the mental, can be reconstructed in the light of the pragmatic account of the mental. Chapter III adjudicates the dispute between realism and instrumentalism (the view that all that is real is social practices), and a detailed interpretation of Dewey's pragmatism is developed to resolve the dispute without bloodshed. Chapter IV presents my novel pragmatic account of truth and its relations to social linguistic practices. Chapter V renders Quine's criticisms of the notions of meaning, grammar, and denotation in terms which make clear his pragmatic motivation, and extends the method of Chapter IV to respond to those criticisms.

Like other modern epistemological views, pragmatism can only be understood against the background of the legacy of Descartes. Descartes did not give us a further story about the nature of human knowledge of the sort offered by Plato, Aristotle, and their Medieval admirers. He offered a new kind of account. We can distinguish within his legacy between the novel structure he envisioned for an adequate account of knowledge and the particular notions he developed to play the roles dictated by that structure. The central innovation of his new kind of account is the notion of a medium of cognition.¹ This medium is to be a special realm of things, found only in intimate association with knowers, and knowledge is to consist of the possession of things of this special kind. The stories Plato and Aristotle told about knowing had involved appeal to novel sort of entities as well, of course. Plato had his eternal Ideas and Aristotle had his inherent forms. These were remarkably different from the sorts of things recognized by the common sense of their day (indeed, they would not be philosophical notions if this weren't so). But these notions were invoked to play the role, not of a medium of cognition, but of the objects of cognition. Plato insists that all we can strictly be said to know is the Ideas which the ephemeral things of common sense participate in, or imitate. Aristotle argues that what we can strictly be said to know is the forms which the otherwise

¹Heidegger, in his later works, takes the notion of representa-
tion which is the natural expression of a view about a medium of
cognition, to be the germ responsible for the plague which is modern
thought. See for instance "Metaphysics as a History of Being" in The
End of Philosophy, edited by J. Stambaugh (Harper and Row, New York,
1973). In this essay I want to talk about and develop a new version
of this disease, so I won't confront Heidegger's complaints directly.

unknowable material things of common sense exhibit. The ontological ingenuity of the pre-Cartesians is exercised on the side of the known rather than the knower.² And therein lies a crucial difference. The difference is expressed in the different sorts of explanation which one will be inclined to demand depending on which sort of account of knowledge is envisioned. The obvious demand is for an explanation of the commerce between the known and the knower by which the known affects the knower, bringing about knowledge in him. Plato satisfies this requirement with an account of dialectic-born reminiscence, while Aristotle provides a theory of sensory perception and subsequent abstraction. Descartes needs to be able to tell a story like this too, of course. He accordingly presents a theory of sense perception and rational method to show how the world of everyday things (as described in the best accounts of the day, then-common sense supplemented by such specialized investigations as Descartes' own optical, mechanical, and geometrical inquiries) influences the inner mental arena of thoughts and sensations which according to him comprise our knowledge of those everyday things. But Descartes cannot be content with such a straightforward scientific story by itself. Since for Descartes the knower has immediate interaction only with elements of the medium of cognition, he needs an account of how that interaction can be interpreted as constituting knowledge of things outside that medium. That is,

²This sketch is an over-simplification, though not, I think, a misleading one. Plato and Aristotle did have philosophical views about the knower as well as the known (Plato thought knowers were immortal, and Aristotle thought the human soul could take the form of any thing) and Descartes had philosophical views about the known as well as the knower (e.g., his doctrine of extension, leading to a notion of secondary qualities). But these views were not the leading ideas which produce the characteristic shape of each thinker's contributions.

Descartes needs an epistemological story, an account of the possibility of our talk about ordinary things in terms of our talk about the relations of elements of the medium of cognition. Since Descartes took that medium to consist of thoughts and sensations (the mental), he must explain how those thoughts and sensations to which alone we have direct, immediate access can represent a world to which we accordingly have a mediated access. This story proceeds in a different direction from the scientific accounts of the affection of the mind by what is external to it by sense perception. For this story begins from the subjective side, the mental arena of thoughts and sensations, and seeks to account for various aspects of our view of the objective world in terms of the relations of those subjective elements. Here the background beliefs and theories in terms of which causal stories are told about how the objective world impresses itself on the mind are as much in question as any specific knowledge claim. It is these beliefs about the objective world which must be justified. The epistemological story must, accordingly, construct some model of how the objective world affects the medium of cognition, but it may not simply presuppose that that model is given by science. The need for a story of this sort arises from the introduction of the notion of a medium of cognition. Plato and Aristotle, having no such notion, did not need to be able to tell an epistemological story in addition to the ordinary one. (The nearest analogue for their theories of new objects of cognition is the account they owe of the relation of these objects to ordinary things, a requirement Plato satisfies with his theory of participation and Aristotle with his hylomorphism.) An account of knowledge constructed around a special realm of existence taken as the exclusive medium of

cognition must justify our views about the existence and nature of an objective world—one different in kind from the elements of the medium of cognition—in terms of our commerce with those elements.

The framework Descartes set up for an account of human knowledge in terms of a special medium of cognition may be employed without the particular characterization of that medium that Descartes recommended. It is thus possible to be a Cartesian in the broad structure of one's account of knowledge while rejecting Descartes' subjectivism. It is in this way that we ought to think of the shift in this century from taking the mind as the medium of cognition to taking language to be that medium. The basic structure of the Cartesian account is retained, in particular the demand for some sort of an explanation of how a world external to the language which is taken to be the medium of cognition can be represented within it, so that the possession and manipulation of elements of that medium can constitute knowledge of the objective world. This demand motivates even such an apparently unepistemological consideration of language as Wittgenstein's Tractatus. Where Descartes had seen human activity as involving an intelligent grasp of the nature of the objective world in virtue of an underlying subjective realm whose elements represented objective features, Wittgenstein in the Tractatus explains the possibility of that grasp of objective facts (being able to make claims, assert propositions) in terms of an underlying ideal language whose elements, linguistic objects and facts represent the objective world. In each case the point is to explain the possibility of talk about the objective world by talking about the relations of the elements of the medium of cognitive functioning, whether this last is taken to be the mind

or the language.³

Pragmatism may best be understood (in contrast to naive realism) as a view which shares with the view Wittgenstein presents in the Tractatus and with Descartes' own detailed view the identification of a special sort of thing as the exclusive medium of cognition, and the corresponding demand for an account of the possibility of representing the objective world within that medium (so that the knower's commerce with the elements of that medium can constitute his knowledge of that world). Pragmatism is the view that the medium of cognition consists of social practices, as Descartes had taken it to consist of mental particulars and Wittgenstein had taken it to consist of linguistic objects and facts.⁴ But what is a

³The objectivist revolt against the Cartesian identification of the mental as the medium of cognition which Wittgenstein inherited from Frege and which found brilliant expression in the Tractatus passed only ambiguously into subsequent logical positivism. The positivists who were inspired by the Tractatus never recaptured Wittgenstein's freedom from the concern with the subjective element of cognition. Carnap began his career as a phenomenalist, and his concern with observations conceived as the basis for knowledge on the model of the British Empiricist heirs of Descartes always vied with the objectivism he derived from the Tractatus. Russell's logical atomism similarly represents the infection of the objectivism of Frege by a Cartesian concern with incorrigible acquaintance with mental particulars as the necessary basis for knowledge of the objective world, however much language might be needed as an intermediary.

⁴I will not try to establish this as a historical thesis about those thinkers who have been called "pragmatists". I do not think that it is possible to trace a single theme throughout the American pragmatists, identifiable as the "pragmatism" responsible for all of their views. I do think that it is possible to identify a view which those thinkers held in one form or another, and which is the source of their best work. To do this one must be prepared to discard much of what was most dear to the pragmatists themselves, however, so it is not an interpretive historical endeavor. Be that as it may, we will discuss the American pragmatist from whom we have, as I believe, the most to learn, with an effort to discern his best wisdom amidst a forest of more or less bad ideas. Thus we will present a detailed interpretation of Dewey in Chapter III. Perhaps the best way to see

a social practice? I think that most of the misunderstanding and undervaluation of the pragmatists (Wittgenstein included) stems from their failure to give a clear and unambiguous answer to this question. Social practices have a number of peculiar properties compared to ordinary objective things, or even compared to mental things, as we shall see. This peculiarity easily leads one to suspect that problems discussed in terms of such a notion have not been solved so much as re-christened by the invocation of a new sort of entity stipulated to have just the properties necessary to avoid the problems of accounting for our ability to get around the world intelligently in terms of mental or objective things. This is all the more unfortunate because I believe that a straightforward account of the nature of social practices is possible, an account which both enables us to understand what the pragmatists have been trying to say and permits sufficient clarity in the formulation of the appropriate projects of pragmatism for us to achieve significant progress toward the accomplishment of those projects.

how Peirce might fit into the sort of story I tell here is to compare the discussion of Wittgenstein in this chapter with the account Rorty gives of the similarities between Peirce and Wittgenstein in "Pragmatism, Categories, and Language", Philosophical Review LXX (1961) pp. 197-223. Much of Peirce's thought turns out to be unconnected to what I would call pragmatism, however. James is fairly explicit about the role of social practices in determining the meaning of expressions, but picking up on a bad idea of Peirce's, ends by identifying those practices with future occasions of use of an expression. This extraneous notion is driven to the greatest possible antipragmatist extent (according to my privileged use of the term "pragmatism") in C. I. Lewis, who ought not be considered a pragmatist at all. For Lewis proceeded to identify the future occasions of use of an expression with the subjective experiences of an individual, resulting in a thoroughly Cartesian view, which Peirce had assiduously avoided, and even James had kept at arm's length in spite of his many confusions. G. H. Mead, the other official pragmatist, is perhaps the most explicit about social practices and their role in cognition, although his notion of the social is a little mysterious.

Social practices are best understood in terms of a criterial classification of things. We will classify a kind of thing K according to what sort of criterion determines whether a particular thing is a K or not. (How we know whether something is a K or not doesn't enter in here. We care only about what it is in virtue of which a particular individual is or isn't actually a K.) There are three basic criterial categories. First of all, there are things whose criteria involve only the attitudes and behavior of an individual person. Sensations are things of this kind. A particular sensation is a pain just in case the appropriate individual sincerely takes it to be a pain. Following Rorty,⁵ I call things for which we accord this sort of criterial authority to individuals mental. Second, there are things whose criteria are the attitudes and behavior of groups or communities of people. A particular motion is a greeting-gesture for a tribe just in case they take it to be one (accept it as such in their ordinary interactions). Just as we don't know what to make of the claim that it seemed to someone that he had experienced a sudden sharp pain, but actually hadn't, so we don't know what to make of the claim that a tribe thought a particular movement was an instance of their habitual greeting-gesture, but that it wasn't, their acceptance of it as such was mistaken. (Of course in either instance the individual or the group to whom we accord criterial authority can take back the initial judgement, but this is not the case we are considering.) Whatever the tribe treats as a greeting-gesture is one. For things of this kind, what they say goes. I will call things of this kind social practices.

⁵"Incorrigibility As the Mark of the Mental", Journal of Philosophy LXVII 12 (June 25, 1970), pp. 399-424.

Finally, there are things whose criteria of identity are independent of the attitudes or behavior of any individual or group. These are things which are what they are regardless of how anybody or any group treats them. The M-16 galaxy is a thing of this sort. I call this kind of thing objective. The criterial division is simply into things which are whatever some one person takes them to be, things which are whatever some community takes them to be, and things which are what they are no matter what individuals or groups take them to be.

Pragmatists are philosophers who take social practices, things of the second kind, to be the medium of cognitive functioning. That is, they take understanding to consist of having certain social practices, just as the Cartesians took understanding to consist of having certain mental contents (things of the first kind), and Wittgenstein in the Tractatus takes understanding to consist of having a theory, a set of objective linguistic facts (things of the third kind).⁶ Put another way, meanings, the things we grasp when we understand something, are taken to consist of social practices by the pragmatist, of mental particulars by the subjectivist, and objective facts by the Tractarian

⁶I do not mean by this statement to be taking issue with the widely held view (e.g., as expressed by Anscombe) that the Tractatus is not an epistemological work, and that Russell misinterprets it when he takes it to be one in his Introduction. The Tractatus is not an account of the circumstances in virtue of which knowledge is possible. It does seem to be an account of the possibility of some necessary condition of knowledge, say, the possibility of representing an objective state of affairs, making a factual claim, or asserting a proposition. Wittgenstein says virtually nothing about the connection between the ideal language in terms of which he discusses such possibilities and actual human activities which the ideal language presumably somehow makes possible. Still, if there weren't some sort of connection envisioned between his account of the nature of representation in an ideal language and human understanding in natural languages, it is difficult to see how the Tractatus could be seen as solving all of the traditional problems of philosophy.

objectivist. Our discussion so far offers us a sufficiently precise characterization of these conflicting views about the cognitive functions of meaning and understanding for us to begin the detailed consideration of the arguments which may be marshalled by the pragmatist against his rivals. In the rest of this chapter we will examine perhaps the clearest sustained argument for the pragmatic rendering of meaning and understanding in terms of social practices, Wittgenstein's Philosophical Investigations. But Wittgenstein's arguments, even if, as I believe, they are fatal to the subjectivist and objectivist positions he confronts, can be no more than the introduction to the project of pragmatism. For whatever the advantages of taking social practices to be the medium of cognitive functioning, the pragmatist must pay for those advantages with an explanation of how knowledge of an objective world can consist of such practices. The pragmatist must be able to explain how, by engaging in various social practices (which are things of the second kind, over which the community has complete dominion) we can come to express, make claims, and have views about objective matters of fact (which are things of the third kind, independent of the attitudes of any community). Just as subjectivists and objectivists need to be able to explain how mental things and objective things respectively can represent the objective world, so the pragmatist must explain how that world is represented in social practices. Pragmatism as a view of human cognitive functioning stands or falls with the project of giving some such account. No pragmatist, including Wittgenstein, has explained what it is about our linguistic social practices in virtue

of which they are appropriately taken to involve claims about objective things. Putnam expresses this common complaint against Wittgenstein:⁷

Wittgenstein too saw that meaning is a function of human practice. Indeed, he saw this far more completely than any philosopher before him. But...Wittgenstein, when he came to see the extent to which meaning is a function of human practice somehow also came to the conclusion—the erroneous conclusion in my opinion—that talk about human practice obviated talk of correspondence or reference [to an objective world] altogether. Reichenbach's perspective is the more correct one. There is a correspondence between words and things or words and magnitudes, and it is a function of human practice. A central task of philosophy is to spell out the nature of this function.

It is the task of this thesis to provide such an account of the relations of social practices to objective things in virtue of which those practices are the medium by which we know about those objective things. That task requires us to understand in detail the arguments from the side of social practices which Wittgenstein presents against the subjectivist and objectivist accounts of meaning and understanding in terms of the representation of the objective world by ideas and linguistic objects or facts respectively.

II

The basic thesis of the Philosophical Investigations⁸ is that the meaning of an expression, what one understands when he is able to use the expression correctly, is a matter of social practices. According to the definitions we have just introduced, this is to say that what an

⁷"The Refutation of Conventionalism", in Mind, Language, and Reality: Philosophical Papers, Vol. II, p. 172.

⁸All quotations in this chapter are from G.E.W. Anscombe's translation of Wittgenstein's Philosophische Untersuchungen Third Edition (Macmillan Co. New York, 1958), hereafter, PI.

expression means is determined by how tokens of the expression are treated by some community (and that correlatively, understanding is determined by how ones states are treated by that community). There are three basic lines of argument running through the Investigations, corresponding to three ways which one might think of to eliminate the reference to social practices in talking about meaning and understanding in favor of things of the other two kinds, objective and mental. The meanings of expressions (and the understanding of those meanings) must at least determine the correct use of those expressions. In the argument we consider first, Wittgenstein examines the Tractarian notion that meanings are objective things, which objectively determine the correct applications of expressions. The second argument we will consider examines the Cartesian notion that meanings are mental things (such as images), which objectively determine the correct usage of expressions (i.e., whose application is an objective process). Third, we will consider the so-called "private language argument", which I take to be an examination of the view that meanings, whether mental or objective things, determine correct occasions of use of expressions by a mental process. The argument in each case will try and establish the same claim, namely that whatever sort of thing one imagines as intervening between an expression and its use or application in concrete circumstances, that use or application must be taken to be a social practice.⁹

⁹I should say something about the organization I am attributing to the PI. I do not think that it is laid out so as to make the main lines of argument as perspicuous as possible, largely because Wittgenstein mingles the consideration of meaning and understanding as a matter of an underlying objective calculus of rules and consideration of those activities as mental processes, and as will become clear, I think that the argument against the mental process view presupposes

According to the Tractatus, linguistic expressions other than names are meaningful insofar as they are analyzable into arrays of names, linguistic objects which stand in objective naming relations to simple objects. In the Investigations, Wittgenstein has many interesting things to say about the notions of naming and simplicity in terms of which he had worked out his earlier objectivist view about meaning. The main thrust of his argument, however, is against any view in which the social practices that are the use of expressions are eliminated in favor of interactions of things of the other two kinds. It is with his attack on objectivism in general, then, and not with his criticisms of the details of his own earlier version, that we will be concerned (just as we will consider mentalism in general in the next argument, and not the version put forward by any particular Cartesian). The basic view against which the first line of argument is directed is indicated in this accusation:

his results concerning objective rules. At any rate, PI sections 1-53 consists of an introductory consideration of naming and simplicity, as an attack on some of the details of the particular objectivist view Wittgenstein had presented in the Tractatus. PI 54-107 consists of a polemic on the notion of vagueness, which is his introduction to the argument against any sort of objectivism, whether involving the specific claims about naming invoked in the Tractatus or not. PI 108-133 is an interpolation on the method Wittgenstein sees himself as employing throughout. PI 133-178 turns to the consideration of mental processes and states and their relation to social practices. PI 179-242 continues the polemic against objectivism commenced at 54-107, trying to show that the application of an expression cannot be objectively determined by rules. PI 242-314 uses the criterial distinction between the mental and the social to show that a language in which usage was determined by a merely mental process would lack some important features of actual linguistic practices. The rest of PI I take to be a rich storehouse of examples and concrete considerations which would perhaps better have been distributed among appropriate segments of the arguments laid out here. No new lines of argument are introduced, though old ones are elaborated and re-chewed.

...you think of the meaning as a thing of the same kind as the word, though also different from the word. Here the word, there the meaning. The money, and the cow that you can buy with it. (But contrast: money, and its use.) (PI 120)

What kind of a thing Xs are (meanings, uses, understandings in this sense) is a matter of the criteria which determine whether something is an X or not. Wittgenstein examines just this aspect of various candidate notions of meaning:

...what does it mean to say that in the technique of using the language [Praxis der Sprache] certain elements correspond to the signs—Is it that the person who is describing the complexes of colored squares always says 'R' where there is a red square, 'B' where there is a black one, and so on? But what if he goes wrong in the description and mistakenly says 'R' where he sees a black square—what is the criterion by which this is a mistake? (PI 51)

Wittgenstein will develop an answer to the question of what determines whether something counts as meaning or understanding something (or learning, remembering, reading, thinking it) by creating a series of analogies ("family resemblances") to other familiar activities which share the criterial properties of social practices:

To obey a rule, to make a report, to give an order, to play a game of chess, are customs (uses, institutions). (PI 199)

And hence also 'obeying a rule' is a practice. (PI 202)

Wittgenstein will argue that meaning and understanding linguistic expressions involves social practices. He will seek to show that discourse about such practices cannot be replaced by discourse about things of the third kind (objective rules) or things of the second kind (mental states or processes), by exhibiting features of the practices which devolve from the criteria of identity appropriate to things of that category, and which accordingly cannot be matched in terms of things in the other categories.

The objectivist takes meanings to be, not uses or social practices, but objective things like words. But meanings must determine uses (for the language consists concretely of actual applications of expressions in situations).

...when one has attained greater clarity about the concepts of understanding, meaning, and thinking... it will then also become clear what can lead us (and did lead me) to think that if anyone utters a sentence and means or understands it he is operating a calculus according to definite rules. (PI 81)

The rules are to determine the appropriate occasions of use of expressions. The significance of calling the rules 'definite' in this passage is that social practices admit of a sort of indefiniteness or vagueness which objective things do not. Thus Wittgenstein begins his attack on the view that meanings are objective things and determine the application of expressions objectively ("according to definite rules") by asking whether the use of a sentence or a word must be everywhere determined by rules in order for the expression to have a meaning, or for someone to understand it. Wittgenstein concludes that such rules are not required for meaningfulness by considering the range of application of various expressions, 'game' (PI 66), 'number' (PI 67), 'Stand roughly here' (PI 71 & 88), 'Moses' (PI 79) and 'chair' (PI 80). One example will suffice:

I say "There is a chair". What if I go up to it, meaning to fetch it, and it suddenly disappears from sight?—"So it wasn't a chair but some kind of illusion."—But in a few moments we see it again and are able to touch it and so on.—"So the chair was there after all and its disappearance was some kind of illusion."—But suppose that after a time it disappears again—or seems to disappear. What are we to say now? Have you rules ready for such cases—rules saying whether one may use the word 'chair' to include this kind of thing? But we do not miss them when we use the word 'chair'; and are we to say that

we do not really attach any meaning to this word because we are not equipped with rules for every possibly application of it? (PI 80)

This sort of vagueness is characteristic of social practices. For some performance to count as an instance of a social practice is for it to be accepted as such by the relevant community. And this means that there can be a social practice without its being the case that for every imaginable performance the community has decided in advance whether it would be acceptable or not. There is a social practice as long as there is sufficient agreement about the cases which actually come up. The criteria of correct application for unfamiliar situations are vague. If such circumstances as Wittgenstein imagines in the passage above became common, some consensus about how to treat them would probably develop in the linguistic community. But how the practice of using an expression would evolve under such stimuli is not determined in advance, and that it is not so determined does not affect the consensus concerning familiar situations. The vague "boundaries" of social practices, e.g., what is a correct application of a given expression, result from the fact that the responses of actual communities determine whether a given performance is an instance of the practice. What one can get the community to accept—what one can get away with—determines the boundaries. In just this respect social practices differ from things of the third kind, which are independent of the attitudes of particular communities. Linguistic expressions like rules are such objective things ("you think of the meaning as a thing of the same kind as the word..."). The expressions are what Sellars calls "natural linguistic objects" and Carnap calls "sign designs". They are objects composed of words or other symbols,

and they have definite "boundaries". There is no vagueness about whether, for instance, a given word appears in the rule or not. Insofar as this sort of thing is left vague, one has not specified a rule or expression at all. The question is whether for the expression to have a meaning (or be understood) its application has to be similarly objective and definite, whether the syntactic objectivity must be matched by semantic objectivity. Wittgenstein attacks this sort of objectivism by pointing to the vagueness we tolerate in the application of expressions, arguing that the use of an objective rule or expression is a social practice, that is, that the criterion of successful application is its actual functioning in the community.¹⁰

A rule stands there like a sign-post. (PI 85)

The sign-post is in order—if under normal circumstances it fulfills its purpose. (PI 87)

And hence also 'obeying a rule' is a practice (PI 202)

By examining the criteria of meaning and understanding appropriate to expressions, Wittgenstein has argued (roughly from PI 54 to 106) that the objectivist requirement of determination of application by an underlying set of objective rules is not necessary for cognitive functioning (as he had thought it was in the Tractatus).

The more narrowly we examine actual language, the sharper becomes the conflict between it and our requirement. (For the crystalline purity of logic was, of course, not a result of investigation; it was a requirement). The conflict becomes intolerable; the requirement is now in danger of becoming empty. (PI 107)

¹⁰For a discussion of this notion of vagueness (without any mention of social practices) and its importance to Wittgenstein's view and to the official pragmatist tradition as represented by Peirce, see Rorty's "Pragmatism, Categories, and Language", cited in note 4.

In the next phase of the argument, we see the requirement of objective determination of every possible correct use of an expression finally become empty. For Wittgenstein continues by arguing that not only do we in fact put up with the sort of vagueness of meaning and understanding characteristic of social practices in virtue of their dependence on actual communities, but that this sort of vagueness is unavoidable. That is, the appeal to the social practices of actual communities cannot in principle be eliminated from our account of the use of expressions by any invocation of objects, objective rules, or objective processes.

We want to consider what it would be like to have an expression that works the way the objectivist envisions it, whose meaning objectively determines its correct application under any possible circumstances.

I said that the application of a word is not everywhere bounded by rules. But what does a game look like that is everywhere bounded by rules? Whose rules never let a doubt creep in, but stop up all the cracks where it might?—Can't we imagine a rule determining the application of a rule, and a doubt which it removes—and so on? (PI 84)

We are to imagine that when some doubt is possible about the application of an expression, some vagueness about what is correct, we resolve the vagueness by means of an explanation, a clarification. The previous argument is to have convinced us that vagueness is not totally destructive to meaningfulness and understanding. We can clearly in some sense "get by" without such explanations.

It may easily look as if every doubt merely revealed an existing gap in the foundations; so that secure understanding is only possible if we first doubt everything that can be doubted, and then remove these doubts. (PI 87)

As though an explanation as it were hung in the air unless supported by another one. Whereas an explanation may indeed rest on another one that has been given, but

none stands in need of another—unless we require it to prevent a misunderstanding. (PI 87)

The question now is whether it is possible to remove all imaginable doubts about the application of an expression in this way, so that the elimination of vagueness is an acceptable ideal, even if our ordinary rough and tumble discourse does not realize the ideal. The case Wittgenstein considers is that of continuing a numerical sequence. There is an analogy between an activity like this and applying some linguistic expression. Each new place in the sequence requires a decision about how to continue the sequence, just as each new situation requires a decision about how to apply the expression. But in the case of the numerical sequence, if anywhere, we would expect to be able to resolve any vagueness which crops up about how to extend the sequence to new places. It is clear that any finite set of elements of a sequence which one might give can leave the continuation to new cases (say n greater than 1000) problematic, open to doubt, in need of explanation.

Now we get the pupil to continue a series (say $+2$) beyond 1000—and he writes 1000, 1004, 1008, 1012. We say to him: "Look what you've done!"—He doesn't understand. We say "You were meant to add two: look how you began the series!" He answers: "Yes, isn't it right? I thought that was how I was meant to do it."—Or suppose he pointed to the series and said "But I went on in the same way." (PI 185)

As long as we view the continuation of the sequence as an objective process, there is nothing to choose between this continuation and the usual one. All we can say is that we don't consider this "going on in the same way". But there is an algebraic formula for this continuation as well as for the usual one, it is just not the formula we would think of.

In such a case we might say, perhaps: It comes natural to this person to understand our order with our explanations as we should understand the order: "Add 2 up to 1000, 4 up to 2000, 6 up to 3000 and so on." Such a case would present similarities with one in which a person naturally reacted to the gesture of pointing with the hand by looking in the direction of the line from finger-tip to wrist, not from wrist to finger-tip. (PI 185)

In either case, the choice between the different continuations of the numerical sequence or between the different applications of the gesture is not an objective one. It involves essential reference to how such sequences or gestures are treated by some community, the community within which there is a practice involving such performances.

But now it seems possible for us to give an explanation which will clarify the vagueness, eliminate the doubt, which allows the possibility of "going on in the same way" deviantly. For we said that each continuation of the sequence could be codified in an algebraic formula, and that the only reason to choose between them is their relation to some community, not anything intrinsic to the sequences they determine. But why can't we clarify the original order "Go on in the same way!" by specifying the algebraic formula which is to determine the sequence (say, n^2+2)? Surely here we have a paradigm case of what the objectivist envisions as an objective calculus underlying the practice of continuing the sequence, a calculus whose rules definitely and objectively determine the application of the formula to every possible value of n . Giving such a formula can be a genuine explanation of the sequence, for I might be in doubt as to how to continue the sequence 3, 6, 11, ... until the formula is supplied. Does the formula eliminate all the vagueness of the original practice, however? Does it really leave no room for doubt? Surely the formula

itself can be applied in deviant ways, just as the initial segment of the sequence could be extended in deviant ways, or the pointing gesture interpreted in deviant ways.

"But are the steps then not determined by the algebraic formula?"—The question contains a mistake. We use the expression "The steps are determined by the formula..." How is it used?—We may perhaps refer to the fact that people are brought by their education (training) so to use the formula $y=x^2$ that they all work out the same value for y when they substitute the same number for x . Or we might say "these people are so trained that they all take the same step at the same point when they receive the order 'add 3'". We might express this by saying: for these people the order "add 3" completely determines every step from one number to the next. (PI 189)

Applying the rule is a social practice, the correct application is determined by what some actual community takes to be the correct application of that rule. The existence of such a social practice presupposes the empirical concordance of that community as a result of their training. For what the formula really does is to dissect the practice of continuing a given numerical sequence into sub-practices, for instance of squaring and adding two. Ultimately these could also be resolved in terms of counting. But these are social practices just as continuing the original sequence is. The formula transforms one's capacity to engage in the social practice of, let us say, counting, into the capacity to engage in the social practice of continuing a more complicated sequence. The attempt to eliminate social practices in favor of objective rules generates a regress, for no rule determines its correct application to concrete circumstances by an objective process. Abstracting from the actual practices of linguistic communities, any rule is compatible with

any sort of application.¹¹

"But how can a rule show me what I have to do at this point? Whatever I do is, on some interpretation, in accord with the rule."—That is not what we ought to say, but rather: any interpretation still hangs in the air along with what it interprets, and cannot give it any support. Interpretations by themselves do not determine meaning. (PI 198)

Only interpretations in the context of some community which has practices of applying that interpretation determine meaning. The problem Wittgenstein is pointing to here is a quite general one concerning the relation of things of the third kind of social practices. An object, such as a rule, can determine a practice only if there are other practices, e.g., of responding to the object, in the community. Objectively, without reference to the community and its practices, it will always be possible to apply the rule differently. Wittgenstein explicitly draws the lesson that social practices, as things of a different kind from objective things, are ineliminable in accounts of this sort.

¹¹ Unless one realizes that Wittgenstein is concerned with arguing that social practices cannot be eliminated in a wholesale fashion in favor of objective rules or processes—things which are what they are regardless of the behavior or attitudes of any group of people—these passages will seem pointless. For Wittgenstein constantly shows that we can imagine people misinterpreting every order, rule, or explanation that we might offer. And one wants to say "Of course linguistic objects can be misinterpreted and misapplied, that is to say that there is no logical or objective necessity for people to understand a given language". And indeed there is not. But who would have denied that the connection of signs with their actual application is in some sense conventional? Well, Wittgenstein in the *Tractatus*, for one. But put as a point about the ineliminability of social practices in accounts of the meaning and understanding of linguistic expressions, this argument has, as we will see, striking consequences when carried over to the more familiar and widespread Cartesian view.

What this shows is that there is a way of grasping a rule which is not an interpretation [Deutung], but which is exhibited in what we call 'obeying the rule' and 'going against it' in actual cases. Hence there is an inclination to say: every action according to the rule is an interpretation. But we ought to restrict the term 'interpretation' to the substitution of one expression of the rule for another. (PI 201)

And hence also "obeying a rule" is a practice. (PI 202)

The social practices which are being contrasted with objective things in these passages are not strange or spooky things, and they are certainly not subjective. What any individual does in engaging such a practice, following a rule, applying an expression, or continuing a sequence, is to do what he has been trained to do. And that may be habitual, causally determined by his training, and hence describable as an objective process, which is what it is regardless of the attitudes of any community. But what makes a particular performance according to such a causally determined habit an instance of a social practice of applying an expression or following a rule or extending a sequence correctly is a matter of the congruence of that performance with the standards of the community. The community determines which of the objective processes one might take part in as a result of training are to count as successful exhibitions of a practice. And this judgement is not objective matter, for it is not an issue on which the community can make a mistake. What they say goes.

Let me ask this: what has the expression of a rule—say a sign-post—got to do with my actions? What sort of connection is there here?—Well, perhaps this one: I have been trained to react to this sign in a particular way, and now I do so react to it.

But that is only to give a causal connection: to tell how it has come about that we now go by the sign-post; not what this going-by-the-sign really consists in. On the contrary; I have further indicated that a person goes by a sign-post only in so far as there exists a regular use of sign-posts, a custom. (PI 198)

III

We have seen Wittgenstein argue that for an expression to mean something or other is for there to be a practice in some community of applying it or using it in some way. To understand what the expression means is to have mastered this practice. Mastering the practice is not a matter of following any set of rules, but rather of behaving in a way acceptable to the rest of the community. Rules may play a role in this, but need not. This line of thought can be brought to bear against the notion that cognitive functioning consists of the manipulation of things of the first kind, mental events or processes, just as it was against the notion that cognitive functioning consists of the manipulation of things of the third kind, objective linguistic rules.

But we understand the meaning of a word when we hear or say it; we grasp it in a flash, and what we grasp in this way is surely something different from the 'use' which is extended in time! (PI 138)

This is the basic challenge which confronts the social practice view from the side of mental things.

What really comes before our mind when we understand a word?—Isn't it something like a picture? Can't it be a picture?

Well, suppose that a picture does come before your mind when you hear the word 'cube', say the drawing of a cube. In what sense can this picture fit or fail to fit a use of the word 'cube'? Perhaps you say "it's quite simple;—if that picture occurs to me and I point to a triangular prism for instance, and say it's a cube, then this use of the word doesn't fit the picture."—But doesn't it fit? I have purposely so chosen the example that it is quite easy to imagine a method of projection according to which the picture does fit after all.

The picture of the cube did indeed suggest a certain use to us, but it was possible for me to use it differently. (PI 139)

Wittgenstein is arguing that the application of the word is the criterion of understanding it. This is the first step in showing that it is only insofar as it is embedded in a social practice that a mental event or process is important to understanding.

Now clearly we accept two different kinds of criteria for this: on the one hand the picture (of whatever kind) that at some time or other comes before his mind; on the other, the application which—in the course of time—he makes of what he imagines. (And can't it be clearly seen here that it is absolutely inessential for the picture to exist in his imagination rather than as a drawing or model in front of him?)... (PI 141)

This last point is to be the basis for Wittgenstein's argument against understanding as a mental state. The criterion of understanding is ultimately the applications one can make of an expression. Mental things do not have an essentially different relation to such applications than linguistic rules did.

What is essential is to see that the same thing can come before our minds when we hear the word and the application still be different. Has it the same meaning both times? I think we shall say not. (PI 140)

This is the crucial case for showing that understanding the meaning of an expression does not consist in some sort of mental grasp.

Suppose I now ask: "Has he understood the system when he continues the series to the hundredth place?"... Perhaps you will say here: to have got the system (or, again, to understand it) can't consist in continuing the series up to this or that number: that is only applying one's understanding. The understanding itself is a state which is the source of the correct use.

What is one really thinking of here? Isn't one thinking of the derivation of a series from its algebraic formula? Or at least something analogous?—But this is where we were before. The point is, we can think of more than one application of an algebraic formula: and every type of application can in turn be formulated algebraically; but naturally this does not get us any farther.—The application is still a criterion of understanding. (PI 146)

The discussion of objective rules goes over to mental events and processes quite unchanged. Just as writing an algebraic formula doesn't determine the continuation of a sequence except empirically, for some actual community for whom we have discovered inductively a connection between writing the formula and continuing the sequence correctly, so having a mental image or other state cannot determine the application of an expression (it is possible to have that state and apply the expression differently) except empirically, for some actual community for whom we have discovered an inductive connection between being in that mental state and applying the expression correctly.

Thus what I wanted to say was: when he suddenly knew how to go on, when he understood the principle, then, possibly he had a special experience—and if he is asked: "What was it? What took place when you suddenly grasped the principle?" perhaps he will describe it much as we described it above—but for us it is the circumstances under which he had such an experience that justify him in saying in such a case that he understands, that he knows how to go on. (PI 155)

This is because one can have determined empirically that having this experience under these conditions (e.g., being trained in the use of formulae, being awake and attentive, and so on) is sufficient reason for believing that one can continue the sequence.

"The certainty that I shall be able to go on after I have had this experience—seen the formula, for instance—is simply based on induction." What does this mean?—"The certainty that the fire will burn me is based on induction." Does this mean that I argue to myself: "Fire has always burned me, so it will happen now too?" Or is the previous experience the cause of my certainty, not its ground? Whether the earlier experience is the cause of the certainty depends on the system of hypotheses, of natural laws, in which we are considering the phenomenon of certainty.

Is our confidence justified?—What people accept as justification—is shown by how they think and live. (PI 325)

As before, we imagine that an individual has been trained to respond in certain ways to various orders or rules. In the past, when his responses have been such as to win the approbation of the community, have been accepted as correct or successful performances of the practice of following the order or applying the rule correctly, the individual has had a characteristic sensation, which he identifies as the realization that he can obey the order or follow the rule. Wittgenstein simply points out that there is no necessary connection between being in that mental state and performing in such a way as to have the community accept one's actions as instances of a social practice. The connection between being in a certain mental state and understanding an expression is empirical. The criterion for being in the mental state is, roughly, that one sincerely think that one is, while the criterion for understanding an expression is that one be able to apply it in ways which the community accepts as correct.

It is clear that we should not say B had the right to say "Now I know how to go on", just because he thought of the formula—unless experience showed that there was a connection between thinking of the formula—saying it, writing it down—and actually continuing the series. And obviously such a connection does exist. (PI 179)

The understanding one has of the meaning of an expression is so far from identical to a mental state that the state only becomes sufficient evidence for the understanding in virtue of a social practice of taking it to be so (a social practice which depends for its viability on the empirical fact that in the community sincere first person reports of the state generally correlate with the capacity to use the expression in a way acceptable to the community). The mental functions here only as the invisible inward sign of a visible outward (i.e., social) grace.

In the sense in which there are processes (including mental processes) which are characteristic of understanding, understanding is not a mental process. (PI 154)

Thus it is clear that the meaning of an expression may not be taken to be a kind of mental state which is elicited by the expression in the members of some population when they understand the expression, and which then objectively determines the use they make of that expression. There must be a social practice of applying the expression. Mental states may be, and indeed, presumably are, empirical concomitants of the successful training process whereby members of the community come to be able to engage in the social practice which is the correct use of the expression. Wittgenstein is not claiming that mental states have no role to play in this process. He is claiming that they cannot replace the social practices of applying linguistic expressions. For even if the same mental state is evoked in all of the people who understand a particular expression, still the criteria of successful application of the expression ensure that "following the mental rule" must be a social practice, rather than an objective process, just as was the case for following an objective rule. Whatever objective or mental processes are involved in one's performance in accord with a social practice such as correctly using an expression, what makes the performance correct is its consonance with the practices of the rest of the community, and this cannot be a matter of mental or objective processes. Mental and objective processes come into our accounts of meaning and understanding as parts of the training of individuals, but the existence of a custom or practice according to which particular performances are judged correct or incorrect involves the responses of the entire community (cf. PI 198 quoted on p. 24).

One might be prepared to countenance this argument, and still deny that social practices had been shown to be essential to the meaning and understanding of linguistic expressions. For one might think that the judgements of the linguistic community who share the language to which the expression belongs, which have loomed so large in our argument, are not in fact necessary for meaningfulness and intelligibility, though no doubt they are necessary for communication. And here one would be thinking of a language of thought, over which no external community had authority to judge correctness or incorrectness of utterances. Such a language is envisioned as the medium of Carnap's Aufbau and other phenomenalistic constructions of the objective and the social out of the mental. The author and sole adept of the language is the one whose judgements determine correct or incorrect usage. He lays down mental rules, and follows them by a mental process. The expressions of his language may even be objective things, like ordinary linguistic signs, rather than mental things. But the processes of applying them and judging the correctness of those applications are mental processes, over which no sovereignty is ceded to any other person or group of people.

The arguments we have canvassed thus far for a pragmatic view of the function of language (meaning and understanding) do not address such an unabashedly mental language. They have presupposed a community of language-users. It would, of course, be idle to argue that nothing that worked as this mental language is envisioned as working could be called a language, for such an argument could only proceed subject to some controversial technical narrowing of the use of the term "language", and such verbal disputes are notoriously unconvincing. Nor does Wittgenstein try to do this. The whole project of finding a

definition or rule for deciding when something is a language and when not, and then using this to rule on puzzle cases is anathema to him, for the reasons we have already considered. The boundaries of correct usage of expressions are vague and shifting, many to be clarified only under pressure, by relatively arbitrary fiat of the community using the expression. The private language case is as much a puzzle-case for the boundaries of this term as the disappearing chair is for the boundaries of that term. What Wittgenstein does do, and what he ought to do by his own principles and practice as well, is to look at the details of what is imagined in the case of the mental language, and see what the price in concrete functioning actually would be of giving up the background of the concordant practices of a linguistic community in favor of the decisions of a single constitutor. The famous private language argument seeks to show that by the very act of making the language mine own, I must make it a poor thing.

For simplicity, we will consider the case in which the actual expressions of the language are objective things, sign-designs such as are used in ordinary, social languages. The individual whose language it is uses the expressions according to mental regularities or rules. According to our definition by criteria of identification, this is to say that the one whose language it is has sole authority as to what the regularities are, and whether they have been followed in particular instances. He cannot be over-ruled. The argument Wittgenstein makes is that:

... 'obeying a rule' is a practice. And to think one is obeying a rule is not to obey a rule. Hence it is not possible to obey a rule 'privately': otherwise thinking one was obeying a rule would be the same thing as obeying it. (PI 202)

A mental rule would precisely be one for which there is no difference between obeying the rule and thinking that one is obeying it. For one's authority over the character of his mental states and processes is complete. One is incorrigible about such matters, that is what it is for them to be mental according to our stipulated usage.¹² What is wrong with such mental rules? What is wrong is that they cannot, in principle, be transgressed. Accordingly, they do not establish any boundaries between correct and incorrect usage, not even the vague boundaries induced by social practices.

I could not apply any rules to a private transition from what is seen to words. Here the rules really would hang in the air; for the institution of their use is lacking. (PI 380)

One has, we imagine, made the rule to oneself: "Whenever I have a sensation like this, I will report an S."

I will remark first of all that a definition of the sign cannot be formulated.—But still I can give myself a kind of ostensive definition.—How? Can I point to the sensation? Not in the ordinary sense. But I speak or write the sign down, and at the same time I concentrate my attention on the sensation—and so as it were point to it inwardly.—But what is this ceremony for? for that is all it seems to be! A definition surely serves to establish the meaning of a sign.—Well, that is done precisely by the concentrating of my attention; for in this way I impress on myself the connection between the sign and my sensation.—But "I impress it on myself" can only mean: this process brings it about that I remember the connection right in the future! But in the present case I have no criterion

¹²I am here taking some liberties with Wittgenstein's views in the attempt to present what seems to me to be his best wisdom—what we should learn from him. For I am not taking explicit account of the strand in his thought which would deny any cognitive status to incorrigible first-person avowals. But as my argument in this chapter should show, I don't think this view is essential to Wittgenstein's pragmatic insights.

of correctness. One would like to say: whatever is going to seem right to me is right. And this only means that here we can't talk about 'right'. (PI 258)

There are not two things here: the identification of a mental state of a certain kind and the application of a certain linguistic expression. For me to use the designated expression is for me to classify my present mental state as being like the paradigm. And since it is a mental state that is at issue, my authority is complete, what I say goes. How then could my application of the expression be incorrect? In a social language, the community which determines whether a given utterance is a correct use of an expression is different from the individual who utters the expression. There is accordingly room for a judgement of incorrectness. But in the case we are imagining, the individual who produces the utterance and the one who judges its correctness with respect to the original rule or definition are identical. There can be no check of whether a given performance is in accord with the rule which is independent of the performance itself. Indeed, there can be no evaluation which is not identical to the performance. Issuing the utterance is taking it to be in accord with the rule, and since we are dealing with mental rules, there is no difference between the individual's taking the performance to be in accord with the rule and its actually being so.

What I do is not, of course, to identify my sensation by criteria: but to repeat an expression. But this is not the end of the language-game; it is the beginning. (PI 290)

At any rate in the full-blooded languages which consist of social practices, the use of an expression involves two components, the process (possibly objective) of uttering the expression, and the evaluation of

the correctness of that expression by the community. For the language with mental rules for the application of expressions, only the first of these components is possible. One may wish to call an activity with no rules whatsoever a game, but one may not then go on to claim that there is a difference between playing it and not playing it. It is just so with a mental language, for which there is no sense to the claim that an expression was misused.

Nor is it of any use to consider the individual at a different time in an attempt to get a contrast between performances made in accord with a mental rule and those not. In the case imagined one would remember the situation in which a particular expression was used, and judge that that situation was not in fact one in which the expression is appropriately used according to the mental rule, though it seemed at the time that it was. But this just postpones the question of correctness. Correctness of the original performance is judged by a later performance. But unless there is a difference between this later performance being correct and not being correct, we have simply complicated our rule-less game so that utterances of a performance can be "taken back". We would have a distinction between utterances which had been withdrawn, and those which have not been withdrawn (yet). If we take this to be the difference between correct and incorrect uses of an expression, we are simply giving my present statements authority over past ones by stipulation. Not only is there no guarantee that I will withdraw future statements of mine made under similar circumstances to the one I have just withdrawn, this claim does not even make sense. My withdrawals of utterances are not themselves either correct or incorrect, they are simply made or not made. There is no difference between rule-guided withdrawal of claims and random withdrawal of them. And as

Wittgenstein complains in the passage above, this makes the entire language-game consist of repeating various expressions. Criteria of correctness are lacking.

I have now said all that I want to say about what the argument of the Investigations is. We have seen Wittgenstein argue for the ineliminability of social practices, things with a certain sort of criterion of identity. He has argued further that things of the other categories, objective and mental things, may be invoked in our explanations of meaningfulness and understanding insofar as they enter into the processes we are trained to partake in—how we actually continue a sequence or apply a term to a novel situation. But we must not forget that it is by virtue of the response of the community to performances which result from such processes which make those performances correct or incorrect, a matter of understanding or meaning something rather than simply doing something. The ineliminable element of social criticism and evaluation ensures that the objective or mental processes must be considered as aspects of a social practice (pieces out of which the practice is built) rather than as the cognitive practices themselves. Before passing in the next chapter to the consideration of where the pragmatist's project goes from here, however, I would like to discuss briefly another interpretation of the Investigations, which applies something like the line of thought I have employed, but does not carry it through to the conclusions we have reached. The other view is Rosenberg's, and his approach is interesting in its own right.

In an unpublished manuscript "On the Concept of Linguistic Correctness", Jay Rosenberg tries to develop the background necessary for some utterance to be correct or incorrect by starting with an

impoverished speech situation, and gradually deepening it as required in order for a notion of correctness to apply. It is clear to begin with that if we consider a single utterance in isolation we cannot say whether it is correct or incorrect. What do we compare it to? Where is the standard? As an isolated event the utterance is not distinguishable from a shriek or random eructation. It may indeed be elicited by its environment, but in some sense that is true of every such event. Rosenberg enriches the situation by allowing consideration of the diachronic behavior of the subject with respect to utterances of this type. We look at his past occasions of use of the same expression. Here we can say of the original utterance: It is correct if it is consistent with his previous use of that expression, incorrect if it is not consistent with that previous usage. It is easy to see that Wittgenstein's arguments about "going on in the same way" apply to this situation. We can always make up some rule according to which the novel utterance is consistent with past usage (even if we have to use grue-like predicates in stating that rule). Rosenberg then considers the possibility we ended our discussion of the private language argument with, namely the suggestion that the subject could legislate correctness himself, by overruling or withdrawing earlier inclinations to utter an expression according to his memory of them. It is worth citing Rosenberg's rendering of Wittgenstein at some length:

Prima facie, there are five possibilities:

- (C1) The memory and the inclination cohere and both are correct.
- (C2) The memory and the inclination cohere and neither is correct.
- (F1) The memory and the inclination conflict. The memory is correct and the inclination incorrect.
- (F2) The memory and the inclination conflict. The inclination is correct and the memory incorrect.
- (F3) The memory and the inclination conflict and neither is correct.

The problem, however, is that the resources available in our setting are completely exhausted by the distinction between

- (C) The memory and the inclination cohere. and
- (F) The memory and the inclination conflict. (p. 9)

He acknowledges that we can just decide in favor of (C) and (F), but concludes:

What we, in fact, need for the concept of correctness to be well-founded is that there not be scope here for a ruling at all. That is, where responsive inclinations and ostensible memory conflict, it should be able to turn out sometimes that the inclination is correct and the memory faulty, and sometimes conversely. The epistemology of correctness is one of discovery, not of legislation. (p. 10)

Rosenberg concludes that a community is necessary for there to be a genuine notion of correctness. From the point of view of our discussion of the Investigations, Rosenberg is using our intuitions about the notion of correctness to develop the characteristics of social practices. For it is only as instances of social practices that performances can be correct or incorrect. There is nothing to quarrel with in this, though it is worth pointing out that nothing special about linguistic practices need be appealed to. The argument would go through equally well for any social practices, for instance for greeting-gestures, playing a game, or following a sign-post.

I do think Rosenberg goes seriously wrong in the final situation he imagines, in the way in which he envisions the community of language-users determining correctness of individual performances. His official statement is that it is "consilience with the community of language-users" that is the standard of correctness. But he does not mean by this what we have meant in our discussions. Here is his summary (p. 18):

Represent a single responsive utterance of an individual by a point on a piece of paper; his diachronic responsive practice [I would say, habit] by a curve drawn through a

series of such points. The correctness of the single responsive using cannot consist in its synchronic correspondence with the extra-linguistic world, for every such point represents a vocable elicited by the world, and there is no further sense in which it may correspond or fail to correspond to the world which elicits it. Nor can the correctness...consist in its being a manifestation of an individual's consistent responsive practice, for no distinction between consistent and inconsistent practice can be funded for any individual. A smooth curve can be drawn through any series of points. What is required is a basis of comparison internal to this conceptual space, yet external to the individual's practice, against which it can be measured for consistency. What must be added to our picture if such a basis is to be provided is a family of parallel curves, collectively singling out one (complex) direction from among the infinitely many possibilities. And what this represents is exactly the consilient responsive practices (the shared form of life) of a community of language-users.

Rosenberg is claiming that what makes an instance of my habitual responsive utterance correct is that it is an instance of the same or a similar habit that my neighbors exhibit. It is not consistency with my earlier habit that matters (for that is vacuous), but consistency of my habit with my neighbors. We must all do the same thing. But this argument fails to appreciate the range of applicability of Wittgenstein's argument about "going on in the same way". No matter what my neighbors do, and no matter what I do, there is some description under which we are doing the same thing. There is no more an objective sense of the "consistency of my habitual performances with those of my neighbors" than there is an objective sense of the "consistency of my current performance with my past performances". The point can even be made within the model Rosenberg erects in the passage above. The equivalent of taking the property of being parallel to a family of curves as equivalent to consistency is simply the analog in two dimensions of taking collinearity to be the measure of consistency in time alone. Any family of curves is consistent under some description, generable by some rule,

just as any family of points is. Taking parallel curves as a distinguished family by virtue of the simplicity of the rule relating them is no less arbitrary than taking points lying on a straight curve to be the distinguished family definitional of consistency in that case. Considering together all the punctiform performances of a community does not allow one to make objectively non-arbitrary decisions as to what set of lines drawn through them represents "consilient" sets any more than considering all the performances of one individual allows one to make objectively non-arbitrary decisions as to what lines one might draw represent "consistent" sets. The infinite set of complex directions of families of curves are exactly on a par with the infinite curves of families of points invoked in the earlier argument.

For the point of the appeal to social practices in our account is that it is the community that decides what is consistent or consilient. One cannot simply look at the uses of a particular expression by other members of the community in order to see whether a particular performance is correct or consilient. One must see how the other members of the community react to the performance, what sort of criticisms they offer, whether they know what to make of it. And to see this one must look at other practices besides just the use of the one expression. A community cannot in the ordinary sense have only one social practice (though on Rosenberg's model there is no reason why this should not be so). For in order for the use of one expression to be part of a social practice, there must be critical and evaluative practices of responding to such performances. And only in exceptional cases could these critical practices be identical to the practices they respond to. (We would have to imagine a community which had only practices of using expressions in response to the use of other expressions. Such a community would have

no observations or reports, no language entry moves at all. But this is not inconceivable. And for such a community, no doubt we could cook up a complex description which made all of their practices instances of a single complicated one.) Objectively, without reference to the behavior of any individual or community, any set of performances is consistent and consilient. The only way that actual judgements of correctness can be founded is by looking at which of these infinite possible senses of consistent or consilient the community manifests in its training in and criticism of the performances of its members. It is this critical dimension which Rosenberg leaves out of his discussion, though his own arguments can be applied to show the inadequacy of his stopping place.

Chapter II: The Mental and the Real

In examining Wittgenstein's Investigations we have seen the pragmatist's objections to the first legacy of Descartes, the specially-criterioned category of the mental taken as the medium of human cognition. We have seen further the pragmatist's response to the objectivist criticism of this Cartesian legacy, epitomized by the Tractarian who takes meaning and understanding to consist of objective processes and relations, rather than mental ones. And we have seen something of how objective and mental processes might enter into social practices, helping to produce the performances which the community will judge to be instances of such a practice. The project which will occupy us in Chapters III, IV, and V is the philosophical or epistemological project which is Descartes' second legacy. The challenge which this legacy presents to the pragmatist is this: if the use of a language, the application of expressions, consists of social practices which are whatever some community takes them to be, as Wittgenstein has argued, how is it that those practices enable the community to talk about objective things, which are independent of the community? What is it about certain social practices in virtue of which they are appropriately thought of as making claims about objective things, claims which are not merely correct or incorrect as instances of a practice of using an expression, but true or false? How can an utterance express not simply a practice which is whatever the community takes it to be, but a view of the way the objective world is, independent of the community? According to the Cartesian tradition, all of our cognitive interaction with the objective world is by means of the elements of that medium with which alone we have direct, immediate commerce, namely the mind. It must then be shown how we can know

things about the objective world by having various thoughts and sensations. This is a project with which the Cartesian tradition had only limited success. When the project failed, the result was a phenomenalism which concluded that because all cognition is by means of mental particulars, only mental particulars are knowable, that all knowledge is of mental particulars. There is a parallel danger for the pragmatist tradition. It is the danger that one might conclude from the fact that all cognition is by means of the social practices which make up our languages, that these practices are all that is knowable. This position is instrumentalism, a position confused with pragmatism as often as phenomenalism is confused with Cartesianism. The prime project of this thesis is to show how knowledge which consists of social practices can be knowledge of objective states of affairs.

Before passing to the details of that project, however, we may notice that we have so far accepted uncritically the notion of things of the first and third kinds, mental and objective things, although the only sort of thing we have actually examined in any detail is social practices, which Wittgenstein discusses. Accordingly, in this chapter we will first of all discuss the pragmatist's account of how it is that we can have social practices of using expressions which are appropriately taken to be reports of mental things. It will be useful to have this account in front of us when we tackle the project of explaining how we can have social practices of using expressions which are about objective things. Further, this account will enable us to exhibit a legitimate line of thought which could lead a pragmatist into instrumentalism, that is, could lead him to try to eliminate the category of objective things in favor of the category of social practices.

Instrumentalism will then be discussed in Chapter III and rejected in favor of another account of the relation of objects to social practices, which is elaborated in Chapters IV and V.

I

In the Investigations Wittgenstein does consider the problem of explaining how there could be public social practices of reporting private mental events. His discussion is confused, and, I think, ultimately unsatisfactory. There is an account of the social practices we use to talk about mental things, however, which may be extracted from Sellars' "Empiricism and the Philosophy of Mind" and Rorty's "Incorrigibility as the Mark of the Mental". In line with our general policy of trying to develop the best account possible of pragmatism, in terms of the best efforts of those who take social practices to be the medium of cognition, we will explicate their view. Rorty summarizes the Sellarsian "Myth of Jones" which is the background for his discussion and ours, as follows:¹

On his "mythical" account, thoughts were originally theoretical entities, postulated as "inner" states that explained certain sorts of behavior...They shared the "semantical" features of sentences [were "about" things]...but had no other features. Sensations, in turn, were also originally theoretical entities—"inner" states postulated to explain the occurrence of certain thoughts (e.g., the thought that there is a red triangle before me, when there isn't). [Thoughts and sensations were] inferred entities—known to exist, by inference from the behavior they cause. It is only after Jones has instructed others in his theory and subjected them to a prolonged training process that it turns out they can make non-inferential reports of their own inner states.

¹"Incorrigibility as the Mark of the Mental", Journal of Philosophy IXVII 12 (June 25, 1970) p. 411.

Rorty's view is that "Jones did not invent the concept of mind by inventing the notions of unobservable inner states with certain intrinsic features."² Thoughts and sensations became mental only when the non-inferential reports of these entities which it turned out that people could make came to be taken to be incorrigible. And Rorty offers a straightforward pragmatic account of the acquisition of this incorrigibility in terms of social practices. Rorty calls an utterance-type "incorrigible" if in the community within which it is used there are no procedures for overruling it. Reports of thoughts and sensations became incorrigible when certain critical practices regarding those reports were discarded by the linguistic community:

It became a regulative principle of behavioral science that first-person contemporaneous reports of these postulated inner states were never to be thrown out on the ground that the behavior or the environment of the person doing the reporting would lead one to suspect that they were having a different thought or sensation from the one reported. In other words, it became a constraint on explanations of behavior that they should fit all reported thoughts or sensations into the overall account being offered. This constraint came to be reflected in linguistic practice, so that the expression 'You must be mistaken about what you're thinking', which had had an established use in the past (viz. to reflect apparent conflicts between behavior or environment and reports) fall into desuetude.

Rorty, of course, completes his argument for "eliminative materialism" by pointing out that these discarded critical practices, or new ones derived from great advances in neurophysiology, could be re-instituted in the community, with the result that nothing would have the special

²Ibid., p. 412

³Ibid., p. 416.

characteristic of incorrigibility which allows us to assimilate such different things as thoughts and sensations under the single label "mental", while excluding physical occurrences which are "inner" only in the sense of being under the skin. (Rorty also discusses his reasons for distinguishing the mental from the psychological—such things as beliefs and desires which are not easily thought of as events or particulars—but it is beside the point we are most interested in to consider his subtle remarks here.) We are not concerned with this particular thesis, or even with the argument to the effect that incorrigibility is a better "mark of the mental" than, say, non-spatiality, for we have presupposed this much of Rorty's view in setting up the criterial classification of things into those which are whatever one person takes them to be, those which are whatever some group of people takes them to be, those which are what they are regardless of what any person or group of people takes them to be.⁴ At any rate, I have nothing to say in support of this view that he has not already said.

It will be useful, however, to consider an elaboration of this account of how practices of issuing reports on one's inner states can become incorrigible. The elaboration is suggested by Sellars' account of the "looks" or "seems" idiom in "Empiricism and the Philosophy of Mind". According to this account, the practice of making seems-reports arises out of a situation in which there are sufficient

⁴That is, by using the sort of classification we presented in the previous chapter we have stipulated that thoughts and sensations are mental contents inasmuch as individuals are incorrigible about them, and correspondingly, that beliefs and desires are not mental things, where Rorty is concerned to argue for the cogency of such a view, and for its historical usefulness.

regularities perceivable in the mistakes that users of the language make in their ordinary reports of their surroundings to warrant the introduction of a special idiom for use under those circumstances when according to the training one was originally given in the use of an expression, one should utter a token of that expression, but in view of the regularities governing mistaken utterances of that type (those later overruled in accord with the standard critical practices) the speaker has reason to believe he may be mistaken in doing so. Individuals are trained in the social practices of saying "I see X," "I hear Y," and so on. They go wrong sometimes, and it becomes known that under certain conditions (say, altered lighting, or background noise), one is very likely to be wrong. In such a case one makes the weaker claim "It seems to me that I see X" which is understood to be noncommittal as to whether X in fact holds. That is, it is not appropriate to criticize such an utterance in the circumstances in which one would criticize the utterance "I see X". When one says "I see X" and is criticized, he can say "It seemed to me that X". The "seems" statements are so used that whenever a report is incorrect, the corresponding "seems" statement is correct. It is in this way similar to "I wanted to say that I saw X".

Thus "seems" is a non-iterable sentential operator—one cannot say "It seems to me that it seems to me that X". The first "seems" is stipulated to have made whatever qualifications are necessary for the statement to be correct. There is no further work for the second, outer "seems" to do. This is simply a matter of the social practice which governs the use of the expression. Because of this feature of the use of the "seems" idiom, there are things, namely "seemings", or "how things seem to me", about which we cannot be overruled, and are hence incorrigible. The social practices of using the expression are

such that there is no way to overrule the statement "It seems to me that X". The incorrigibility of "seemings" can be expressed by saying that of such events it makes no sense to say that it seems to one that one of them is occurring rather than that one is occurring. Now I suggest that we understand the lesson which Rorty teaches us about incorrigibility, and which Sellars teaches us about "seemings" and the introduction of thoughts and sensations as theoretical entities invoked to explain various bits of linguistic behavior, as follows. Mental events are those which we report with expressions which fit into the same linguistic niche that seemings do. The notion of a linguistic niche is here to be taken as parallel to that of an environmental niche which an evolving organism can occupy. That sort of niche is specified in terms of what sort of terrain the organism occupies, what it feeds on and what feeds on it, and so on. The particular property which I have in mind as specifying the linguistic niche which "seemings" define for other mental events is the inappropriateness of embedding such things inside "seems" operators. Thus "It seems to me that I am thinking of a red bear" is a peculiar utterance in that "I am thinking of a red bear" is already an incorrigible utterance. I am suggesting that the mark of incorrigibility is not being appropriately qualified by a "seems" statement. The "seems" is just as superfluous in the statements "It seems to me that I am in pain" or "It seems to me that I am imagining a triangle" as it is in "It seems to me that it seems to me that that is a triangle". Thus the non-iterability of the "seems" operator defines a class of activities which are species of seemings, behaving just like seemings in "seems" contexts. Thus "seems" talk is a sufficient condition for the existence of incorrigible statements. Thoughts and sensations are kinds of entities which are reported by expressions which cannot appear

embedded in "seems" statements.⁵

This story derived from Sellars and Rorty about the origin of the incorrigibility of mental contents is important because of the epistemological moral which can be drawn from it for those like Russell who think that

...by showing that subjective things are the most certain Descartes performed a great service to philosophy, and one which makes him still useful to all students of the subject.⁶

and seek to justify all our knowledge in ultimately subjective terms for that reason. For there is nothing epistemologically useful about incorrigibility according to the pragmatic account we have given of it. The "seems" operator which creates the linguistic niche within which mental events and processes thrive must be added to a language which already has more basic sentences which can be embedded in "seems" contexts. And we have seen that those more basic sentences cannot have the incorrigibility characteristic of "seems" statements. The "seems" idiom can thus be added only to a language which already has other sentences in use which are not incorrigible. Given ordinary, corrigible reports, the "seems" idiom offers a way of producing trivially

⁵In fact we are skipping ahead a bit in taking "seemings" to be things reported by certain utterances in accord with a practice. Taking this notion of reports for granted here is not pernicious, however. The notion of a report as an instance of a non-inferential, language-entry practice will be discussed in the next chapter. In Chapter IV we will see how sentential operators like "It seems to me that..." require us to associate a content with utterances which can fall inside their scope, reports included. Finally, in Chapter V, we will see how such reports can refer to other things. Thus the promissory note issued here in our talk of reports of mental contents will be redeemed in what follows.

⁶Problems of Philosophy (Oxford U. Press, New York, 1959) p. 18.

incorrigible reports from them. Sellars and Rorty have developed this line of thought in considerable detail, to show the error of traditional epistemological programs which seek to ground the authority of ordinary claims in the incorrigibility of these "seeming" analogues. When once the priority of ordinary, corrigible utterances has been understood, there will be little desire to "justify" them in terms of the incorrigible utterances which are derivative from them.

We thus see that the pragmatist has available to him a straightforward account of how there could come to be practices of issuing reports which are incorrigible, and which are therefore reports of things of the first kind according to our criterial classification of things. The pragmatist can thus be comfortable with things of the first kind, as well as with social practices. Further, the line of thought we have just considered completes the pragmatist's refutation of the Cartesian view of the mental as the medium of cognition, by showing that the specially-criterioned realm of things which was Descartes' first legacy will not support the sort of epistemological justification demanded by his second legacy. The incorrigibility of mental is no ground on which to base claims about the correctness of ordinary corrigible claims. We have seen how social practices of using linguistic expressions can have special characteristics (not shared by such social practices as using greeting-gestures or making a certain kind of teepee) in virtue of which it is appropriate to understand them as reports of things of the first kind. Our major project in this thesis is to exhibit similar special features which will justify us in attributing reference to objective things to expressions governed by social practices. Before entering into the details of that undertaking, however, we will find it worthwhile to use the picture of

the mental which we have just considered to confront the classical notion of the real which in the Cartesian tradition is contrasted with the mental realm of fictions and fancies.

II

The notion of objective things, comprising a realm of external reality conditioning the realm of the mind is a central one in the Cartesian tradition. Before we can seek an account of the possibility of knowledge of this realm in terms of the social practices which are the medium of cognition according to the pragmatist, we must consider how this sort of thing was thought of by the Cartesians in the context of a two-sorted ontology which recognized only objective things and mental things, and assigned at best a derivative status to social practices. Only in the light of such an investigation can we understand the temptation of those who see social practices as the medium of cognition to ontologize their insight, and to try to eliminate all reference to objective things in favor of reference to social practices. Again, it is only if we understand the traditional relation between the mind and the real world that we will be able to understand the attempt to lump the ontologized pragmatism of the instrumentalists in with idealism, by those who see social practices as somehow mind-dependent.

The notion of the real as a realm to be contrasted with the mental is introduced by Descartes in the Third Meditation by means of the distinction between 'adventitious' and 'fictitious' ideas. Adventitious ideas are

...those ideas which appear to me to proceed from certain objects that are outside me...these ideas do not depend upon my will nor therefore on myself—for they often present themselves to my mind in spite of my will. Just now, for instance, whether I will or whether I do not will

I feel heat, and thus I persuade myself that this feeling, or at least this idea of heat, is produced in me by something which is different from me.⁷

(Gassendi objects in the Fifth Objections that Descartes is not entitled to a distinction between such ideas and fictions which do not proceed from something independent of my mind, and indeed he is not. But our concern here is only with the idea, not its justification.) It is this same sort of external objective realm imposing itself on our inner representations which Kant takes it upon himself to prove the existence (indeed, necessary existence) of in the Refutation of Idealism, when he asks:

...whether we have an inner sense only, and no outer sense, but merely an outer imagination. It is clear, however, that in order even only to imagine something as outer, that is, to present it to sense in intuition, we must already have an outer sense, and must thereby immediately distinguish the mere receptivity of an outer intuition from the spontaneity which characterises every act of imagination.⁸

Idealism is the claim that the spontaneity which produces fictions of the mind is all there is. Russell's rendition of this notion is as follows:

In fact, almost all philosophers seem to be agreed that there is a real table: they almost all agree that, however much our sense-data...may depend upon us, yet their occurrence is a sign of something existing independently of us...⁹

⁷Philosophical Works of Descartes Vol. I, ed. Haldane and Ross (Cambridge U. Press, Cambridge, 1911) p. 160.

⁸Critique of Pure Reason, N. K. Smith translation (St. Martin's Press, New York, 1929) B 277

⁹Problems of Philosophy, p. 15.

I mention these other versions of the distinction we will be considering because the most careful statement of the issue, and the one which our discussion will center on, is that of Peirce, and I would not want it thought that we were playing with a deck stacked by taking a pragmatist's statement of a problem for which we will discover a pragmatic resolution.

Peirce's official definition is: "That which any true proposition asserts is real, in the sense of being as it is regardless of what you or I may think about it." (5.432,¹⁰ see also 5.384, 5,405, 5,430, 5.565).

A closely related notion is that of the "external":

...the 'external' means simply that which is independent of what phenomenon is immediately present, that is of how we may think or feel; just as 'the real' means that which is independent of how we may think or feel about it... (8.14)

The distinction is needed because Peirce does not want to deny that there are facts concerning, e.g., what people would think if they were put in a particular perceptual situation, say that which induces the Müller-Lyer illusion. Such psychological facts are not external because they do depend on what people think or would think, but they are not unreal since no group of people can change the facts of the Müller-Lyer illusion by changing what they think about it. Everything external is real a fortiori, but not all reals are external. Now the crucial question we must ask is: what is meant by independence of thought? If I can only destroy a bridge by considerable thought aimed at discovering its structural weaknesses

¹⁰This and all subsequent citations from Peirce are from Collected Papers of Charles Sanders Peirce, edited by C. Hartshorne and P. Weiss and P. Weiss (Harvard U. Press, Cambridge, 1965). Whole numbers refer to volumes, numbers after the decimal refer to paragraphs.

before attacking it, the existence of the bridge is not in that respect independent of my thought about it. Peirce could not mean to be claiming that something is real just insofar as it is immune to alteration by thoughtful purposeful action. Rather, he must mean that which is immune to alteration by thought alone. My image of a table can be changed from blue to red just by my deciding to do so. The real table can be changed only with the help of paint, however much I might think.

Any object whose attributes, i.e., all that may truly be predicated, or asserted, of it, will and always would remain exactly what they are, unchanged, though you or I or any man or men should think or should have thought as variously as you please, I term 'external', in contradistinction to the mental. (6.327)

Thus we see the origin of the notion of 'objective things', or things of the third kind which we appealed to in Chapter I, just as we saw the origin of the notion of the mental, or things of the first kind, in the first part of this chapter.

In the rest of this section I will seek to show that the classical notion of the real serves the function of constraint of our fancy. This function requires an aspect of the Cartesian notion of the mind which we have not yet considered, that of the will. We will develop this notion here, and in the next section exhibit the formal property which links the will to the incorrigibility of mental contents we have examined in the first section of this chapter. We will present a pragmatic reconstruction of that characteristic, parallel to the pragmatic reconstruction of incorrigibility we have derived from Rorty and Sellars. Finally, we will see how this reconstruction opens the possibility of social practices performing the function heretofore reserved for an external world of objective things, the instrumentalist view we will seek to refute in the next chapter.

So far, the notion of the real has been exhibited by means of a distinction between things which can be changed merely by the activity of "Thinking about X" and those which cannot. Now we may ask: What do we learn about things by dividing them up in this way? What is it about thinking which makes a classification based on its capacity to alter things more significant than any other classification in terms of some human activity which differentiates the things classified? Thus we can consider those things which I can alter merely by digging a hole with a spade, and those things which I cannot so alter. In the former category would be holes, tunnels, graves, and so on, and in the latter would be the square root of seventeen, Plato's Republic, and the interior of distant black holes. For what problem is the classification induced by thinking illuminating (and that induced by digging not)? I think the key may be found in some other passages of Peirce, echoed by Russell. Peirce says:

...the real is that which insists upon forcing its way to recognition as something other than the mind's creation. (1.325)

That the real is other than the mind's creation is implied by the previous definition—since the mind is independent of what I think about it, it is something other than my thought about it. That this otherness is "forced" upon us is an element we have not yet encountered, however

...reality is insistency. That is what we mean by 'reality'. It is the brute irrational insistency that forces us to acknowledge the reality of what we experience. (6.340)

...to assert that there are external things...is nothing different from asserting that there is a general drift in the history of human thought which will lead it to one general agreement, one catholic consent. (8.12)

What is important here is not the "one general agreement", but the constraint on our thinking which the real, external world exerts on our thought. Russell characterizes the realm of fact in terms of the same two elements: that facts don't depend upon what we think about them and that what we think is constrained by the facts:

I mean by 'fact' something which is there, whether anybody thinks so or not...Physical facts, for the most part, are independent, not only of our volitions, but even of our existence...The whole of our cognitive life is, biologically considered, part of the adaptation to facts.¹¹

This element of constraint of the mind, stubbornness to volitions, seems to me to be the key to understanding the role the notion of reality played in the classical philosophical tradition. The fact of being forced to think one thing rather than another suggests an answer to our question why the classification generated by considering alteration by thinking alone should be more important than that generated by considering alteration by digging alone. I think the picture which is being appealed to involves a distinction of two sorts of activities with respect to our control or dominion over them. On the side of fancy are activities like imagining a red bear, or thinking of Vienna. These are activities in which we cannot be thwarted. We can simply do them. No effort is required, because there is no gap between trying and succeeding. Contrasted with this, we find activities like digging, which require the special circumstances (the presence of a shovel, sufficiently soft materials, etc.) for their performance, and over which we do not have total control. The point of defining as real a class of things which are in the relevant sense independent of what we think of them is that we do

¹¹ Human Knowledge: Its Scope and Limits (Macmillan, New York, 1955) pp. 143-144.

not have dominion over these things in the same sense in which we do over the creations of fancy. Reality is that in virtue of which there are activities like digging, in which we are constrained by circumstances beyond our immediate control. The role which the real is to play in our understanding of things is captured in the explanation it is to provide of why we cannot do whatever we want to do simply by wanting to do it, although there are things which we can do simply by wanting to.

Let us consider an activity about which we would say that it is not one over which we have the sort of dominion which is characteristic of the mental activities. Digging is one such. Almost any adult human can be taught to dig with a spade. It is an activity which can be engaged in "mechanically" as we say, meaning that no particular thought is required. It is something that, once trained, one can just do. Nevertheless it makes sense to ask how one goes about digging, that is, one wants to know what one must do, and under what circumstances, for it to be digging. One need not be able to answer this question to be trained to dig, of course. To answer such a question one must explain how and in what circumstances one can dig by doing something else. The "something else" in this case will be moving my arms and back in complicated ways with respect to a shovel and some sand or the like. Once again, moving the arms and back in this way is something people can be trained to just do, but it can once again be asked "How do you move your arms and back in this fashion?" "By doing what do you move in this way?" At this point it is so far from being the case that one must know how to answer such a question in order to engage in the specified activity that we do not know what an answer should look like. We can, however, imagine the victim of an accident, recently paralyzed, trying to remember

how he used to be able to move his arms one way or another. We can say only "I try to move my arms, but nothing happens," but we cannot say what this trying consists of in the way we could say what motions the digging consists of. Our inability thus to describe further what counts as trying to move a "voluntary" muscle marks the end of possible explanations of such movement. One might have said above "I tried to dig by moving my arms and back thus and so (but since I was surrounded by water, performing those actions was not sufficient for me to succeed in actually digging)." Since the trying here had a further description, one could ask how it was done, in turn. But one may not ask how one tries to move "voluntary" muscles.

The fact that such explanations of activity, though they can stop at any point (depending on the circumstances which produce the desire for an explanation) must stop at the attempt to produce "voluntary" muscular activity is the basis for the classical doctrine of volitions. This doctrine is that there are mental entities called volitions which are the first source of all human activity. Ryle says of this Cartesian doctrine:

According to the theory, the workings of the body are motions of matter in space. The causes of these motions must then be either other motions of matter in space or, in the privileged case of human beings, thrusts of another kind. In some way which must forever remain a mystery, mental thrusts, which are not movements of matter in space, can cause muscles to contract. To describe a man as intentionally pulling the trigger is to state that such a mental thrust did cause the contraction of the muscles of his finger. So the language of 'volitions' is the language of the para-mechanical theory of the mind.¹²

¹² The Concept of Mind (Harper and Row, New York, 1949) pp. 63-64.

The story we told about incorrigibility seeks to describe the function which the mind played in Cartesian stories about knowing. The mind has a more or less passive role as the medium of cognition. This means that anything which is not itself mental is known by means of the immediate commerce of a subject with his mental contents, which only represent the known object. The epistemological project is then to account for the possibility of knowing objective things in terms of the relations between mental contents, which alone are immediately available. We now seek a story about indefeasible dominion which will describe the function which the mind plays in Cartesian stories about acting. The mind has an active role here as the medium of activity. This means that anything which is not itself a mental activity is accomplished by means of the immediate mental activity of willing, which under special circumstances results in objective activity, the alteration of the real. A project parallel to the epistemological one is then to account for the existence of activities over which we do not have indefeasible dominion in terms of the interaction of those mental activities for which we do have such dominion and the reality which constrains them. Peirce says:

We live in two worlds, a world of fact and a world of fancy. Each of us is accustomed to think that he is the creator of his world of fancy; that he has but to pronounce his fiat, and the thing exists, with no resistance, and no effort; and although this is so far from the truth that I doubt not that much the greater part of the reader's labor is expended on the world of fancy, yet it is near enough the truth for a first approximation. For this reason we call the world of fancy the internal world, the world of fact the external world. In this latter we are masters, each of us, of his own voluntary muscles, and of nothing more. But man is sly and contrives to make of this little more than he needs. Beyond that, he defends himself from the angles of hard fact by clothing himself with a garment of contentment and habituation. Were it not for this garment, he would every

now and then find his internal world rudely disturbed and his fiats set at naught by brutal inroads of ideas from without. I call such forcible modification of our ways of thinking the influence of the world of fact or experience. (1.321)

We saw earlier that when the Cartesian epistemological project failed, that is, when it could not be explained how our immediate commerce with the mental contents incorrigibly available to us could constitute knowledge of objective things, the result is a phenomenalism which denies that anything but such mental contents is knowable. When the parallel volitional project fails, that is, when it can not be explained how our immediate manipulation of the mental activities over which we have indefeasible dominion can act upon or be constrained by external reality, the result is an idealism which denies that we act upon or are constrained by anything but mental things. The idealists, of course, did not deny that we were constrained in our activities, though their opponents often charged them with this absurd consequence. Rather they had a notion of the mental modelled on beliefs and desires, rather than the fictions of the imagination. We cannot believe or desire whatever we like. The important thing to realize is the equation within the Cartesian tradition, of the notion of an external, mind-constraining reality with a special sort of mental contents or activities, those which Descartes called adventitious ideas, and which we may think of as the products of sensation. Mental contents of this kind may be phenomenally indistinguishable from fictitious ones. We are incorrigible about both, and identical incorrigible reports may be issued concerning the products of sense and the products of imagination. The problem of the real in the Cartesian tradition is to say how, in spite of this phenomenal indistinguishability, the two sorts of mental contents

nonetheless differ, one as the product of unconstrained mental activity, the other as the product of constrained mental activity. The real is to be whatever provides the constraint in this story.

Thus the real is a notion invoked to explain the fact that the subject is incorrigible about all his mental contents, but has indefeasible domain only over some of them. The empiricist insistence that every belief be able to show credentials derived from sensations stems from the belief that only in this way can we keep beliefs out of the realm of fancy (the realm where everything can be as we wish it, for we have unopposed mastery). For according to the empiricists, beliefs are very much like thoughts (we are not concerned with the further assimilation of thoughts to sensations), thoughts which we develop a habit of entertaining. If our beliefs are not then to remain unconstrained fancies, but to represent an extra-mental reality, the habits governing them must be matched to the recurrence of sensations, which are so constrained. The empiricist's concern with reality thus expresses itself as an attempt to say in detail how the constraint on our sensations can be carried over to our beliefs. Insofar as those beliefs are not subject to the constraint transmitted by sensations, they are subject merely to fancy. Rationalists share with empiricists the Cartesian rendering of reality as whatever constrains the mind, but deny that sensation is the exclusive, or even most important medium or vehicle of that constraint.

Our discussion of the notion of reality has so far been firmly centered in the two sorted ontology of the Cartesian tradition. Against this background it is easy to see how an emphasis on social practices could be taken to be a form of idealism (as in Hegel's own self-understanding, and one popular philosophical appraisal of Dewey

and Peirce). For social practices can seem to be mental sorts of things, too subject to the will of those who engage in them to express the robust constraint of the mind by the real which the tradition rightly demands. The empiricist may be pardoned for shouting "Idealism" at the efforts of Wittgenstein, Dewey, or Sellars to render even sensation in terms of social practices (e.g., of making incorrigible reports). Accordingly, in the next section we will consider a pragmatic rendering of indefeasible domain and constraint in terms of social practices, parallel to the rendering of incorrigibility in the beginning of the chapter.

III

I want to claim that indefeasible domain over inner, mental activities is of the same trivial, stipulative nature and origin as we have seen the property of incorrigibility which characterizes our knowledge of inner, mental events to be. This will complete our pragmatic analysis of the Cartesian concept of mind, and prepare the way for the next chapter to begin the development of a pragmatic account of objective things. Our approach is to account for our dominion over the realm of fancy in terms of the "tries" idiom in a way formally analogous to that in which we accounted for incorrigibility in terms of the "seems" idiom in the discussion derived from Rorty and Sellars in Section I.

The basic point of the analogy is that just as the "seems" operator forms a report such that there is nothing in the language which counts as sufficient evidence to contradict it, so the "trying" operator forms a description of an action for which nothing counts as sufficient evidence that the action was not performed. The important formal point is that just as "seems" operators cannot be iterated

(It seems to me that it seems to me that p,") neither can "trying" operators ("I am trying to try to do X,") The first "seems" already hedges against the possibility that the basic report to which it applies (that-p) is incorrect. A second "seems" is redundant. Similarly, the first "trying" already hedges against the possibility that the action to whose description it applies (doing X) has not been successfully accomplished. The second "trying" is redundant. And just as this characteristic of the "seems" operator creates a linguistic niche within which incorrigible reports other than literal "seemings" may occur, so the same characteristic of the "trying" operator creates a linguistic niche within which fit descriptions of indefeasible activities other than literal "tryings". Thus one cannot in the ordinary sense try to think of Philadelphia because one cannot fail. There is here no difference between the effort and the accomplishment. There just is no sentence which is appropriately used to describe the failure of one's attempt to imagine something red. There is nothing startling or mysterious about this limited sphere of omnipotence resulting from the way the "trying" operator works. The "seems" operator ascribes a correct report behind every incorrect one, and the "trying" operator ascribes a successful activity behind every unsuccessful one. We use the "trying" operator in such a way that one can always succeed at trying to do X, whatever troubles one may have actually doing X. This provides a mechanism for the introduction of other terms which behave similarly inside "trying" contexts, so that the whole class of terms will be such that nothing is evidence for having failed in the attempt to engage in the activities referred to. We can see the usefulness of an operator like "trying" in describing our ordinary practices. For ordinary activities like digging, one can actually say what the trying

consisted of—e.g., certain movements of the back and arms—and why it failed, just as one can often say why it is that things seemed a certain way. The extension of the use of these operators to cases in which no activity was successfully engaged in which can be described by the language without the operators of the mental expressions they epitomize is linguistically straightforward. So we can explain how we could come to talk about reports which are incorrigible and activities over which we have indefeasible dominion by starting off talking only about ordinary corrigible reports and activities in which we may be frustrated. I conclude that we understand the reasons for the existence of a class of activities which we cannot attempt to engage in and fail when we have noticed the non-iterability of the "trying" operator, and the reason for it. The reason for that non-iterability is the way the conditions under which it is appropriate to say "I am trying to do X" relate to the conditions under which it is appropriate to say "I am doing X". And this relation is to be understood by analogy to "seems": When one is behaving in the way one was trained to behave so that "I am doing X" should be assertable but is not, or may not be, then one says "I am trying to do X". When one is behaving in the way one was trained to behave so that "This is red" is assertable (one is following the reporting practice as it was taught) but it is not or may not be assertable, then one says "It seems to me that this is red."

We may now ask what new light we can shed on the notion of reality given our appreciation of the relation between the two sorts of activity, those over which we have sole and total dominion and those in which we can be thwarted. We have said that the real is definable once we have discriminated a class of activities such that we cannot try to

engage in them and fail. The real will be whatever cannot be changed merely by engaging in such activities, and which constrains our other activities. The fact that we are constrained by something in our everyday activities can be rendered in terms of the existence of activities such that different sorts of things count as trying to do them, under different circumstances, and that a given sort of trying may be successful under some circumstances and not others. To succeed at performing some such actions, then, we must take account of circumstances which are external in the sense that we cannot alter them merely by performing one of those actions which we can do just by trying, and hence have dominion over. If I raise my arm, trying to signal a bus, there must be no opaque objects between me and the driver of the bus for my "trying" to succeed. No activity that I can engage in merely by trying to can alter that requirement. This is nothing other than to say that the existence of activities which we cannot do just by trying to do them constrains us. For any activity which we can try to engage in and fail, such as signalling a bus, there must be some conditions of success which are not dependent merely on our tryings (else we could not try and fail). We are therefore constrained just insofar as there are activities which we cannot do just by trying to do them. Now the important thing for Peirce, as for the empiricists and the Cartesian tradition in general, is that what we believe is constrained in this fashion. Within our framework, this is just to say that believing is not one of the things one can do simply by trying to. That is, it must be sensible to say things like "I have tried to believe in the immortality of the soul, but I just can't." Of course we do say things like this, and effort is often required to come to believe (or desire) something. Othello tried to

believe his wife honest and failed. The world of fact is that in virtue of which there are activities of this kind. The function of the real or the factual is to explain why it is that there are things which we cannot do simply by trying to do them.

Our analysis of the distinction between activities over which we have indefeasible dominion and those over which we do not undercuts the project within which this notion of the real or the factual has a role. For as we have told the story, the existence of activities which we can engage in merely by trying is dependent on the prior existence of activities which we can try to engage in and fail. That is, the "trying" operator must be introduced into a language which already talks about things one can try to do and fail (such as signalling a bus). The primary and essential role of the "trying" operator is to make this distinction between "doing X" and "trying to do X". It is a relatively trivial consequence of its performance of this role that the "trying" operator is non-iterable, and so generates a linguistic niche for expressions referring to activities which, like trying itself, cannot fall within the scope of a "trying" operator, and hence exclude the possibility of failure. In sum, activities which can be done just by trying to do them are a by-product of activities which one can try to do and fail, not the other way around. We do not need a notion of the real to explain why not all enterprises of ours are such that we can do them just by trying to do them. For the practices by which we talk about such activities are dependent upon the existence of the practices by which we talk about the supposedly problematic activities at which we can fail, in which we are therefore constrained. Once we have seen how "tries" works, we can no longer maintain the Cartesian stance in which we take activities over which we have indefeasible dominion for

granted and find others problematic, requiring a further notion of "the real" to explain them. The classical notion of reality is not legitimate insofar as its use involves adherence to the Cartesian notion that the existence of constrained activities is problematic in a way in which the existence of unconstrained ones is not. Insofar as the notion of the real involves merely the idea that we are constrained, of course, it is as unobjectionable as it is unilluminating.

It is interesting to note that in showing that the notion of a realm of unconstrained fancy over which the subject exercises an indefeasible dominion presupposes the existence of constrained activities (with respect to which alone the "trying" operator can be sensibly introduced) we have provided a pragmatic version of Kant's Refutation of Idealism in the Critique of Pure Reason. There Kant was concerned to show that the notion of inner experience already presupposes the notion of something outside itself which it represents. The idealist cannot, accordingly, give a coherent description of the situation he imagines, in which we are certain of our inner representations but either cannot be sure there is anything else (skeptical idealism) or claim that there is not in fact anything else (dogmatic idealism).

Kant's statement is:

In the above proof it has been shown that outer experience is really immediate, and that only by means of it is inner experience—not indeed the consciousness of my own existence, but the determination of it in time—possible. (B276-7)

At least one line of argument which Kant develops in the condensed and more or less confused Refutation is strictly parallel to our argument. For Kant may be understood as trying to show that the notion we have of a faculty of spontaneity (the realm of our dominion) must be extracted

from a notion of its function in concert with a faculty of receptivity (the source of constraint), and cannot be coherently described out of all connection with that receptive faculty. His specific argument depends on the details of his notion of intuition, and its relation to an order in time, but the conception of what is to be shown would serve as well for our argument as for his.

* * * * *

In this chapter we have tried to be fairly precise about the social practices involved in our talk of mental things. We have looked at some of the roles which mental things have played in the Cartesian tradition, and we have seen how the pragmatist can account for the more mysterious characteristics of mental things (in corrigibility and indefeasible dominion) which enabled them to play those roles. This completes our discussion of the relation of things of the first kind (mental things) to things of the second kind (social practices). In the rest of the thesis we will seek to develop an account of how things of the second kind are related to things of the third kind, that is, how social practices are related to objective things. We will try to show what it is about various social practices involved in language use in virtue of which they are appropriately understood as making claims about objective things, claims which are true or false objectively, independent of what any person or group of people thinks or does. Our discussion of the notion of reality in terms of constrained activities has raised a possibility which must be dealt with at the outset of this undertaking. For our final account of the real is in terms of two kinds of activity, those we cannot try to engage in and fail, and those we can try to engage in and fail. The

first class of these, of course, corresponds to a sub-class of mental activities. But the second can include both objective activities like dying and social practices like marrying. We have set the real off from the mental, but have not said anything about how the social and the objective are related in constraining our activities. And this raises the possibility that all of the constraints can be accounted for solely in terms of social practices, with no need to invoke objective things at all. The view that social practices are the sole source of constraint is instrumentalism. It is not a form of idealism, since social practices do not share the characteristics of the mental. Nevertheless, realists, those who insist on the objective reality of the things we refer to in our theories of the world, have opposed themselves not only to idealism, but to instrumentalism as well. In Chapter III we will consider the relation of social practices to objective things with respect to the dispute between instrumentalism and realism. In subsequent chapters the framework there developed will be expanded and used to develop an account of how linguistic practices of using expressions can endow those expressions with the capacity to make claims about objective things denoted by terms they contain.

Chapter III: Objects and Practices

In this chapter we will examine the dispute between instrumentalists, who would eliminate all reference to objective things in their accounts of human cognitive activity, in favor of social practices, and extreme realists, who would eliminate all reference to social practices in their accounts of human cognitive activity, in favor of objective things. This dispute has developed primarily among people thinking about science, so it is in these terms that we will address it. I will present an interpretation of Dewey's idiosyncratic and often obscure account of the mechanics of inquiry, which exhibits the realist/instrumentalist dispute as a confusion based on an insufficient appreciation of the consequences of abandoning the theory/observation distinction. I will try further to extract from Dewey a corrected account of the functional relations we ought to envisage between objects and practices in our stories about cognitive inquiry. This will reconcile the guiding principles which sustain the dispute unnecessarily today, and provide a framework for our further investigation—of linguistic social practices and the objects they involve—in the subsequent chapters.

I

Within the structure of classical (positivist) philosophy of science there was a genuine and easily formulable issue between realists and instrumentalists concerning the nature of scientific theories. Both parties agreed that statements reporting observations are either true or false, and that the terms used in true observation statements refer to actual objects and properties. The realist claimed that theoretical statements are also true or false, and that if true

their terms refer to actual objects and properties. The instrumentalist regarded theoretical statements as convenient codifications of inferential practices concerning observational statements. Theoretical statements are rather to be read as expressing rules for complicated practices of material inference. The origin of this suggestion for reading putative propositions as rules for inferential practices lies in the fact that in a formal logical system one can in general replace any premise such as "n is an A" with material inferential rules of the form "From 'All As are Bs' infer 'n is a B'".¹ The instrumentalist view was that the whole theoretical apparatus of any scientific view should be treated as involving ontological commitment only to the inferential practices regarding observables which it licenses, and not to the "theoretical objects" in terms of which that license is expressed.²

Beginning with Peirce, the primary motivation for wanting to eliminate commitment to theoretical objects in favor of inferential practices has been a desire to accommodate the sort of open-ended conceptual change which has characterized scientific inquiry from the beginning. Instrumentalists have been much struck by the fact

¹See for instance the Collected Papers of C. S. Peirce, ed. C. Hartshorne and P. Weiss (Harvard, Cambridge, Mass., 1965) Sections 2.589 and 5.369.

²The clearest formulation of this view of the classical instrumentalist position is in E. Nagel's Structure of Science (New York, 1961) pp. 129-152, although of the individuals he associates with it perhaps only Schlick can be said to have held it without reservation. Nagel here treats Dewey as an ordinary instrumentalist (see also Nagel's article in John Dewey: Philosopher of Science and Freedom, ed. Sidney Hook, New York, 1950). It should be clear from the body of this chapter that I think this is a grave misclassification.

that if we take long enough time spans, virtually all of the concepts employed in some earlier theory will have been weeded out, transformed, or replaced during the subsequent evolution of the discipline. Appreciation of this sort of conceptual change has taken the form of a regulative principle to the effect that there are to be no claims taken as "fixed points" settled once and for all by inquiry. This is referred to by Peirce and Popper as "fallibilism", and by Quine as the "revisability in principle" of our beliefs and the concepts they are couched in. If theories are instruments, expressions of complex practices of coping with observable objects, then it is clear how changes in those theories are to be regarded. We cope with the observations in one way for a while, and when a set of practices is suggested which we judge better copes with those observations, we adopt it.³ Theory change is a change of practice, and involves no more ontological difficulty for the instrumentalist than does an historical change of greeting-practices for an anthropologist. The identity of observable objects across theories ensures that it is the same world which the different practices cope with, and the difference in theories is a difference in pragmatic strategies for getting around in that world, predicting, explaining, and so on.

The primary motivation for the realist's denial that the theoretical statements of a scientific view can be rendered as codifications

³Of course talk of "our judgement of better coping" simply christens the crucial sociological-historical problem of offering a detailed account of the considerations which, at different times, lead to decisions to alter the contents of a conceptual tool-box, in whole or in part.

of material inferential practices without affecting the function of theory in scientific inquiry is that the explanatory function of those theories would be lost on the instrumentalist view. The realists argue that theoretical statements do not simply license certain inferential moves concerning observation statements, they also explain the efficacy and account for the legitimacy of those practices. According to the realist, the instrumentalist literally makes science into a myth which one has no reason to subscribe to. It may well be that one can cope well with observations by following certain inferential practices expressed by means of theoretical statements. But why should this be so? For the realist the only conceivable answer is that the theoretical statements refer to actual, causally efficacious objects, just as they purport to, in virtue of which the inferential practices licensed by those statements are sound and useful. The realist sees the instrumentalist as cutting himself off from any possibility of explaining the efficacy of the practices he would reduce theoretical statements to. Appreciation of the need for some explanation of the sort the realists seek takes the form of a regulative principle for theories of inquiry which Quine calls "naturalized epistemology". It is just the requirement that we be able to exhibit scientific inquiries as natural processes susceptible of ordinary empirical investigation and explanation. We must have a view of inquiry which makes it possible at least in principle to tell a story about how a community of inquirers existing in a particular physical and cultural environment could come to have the theories (or practices) that they do, and how, in that environment, those theories or practices help them to get around as well as they do. This account is to be conceived of as an ordinary empirical scientific story about how inquirers work, and not some transcendental, peculiarly philosophical

tale. The realists are confident that no such naturalistic account of the history and current efficacy of our scientific theories and the inferential practices they license can be told without acknowledging the existence of objects referred to by the terms of our theories.

Outlining the classical dispute between realists and instrumentalists provides a background for understanding the current dispute which is its heir. Three principles are crucial for understanding both the classical and the contemporary debates. (i) the principle of fallibilism—that there are no absolutely "fixed points" in inquiry, that any claim or concept may in principle be given up. (ii) The requirement of naturalized epistemology—that it be possible in principle to explain in ordinary empirical terms how inquirers have the theories and practices they have, and how those theories and practices enable them to cope with things in general as well as they do. (iii) The distinction between theory and observation which allows the observational component of a scientific view to be seen as an unproblematic matter of reporting immediately given objects and properties, while the theoretical component is seen as puzzling or problematic. Both parties to the classical debate, and both parties to the contemporary debate accept (i) and (ii). The instrumentalists argue that only an approach to scientific activity which takes practices as ontologically ultimate can satisfy (i), while the realists argue that only an approach which takes objects as ontologically prior to practices can satisfy (ii). The point I want to make here, however, is that in its classical formulation the dispute between realists and instrumentalists depends essentially on (iii). The classical theory/observation distinction simply repeats the Kantian picture of knowledge as the product of a faculty of receptivity (intuition, observation, the passive appropriation of the

"given") and a faculty of spontaneity (understanding, theory, the interpretation of the "given"). Within that framework, the dispute concerns the proper description of the interpretive component, the contribution of the inquirer. The instrumentalist sees that contribution as a matter of manipulative strategies for dealing with the data contributed by observation (receptivity). The realist insists that theorizing, inference, and the interpretation of the dative observations can produce access to the same sorts of objects given immediately in observation. It is important to realize that the original dispute proceeded as a disagreement about the nature of theories in which the objects immediately given in observation were taken as the measure against which "theoretical objects" were to be laid. One school said that theory made available objects like those, and the other school denied this. This dependence on (iii) is important because that principle has been largely discarded in contemporary philosophy of science (as its Kantian paradigm had been discarded a century before). The notion of a theory-neutral, interpretation-free observation language was attacked by Wittgenstein in the Investigations and by Sellars⁴ among others, and had fallen into disrepute in the philosophy of science by the 1960s. In view of the dependence of the original dispute on the theory/observation distinction, we may ask how contemporary instrumentalists and realists formulate a dispute in its absence.

⁴"Empiricism and the Philosophy of Mind" in Vol. 1 of the Minnesota Studies in the Philosophy of Science, ed. Feigl and Scriven (Minneapolis, 1956).

In simplest terms, I think the current situation may be put as follows. In the light of many recent criticisms, philosophers of science have denied that there are sharp differences of kind between objects of observation and objects of theory. Contemporary instrumentalists (I have in mind such people as Quine,⁵ Feyerabend,⁶ and Kuhn⁷) may be thought of as taking this work as modifying our old notion of observation—showing that it is more like theory as classically conceived than we had previously thought. So observation is to join theory as a matter of holistically criticizable practices.⁸ Realists (such as Putnam,⁹ Field,¹⁰ and Boyd¹¹) have taken the demise of (iii) as illuminating our notion of theory, letting us see that theoretical objects are as real, causally efficacious, and independent of our knowledge of them

⁵E.g., Word and Object (Cambridge, Mass., 1960) Chapters 1-3, "Posits and Reality" pp. 233-241 in Ways of Paradox (New York, 1966).

⁶E.g., "Explanation, Reduction, and Empiricism" in Vol. 3 of Minnesota Studies (Minneapolis, 1962); "Consolations for the Specialist" in Criticism and the Growth of Knowledge, eds. Lakatos and Musgrave (Cambridge, 1970) pp. 197-230.

⁷Structure of Scientific Revolutions (Chicago, 1970) and "Logic of Discovery or Psychology of Research?" in Lakatos and Musgrave, op. cit., pp. 1-23.

⁸See Sellars, op. cit., Quine in Chapter 2 of Word and Object, op. cit., and again in Roots of Reference (LaSalle, Illinois, 1970) Parts I and II.

⁹"Explanation and Reference" in Conceptual Change, ed. Pearce and Maynard (Dordrecht, Holland, 1973) pp. 199-221.

¹⁰"Quine and the Correspondence Theory" Phil. Review, April 1974, pp. 200-228; and "Theory Change and the Indeterminacy of Reference" Journal of Philosophy, August 16, 1973, pp. 462-480.

¹¹"Realism, Underdetermination, and a Causal Theory of Evidence" Nous Vol. 7, 1973, pp. 1-12.

as the classical observable objects. They see the change as doing away with an inadequate notion of the objects of observation which made it seem as though there were an invidious contrast between theoretical and observational objects. Since it is clear historically that abandoning (iii) meant abandoning the model of objects in terms of which classical realists had explained theoretical objects, the instrumentalists have a certain polemical advantage in pushing for a change in the notion of observation away from objects and towards practices. The realists counter that classical realism did not make a distinction of kind between objects of theory and objects of observation, and that this is precisely what we have discovered in giving up (iii). Thus Putnam, one of the most influential critics of (iii),¹² has become a prime exponent of the new realism in the philosophy of science. The instrumentalists argue that once we have seen the revisability-in-principle of the claims and concepts of observation as well as of theory, we have no recourse but to treat observation also as a matter of tentative, mutable practices involving no commitment to a static structure of objects existing prior to and independent of all of our inquiries. This last notion they see as rendering impossible any account of the actual course of fallible inquiry. The realists, of course, claim that the reporting practices themselves stand in need of explanation. They see the instrumentalist as cut off from any possibility of explaining, e.g., why we agree as we do about observations, and why those observations ground theoretical inferences. The disputants have simply moved the discussion down to encompass the

¹²"What Theories Are Not" in Logic, Methodology, and Philosophy of Science (Stanford, 1962) eds. Nagel, Suppes, and Tarski.

previously unproblematic realm of observation. The guiding ideas of principles (i) and (ii) remain.

We can see, then, the terms in which the dispute between realists and instrumentalists has survived the demise of (iii). It is not clear, however, that the dispute in this revised, contemporary form is a genuine one. That is, it is not clear that the new positions are incompatible. I want to claim that they are not incompatible, that a genuine distinction between realism and instrumentalism is only possible within the Kantian framework of receptivity and spontaneity represented by (iii). What is needed to show this is a vocabulary neutral between the two camps, within which the explanatory demands of both principles (i) and (ii) can be satisfied, while (iii) is discarded. I believe that this is precisely the virtue of Dewey's theory of inquiry. Accordingly, I will offer in the rest of this paper an interpretation of Dewey's theory of inquiry which exhibits his resolution of the guiding ideas of the realists and instrumentalists.

II

We have seen that the dispute between realists and instrumentalists may be regarded as a dispute about what sort of thing is to be taken as the product or result of inquiry. The realist sees the result as the discovery of objects existing antecedent to the initiation of inquiry. He admits, of course, that for many purposes we may discuss inquiry in terms of the practices of reporting objects, inferring about their existence or relationships and so on, but denies that the "whole story" about inquiry can be told in those terms alone. The instrumentalist sees the result of inquiry as a set of practices produced by that inquiry. He admits that it is convenient for many

purposes to talk about these practices in terms of "objects involved in them" in one way or another, but insists that this is a facon de parler which will generate insoluble philosophical problems (corresponding to the problem of "things-in-themselves" in the older framework) if taken literally. In what follows I will present Dewey's view of the relation of practices and objects, primarily as they are involved in observation. Choosing this focus allows us to consider concrete situations, and deprives us of no important point of understanding, either of Dewey's theory of inquiry, or of its illumination of the realism/instrumentalism dispute. For in the first place, observation and theory are 'continuous' according to Dewey, that is, differing in degree and detail, but not in the basic principles involved in their functioning. In the second place, we have seen that for the contemporary dispute (in the absence of (iii), what goes for the objects and practices involved in observation goes also for those involved in theory. So on both counts the results derived from a careful account of the relation of objects and practices in observation will be easily generalizable to encompass theory as well.

The key-concept in terms of which Dewey develops his theory of inquiry is the notion of a situation. A situation is the non-cognitive, unrepeatable context within which cognition takes place,

The situation as such is not and cannot be stated or made explicit...It is present throughout [inquiry] as that of which whatever is explicitly stated or propounded is a distinction.¹³

¹³Dewey, "Qualitative Thought" reprinted in On Experience, Nature and Freedom, ed. Bernstein, p. 181.

...an individual situation, indivisible and unduplicable. Distinctions and relations are instituted within a situation; they are recurrent and repeatable in different situations.¹⁴

The inquirer is literally a part of the situation within which he inquires. Dewey's terminology is that the inquirer "has" the situation (e.g., as one "has" a certain bodily build). To "know" something, rather than simply "having" the situation is a matter of the repeatables "instituted" within an unrepeatable situation. It is this process which we must investigate to understand the nature of inquiry.

Fortunately, situations are not simply "somethings about which nothing can be said":

...what is the 'situation' in one proposition may appear as a term in another proposition—that is, in connection with some other situation to which thought now refers.¹⁵

What is excluded by the unrepeatable, non-cognitive nature of situations is only that in a given inquiry I should come to know, rather than simply have, the situation which is the context of that very inquiry. I may investigate other inquiries and their contexts, and this is what one must do to produce a theory of inquiry. From this external point of view situations are sub-types of the natural occurrences which Dewey calls variously "histories" or "affairs". These are the basic elements for which our collective name is "nature".

...nature is an affair of affairs.¹⁶

¹⁴Dewey, Logic, the Theory of Inquiry (New York, 1938) p. 68.

¹⁵"Qualitative Thought" op. cit., p. 181.

¹⁶Dewey, Experience and Nature (LaSalle, Illinois, 1925) p. 83.

There are no changes that do not enter into an affair, Res, and there is no affair that is not bounded and thereby marked off as a state or condition...a thing in the idiomatic sense of thing, res, whether a solar-system, a stellar constellation, or an atom, a diversified and more or less loose interconnection of events, falling within boundaries sufficiently definite to be capable of being approximately traced.¹⁷

Situations are a class of affairs which contain sentient organisms. These are the most complicated and interesting affairs in nature, for it is within them that cognition occurs. The model of this sort of affair is the transaction between an organism and its environment in which "integration is more fundamental than is the distinction designated by interaction of organism and environment."¹⁸ The environment here is not just that bit of the physical world which happens to surround the organism. It is that part of the surrounding world with which the organism interacts to live. So from the outside, situations are just congeries of objects "falling within boundaries" determined in some way by the inquirer, and considered as unique, datable occurrences.

But if situations are thus unrepeatable constellations of objects, how are the repeatables crucial to cognitive inquire, as Dewey says, "instituted" within them?

A starting point for further discussion is found in the fact that verbal expressions which designate activities are not marked by the distinction between 'singular' (proper) names and 'common' names which is required in the case of nouns. For what is designated by a verb is a way of changing and/or acting. A way, manner, mode of change and activity is constant or uniform. It persists although the singular deed done or the change taking place is unique.¹⁹

¹⁷Experience and Nature, p. 85.

¹⁸Logic, p. 34.

¹⁹Logic, p. 250.

Practices, modes of activity involving the objects making up the situation, are to be the basis for repeatability in inquiry.

We are brought to the conclusion that it is modes of response which are the ground of generality of logical form, not existential immediate qualities of what is responded to. Qualities which are extremely unlike one another in their immediate (or 'sensible') occurrence are assimilated to one another (or are assigned to the same kind) when the same mode of response is found to yield like consequences, that is, consequences subject to application of one and the same further operation.²⁰

"Similarity" is the product of assimilating different things with respect to their functional value in inference and reasoning.²¹

By considering an example, we can see some of the interactions between objects and practices which Dewey intends to convey by this terminology. Imagine that members of the tribe of K have a practice of pointing and making a certain sound. This practice "institutes" a repeatable object-kind edible plant, (it "yields consequences subject to the application of the same further operation," i.e., eating the indicated plant). Now in the physical surroundings of a K reporting the presence of an edible plant there are various objects to which we would refer in an explanation of the practice of the K. Thus, a perceptual psychologist investigating the Ks might discover that a certain combination of leaf-shape and color serves as the unconscious perceptual cue by means of which the Ks report edible plants. That is, the Ks turn out to point and make the appropriate utterance whenever they are in a position to notice that combination of leaf-shape and color, even when this results in a mistaken report of edibility. A botanist might then

²⁰Logic, p. 252.

²¹Logic, p. 185.

discover that the vast majority of edible plants found in the vicinity of the Ks have the designated leaf-shape and color, while only a rare few inedible plants do. We may imagine further that a physiologist manages to explain how the Ks are set up neurologically to be able to respond differentially to this shape and color. With these investigations complete, it would be possible to explain the possibility of this reporting practice of the Ks, and to account for its being as successful as it is. Suppose now that explanations of this sort are developed for all of the practices in the meager repertoire of some K. The situation of that K at a given time consists of that set of objects which, according to the explanations of his practices, could influence his behavior.²² The "could" in this sentence has two components.

(1) Everything we count in the set of things ("affair") which is to be his situation must be things of a kind to which he has some mode of differential response (e.g., leaf-shapes and colors); (2) Of the things of kinds which the K can respond to differentially given his present repertoire of practices, only those instances are part of the situation which it is causally possible for him to respond to, according to the accounts we have of his practices. An appropriately shaped and colored leaf outside his visual field is not part of his situation.

It is clear that in emphasizing the role of the pre-cognitive situation in inquiry Dewey is acknowledging the claim of principle (ii). Dewey wants to be able to present a "naturalized epistemology", a theory

²²The discussion here assumes that the Ks have a fixed repertoire of practices. We will consider below what happens when that repertoire is altered by inquiry.

of inquiry which will account for the practices of an inquirer in the ordinary empirical way, in terms of a set of objects existing antecedent to any activity of the inquirer, and which causally condition his behavior in explicable ways. One of the terms by means of which Dewey formulates the results of his "inquiry into inquiry" is thus the situation. The situation of any particular inquiry we choose to investigate may well contain objects unknown to the inquirer who "has" the situation. Thus the Ks may know nothing of leaves, having no word to refer to them, and eating only stems. They simply respond causally to objects we who are investigating their practices know about. The Ks need no more know about the kinds of objects which we have discovered to be their perceptual cues than they need know about the kinds of neurons the physiologist invokes to explain their capacity to respond to these cues. And of course this is just the sort of circumstances which realist defenders of (ii) see as essential—that we be able to acknowledge that our cognitive practices are conditioned by objects independent of our knowledge of them, which we may indeed know nothing of.

With this introduction to the notion of a situation, we are prepared to approach Dewey's notion of inquiry. His official definition of inquiry is:

the controlled or directed transformation of an indeterminate situation into one that is so determinate in its constituent distinctions and relations as to convert the elements of the original situation into a unified whole.²³

Dewey later decided that this was ill-put, and his considered view is that

²³Logic, p. 104.

...the original indeterminate situation and the eventual resolved one are precisely initial and terminal phases of one and the same existential situation...²⁴

We will see that the "transformation" which is inquiry according to Dewey is a transformation of practices of reporting, inferring, eating, etc. Dewey's talk of "existentially transforming" situations by inquiring will seem less paradoxical if we recall that the paradigm of a situation from the external point of view is an organism in its environment.

It follows that with every differentiation of structure the environment expands. For a new organ provides a new way of interacting in which things in the world that were previously indifferent enter into life-functions. The environment of an animal that is locomotor differs from that of a sessile plant...²⁵

In our example, coming to engage in a new sort of practice could "transform" the situation of a K simply by making him capable of responding to new sorts of objects. By insisting on the role of pre-cognitive situations in inquiry, Dewey enforces the constraint of practices and changes of practice by causal relations of pre-existing objects which make those practices possible, even though occasionally unfortunate turns of phrase make this level-headed naturalism sound like some paradoxical Fichtean idealism. (Dewey's talk of the 'existential transformation of situations by inquiry' has been interpreted as meaning we can change the facts which make up the world merely by thinking about them.)

What is it for the initial phase of a situation to be "indeterminate", as in the definition of inquiry above?

²⁴Dewey, "Indeterminateness of Situations" Journal of Philosophy, 1942, p. 292.

²⁵Logic, p. 25.

The notion that in actual existence everything is completely determinate has been rendered questionable by the progress of science itself. Even if it had not been, complete determination would not hold of existences as an environment. For Nature is an environment only as it is involved in interaction with an organism, or self, or whatever name be used. Every such interaction is a temporal process, not a momentary cross-sectional occurrence. The situation in which it occurs is indeterminate, therefore, with respect to its issue.²⁶

A situation may be indeterminate as an environment, that is indeterminate in its interaction with an organism, however determinate the objects which make it up at any given time are. A phase of a situation is indeterminate with respect to the as-yet-to-be final phase of that situation. Thus:

If we call it [the initial phase] confused, then it is meant that its outcome cannot be anticipated. It is called obscure when its course of movement permits of final consequences which cannot be clearly made out. It is called conflicting when it tends to evoke discordant responses.²⁷

At a given stage in its temporal development, then, a situation is indeterminate insofar as the inquirer doesn't know what to expect, what practice it would be appropriate to engage in.

A generality is involved in every expectation as a case of a habit that institutes readiness to act (operate) in a specified way.²⁸

That is, one cannot expect a particular, unrepeatable situation, but only a class or kind of situation. And we have seen that for Dewey, classes or kinds are instituted by practices or modes of activity. So the relevant expectation is that the situation will be of a kind in which this practice is appropriate.

²⁶Logic, p. 106.

²⁷Logic, p. 106.

²⁸Logic, p. 251.

An unsettled situation needs clarification because as it stands it gives no lead or cue to the way in which it might be resolved. We do not know, as we say, where to turn; we grope and fumble. We escape from this muddled condition only by turning to other situations and searching them for a cue. What is borrowed provides a new attitude as the means for directing observational operation...These operations make some aspects of the given situation stand out. The attitude, when made explicit, is an idea or conceptual meaning.²⁹

"Turning to other situations" is casting about for a practice, a mode of activity, appropriate in some previous situation which may be appropriate in the present one. Engaging in that practice now would be assimilating the present situation to that past one. A situation is indeterminate insofar as it is uncertain what to do in it, what past situation to assimilate it to.

An inquirer enters any situation with a repertoire of practices differentially elicitable by features of that situation. This repertoire is the legacy of past situations, and it ensures that at every point one has some tendencies to engage in one practice rather than another.

...no situation which is completely indeterminate can possibly be converted into a problem having definite constituents.³⁰

One enters a situation with various practices of making non-inferential reports under specifiable circumstances, of making other claims and inferences, engaging in a variety of non-linguistic behavior. The situation is determinate or resolved insofar as a concordant set of practices is unambiguously elicited by the situation. Inquiry is the process of producing such settled situations by applying high-order

²⁹Logic, p. 185.

³⁰Logic, p. 108.

practices of criticism and refinement of initially conflicting claims made in accord with established practices, whether inferential or non-inferential. These critical practices provide the element of "control" or "direction" in the transformation of situations. Thus a situation in which an edible plant is non-inferentially reported, sampled, and found noxious may be resolved by discarding the initial report as mistaken, by altering the inferential practice which allowed Ks to move from such reports immediately to the sampling of the indicated plant, or in some other fashion. If the first alternative is adopted, the situation will have been transformed from one of the kind in which one made a certain kind of report into one which is not assimilated to other situations according to that practice, since the initial assimilation produced a discordant set of practices. On the other hand, if one resolves the situation by altering the inferential practice linking the reporting practice with the sampling practice, for instance by discovering that some plants which are reported as edible will sample as edible only if boiled, then the resolved situation will remain of the kind determined by its initial assimilation according to the reporting practice.

In this description of the process of inquiry we see clearly Dewey's espousal of the thorough-going fallibilism of principle (i). On this point Dewey is completely at one with Quine. In the example above, inquiry could proceed either by what might be called a change of belief, as in the first alternative, or by what might be called a change of meaning (of the non-inferential report), as in the second alternative. For Dewey, as for Quine, the difference between the two cases is a matter of degree, depending on which practices one is more

willing to alter in the face of a recalcitrant situation.³¹ Any element of an indeterminate situation may be altered or discarded in the course of inquiry in order to produce a resolved situation eliciting only concordant behavior in accordance with the practices of the inquirer.³² For Dewey, as for Peirce, inquiry is a matter of refining one's practices toward an ideal in which no situation would elicit discordant or ambiguous activity in accord with those practices. Every time a problematic situation does arise, a re-assessment of the practices involved is required, an adjustment and a refinement of that set of practices until concord is reached in the concrete situation. And this is just to say in other language what Quine has said with his figure of a web of belief evolving according to constraints of differential tenacity. Although the point is more difficult to appreciate as Dewey presented it, his formulation in terms of practices and situations has certain advantages of clarity with respect to the relations of practices and objects crucial to the contemporary dispute about realism and instrumentalism.

It is important to this picture of inquiry that the inquirer and the habits which determine his practices are part of the situation. This means that altering one's practices is a way of transforming one

³¹A comparison of Dewey's definition of belief at Logic p. 7 and his definition of meaning at Logic pp. 46-47 shows that he does not make a general distinction between change of meaning and change of belief, just as Quine recommends.

³²Dewey puts this point in terms of the "transformation of the data", even observational data. Cf. Logic 491, 160, 124.

situation into another. This point about Dewey's usage is also important for seeing how the general structure of inquiry we have described can be applied to communities of inquirers such as those scientists committed to a certain discipline, as well as to the Robinson Crusoe sort of inquirer Dewey usually uses as an example. The crucial point in the move to socially shared inquiries is that the practices which it is the business of inquiry to transform and refine must be not just repeatable for a single inquirer, but across inquirers as well. I share practices with someone else, indeed, in order to speak a language I must share a great number of them.

...the fact that individuals live in a cultural environment...compels them to assume in their behavior the standpoint of customs, beliefs, institutions, meanings, and projects which are at least relatively general and objective.³³

The essential feature of language is that

...it compels one individual to take the standpoint of other individuals and to see and inquire from a standpoint that is not strictly personal but is common to them as participants or 'parties' in some conjoint undertaking.³⁴

Since the practices according to which the discordant activity elicited by certain features of a problematic situation are communal, shared practices, the situation is objectively unsettled or indeterminate. Problems of this sort can obviously be shared by many inquirers, and a solution attained by one (in terms of a suggestion for reformulating the shared practices in a certain way so as to resolve the difficulty)

³³Logic, p. 45.

³⁴Logic, p. 46.

can be applied by all. It is in this way that we are to think of scientific inquiry. Common sense inquiries and scientific inquiries are alike, in that the same general description as "controlled transformation of problematic situations into resolved ones" applies to both. They are different in that the practices of scientific inquiry are developed, inculcated, and criticized in social institutions unparalleled in the extra-scientific community.

III

In the first part of this chapter I presented a view of the classical and contemporary debates about realism and instrumentalism according to which the classical debate can be understood in terms of the clash between two regulative principles against the background of a sharp theory/observation distinction, and the contemporary debate can be understood in terms of the clash of the same principles once the theory/observation distinction is discarded. I suggested that Dewey provides a vocabulary neutral between the interests of the two contemporary camps, and which can accommodate both leading ideas. Finally, I proposed to infer from this that the contemporary debate is empty, that realism and instrumentalism as mutually incompatible positions cannot survive the demise of the theory/observation distinction. In the second part of this paper we saw how Dewey's notion of a situation involves acknowledging the legitimacy of the realist's principle (ii), that a naturalistic explanation be possible of the existence and relative success of scientific practices. We saw further how Dewey's notion of inquiry as the transformation of situations involves acknowledging the legitimacy of the instrumentalist's principle (i), that there be no claims or concepts that are immune from revision in the course of inquiry.

From the mere fact that Dewey acknowledged both of the guiding principles, however, we ought not to infer that they are compatible. Dewey has been accused both of being incomprehensible and of being inconsistent, and while I trust we have seen that the first allegation is false, it is worth rehearsing the relative contributions of (i) and (ii) to Dewey's scheme to show that at least in this regard he cannot be convicted of inconsistency either.

Consider first the point of view of the realist. His insistence on the "reality" of the objects mentioned in scientific views stems, we saw, from a commitment to (ii) and a belief that it will only be possible to explain the success of present practices of observation, inference, and manipulation in terms of the objects mentioned by science. Dewey subscribed to both (ii) and this further belief about the form of explanations of the success of our notions of evidence etc. In order to understand or explain how some particular inquiry proceeded as it did, we must look first at the situation of the inquirer, the system of environing objects within which the inquiry proceeds. We will seek to explain the feasibility or unfeasibility of the various practices the inquirer engages in in terms of the interactions of those objects (including the inquirer) according to our best theories of how those objects interact. Thus we can explain the success of an observational (non-inferential) practice by describing the inquirer's physiology and linguistic training which, together with some other fairly general matters of fact account for his capacity to report the presence of some environmental feature reliably. Similarly, we can account for his inferential practices. If he takes one reportable feature of his situation as evidence for another, our theory of the interactions of the objects which make up his situation can tell us

what relations among things enable the inquirer to be as successful as he is with this inferential practice. Of course our theory of the environing objects may not be good enough to provide complete accounts of all the practices of some community of inquirers, but this is just to say that our understanding of the workings of people and the world is not total. In principle Dewey allows us the sort of explanation of our practices the realists want.³⁵

By looking thus from the outside at an inquirer and his situation in terms of the best scientific theory we have of them, we can also in principle describe conceptual change in an ordinary empirical way. Looking at two earlier stages in the history of inquiry we can describe the basis and mechanisms of their practices of observation, inference, and manipulation by means of the best understanding we have achieved of the workings of men and the world. We can thus explain why the change from one set of practices to another was a good idea (made inference and observation more reliable or increased manipulatory power) or not such a good idea, depending upon how well, by our best lights, those practices would help them cope with the world as we have discovered it to be. Since from this perspective we describe situations as systems of objects of the kinds mentioned in our

³⁵Putnam, Field, and Boyd (op. cit.) formulate the issue of realism in terms of an explication of reference or denotation envisaged as a prerequisite for a Tarskian truth-explication for scientific discourse. Dewey does not discuss realism in these terms simply because the developments in the philosophy of language which permitted this formulation are too recent. Although I cannot offer an extended discussion of the point here, it should be clear that the motives which make various thinkers concentrate on the linguistic and non-linguistic practices of referring (as Quine does in Word and Object and Roots of Reference), or alternatively on the independent existence of the objects referred to (as in Putnam, Field, and Boyd) are just the ones predicted by our discussion of Dewey's theory of inquiry.

best scientific theories (rather than in terms of what objects the one who has the situation purports to discover), we can describe how two individuals with different cultural backgrounds put in environments similar as far as the objects surrounding them are concerned can "conceptualize" or "carve up" these situations differently (Dewey would say "institute different repeatable object-kinds on the basis of the different practices they engage in"). For their non-inferential reporting practices may require responding to very different features of their situations, and their inferential practices building on the non-inferential ones, may be similarly distinct.³⁶ By describing their practices with respect to the objects which our best theories tell us make up their situations, we provide the framework for an ordinary empirical investigation of inquiry and conceptual change in terms of the physiological and sociological bases of their practices.

What of the instrumentalist's assertion that a commitment to the radical fallibilism of (i) requires us to think of scientific activity as a matter of practices analogous to hunting or building in that they may be altered in order to get along better, without worrying about the "reality" of objects represented in those practices? According to Dewey, the activity of the physiologist and sociologist investigating the basis in relation of objects for the practices of various groups of inquirers is itself to be thought of

³⁶ For an extended discussion of the notion of alternative conceptual schemes which emerges when one considers the possibility of individuals with very different non-inferential reporting practices placed in otherwise similar situations, see K. Walton's "Linguistic Relativity" pp. 1-22 in Pearce and Maynard, op. cit.

as a set of practices which occur within some non-cognitive situation (had but not known) and transformed as inquiry progresses. Inquiry into inquiry shares with all other inquiries the utilization and adaptation of practices forged in previous inquiries, and hence the revisability-in-principle of all these practices and the claims made in accordance with them. This means that the explanations the physiologist and sociologist offer of the grounds of feasibility of the practices of various groups may themselves be made obsolete. For the physiologist, for instance, may alter his practices of reporting and inferring about certain sorts of objects which played essential roles in his earlier accounts. New explanations would have to be sought, couched in terms of objects reported and inferred about in whatever practices supercede the discarded ones. So Dewey acknowledges the instrumentalist's point that the object in terms of which we have explained the practices involved in various inquiries have no privileged ontological status. The practices which involve reference to those kinds of objects may be altered or abandoned in the same way the practices being investigated were altered or abandoned. As the instrumentalist has insisted, the role those objects play in explanation is only to be understood in terms of the various practices of reporting, inferring about, or manipulating those objects. Conceptual change is to be understood as a change of practices.

It should be clear at this point that the realist's claims and the instrumentalist's claims as they appear in Dewey's view of inquiry are completely compatible. Objects and practices occupy correlative functional roles in describing inquiry. Conceptual change is indeed viewed as a change of practice, but neither the practices nor the

change is viewed as inexplicable. On the contrary, any practice or change of practice may in principle be explained by appealing to the objects reported, inferred about, or manipulated in any of the practices which are not then in question. This does not mean that there is any practice which cannot be explained or changed, and which is somehow a basis for all the rest. We simply cannot change or explain all of our practices at once. Whatever sub-class of the set of practices which constitutes scientific activity at a certain time is not being brought into question is available to be used in describing and explaining the nature of the practices or changes of practice which are problematic. And this description and explanation will involve practices of making claims, reporting objects, inferring about their interactions, and so on. There is a certain sort of circularity here, but it is the familiar non-vicious circularity of any self-regulating enterprise, a formal characteristic acknowledged by contemporary philosophy of science as applying to empirical inquiries, capsulized most vividly in Neurath's famous figure of a ship making repairs at sea.³⁷

³⁷The difficulty with the instrumentalists is that, having noticed the problems resulting from an ontology of objects, they sought to put epistemology on a firm footing by substituting an ontology of practices, claiming that objects were derivative entities, ultimately reducible to practices which, as we say, involve them. Peirce succumbed to this temptation in some of his discussions of a "world of signs" (thirds, habits, etc., cf. 5.491, 2.711, 2.713, 5.314). Dewey teaches us that the problem is with the notion of ontology itself. Once we have become naturalistic, accepting a thorough-going fallibilism means eschewing the notion of a categorization of the kinds of things there are which is outside of and prior to any empirical investigation. Objects and practices are mutually dependent functional notions. We cannot account for the changing roles objects play in our conceptual economy without appealing to practices as well, and we cannot individuate practices without reference to objects.

This Deweyan view is so straightforward and naturalistic about the sorts of explanations it envisions of the various practices composing scientific activity at any time that it is worth asking how it differs from the sort of explanation the realists had always envisioned as answering to requirement (ii). I think we can see that the culprit in the case is a vestige of the theory/observation distinction as follows. The problem which faced the realists, as we have argued, is allowing for fallibilism in their account of scientific activity. On the face of it, the explanation which the realist wants to be able to offer of the success of current practices, in terms of the actual existence and causal efficacy of the objects purportedly referred to in the theory will not explain why previous views which we have good empirical reason to believe false worked as well as they did. Nor is it obvious how believing in all those unreal objects enabled us to reach our present privileged position of believing in real ones (i.e., the ones which "really" enable us to engage in the practices we do). Finally, fallibilism dictates that we be willing to accept the possibility of revisions in our current view as radical as those which have occurred in the past. But if this is the case, if our current views will be superceded by wildly different ones, of what value is the "explanation" of our current success insisted upon by the realists, that we are referring to real things which in fact interact in the way our theory says they do?³⁸ It is the moral of our presentation of Dewey's view that the right answer to this last question is

³⁸Hartry Field takes this difficulty as his project in the J. Phil. article cited above.

"Of exactly the same value as any other empirical explanation." According to Dewey's view, each time our scientific view of things changes sufficiently, we will have to rewrite our account of the history of inquiry in terms of the sorts of objects which we have new practices of making claims about. But this fact no more impugns the project of explaining how previous practices worked as well as they did than it impugns any other empirical project which may have to be rethought in view of the results of subsequent inquiry. It is only if one is under the sway of some philosophical notion that one would think that the "real objects" invoked at any stage of inquiry to account for the practices of the past and present must, in order to provide adequate explanations, be somehow "more real" than simply "whatever our best theory of things says there is today, though we may change our minds tomorrow." In part this notion of something more solid and real than the provisional results of contemporary inquiry no doubt stems from the original realist's model of observation as immediate incorrigible acquaintance with the real. The feeling that we ought to explain scientific inquiry in terms which in some sense transcend the ordinary revisable products of current inquiry is not just a matter of taking the classical notion of observation as paradigmatic of knowledge, however. As long as knowledge is thought of on the Kantian model, as the product of the collaboration of a faculty of receptivity and a faculty of spontaneity (and the observation/theory distinction is a straightforward version of this model) it will seem that there is a philosophical task of explaining the relations of these faculties. (Even Quine falls into this view in the very midst

of a recommendation of a Deweyan naturalism about knowledge.³⁹⁾ On this picture, philosophers are to tell us how theory relates to evidence, concept to intuition, in every possible cognition. This project stands outside of and prior to every empirical investigation. Dewey, having wrestled free of the picture generating the classical epistemological project, is able to present inquiry into inquiry as an ordinary empirical matter of describing how groups of inquirers behave in concrete physical and cultural circumstances. To the extent to which the a priori categorial structure of faculties represents a good description of empirical elements of cognition, those elements can be accommodated within Dewey's scheme. Thus Dewey's naturalized account of inquiry can retain a distinction between

³⁹"Epistemology Naturalized" pp. 69-90 in Ontological Relativity (New York, 1969) pp. 82-83.

Epistemology, or something like it, simply falls into place as a chapter of psychology, and hence of natural science. It studies a natural phenomenon, viz., a physical human subject...The relation between the meager input and the torrential output is a relation that we are prompted to study for somewhat the same reasons that always prompted epistemology; namely, in order to see how evidence relates to theory, and in what ways one's theory of nature transcends any available evidence.

It is clear that Quine here wants epistemology to study the relations of a faculty of receptivity (supplying "evidence") and one of spontaneity (supplying "theory"). Only in this framework does a contrast between "meager" and "torrential", or talk of "transcendence" make sense. Dewey would have us look at the relation of, e.g., objects functioning as perceptual cues, physical stimuli, to our cognitive practices. But the stimulations are causal antecedents of the practices (e.g., of making claims), not evidence for them. Epistemology differs from a naturalistic inquiry into inquiry precisely by confusing these two functions, and the Kantian framework of receptivity and spontaneity is the perfect vehicle for the expression of such a confusion.

inferential and non-inferential practices, and between repeatable and non-repeatable elements. These categories are now meant to have only the same force that any empirical classification has, however. They can be discarded when an empirically better idea comes along. Once we give up the receptivity/spontaneity distinction, and with it the project of a philosophical discipline called "epistemology" which is to relate the operations of the two faculties, we lose also the means to formulate a dispute between realism and instrumentalism concerning which faculty is to be given ontological pride of place.

In this chapter we have seen that a pragmatic concern with social practices need not lead one to the denial of objective things and features of the world which characterizes instrumentalism. In the next two chapters we will look at various linguistic practices in some detail, to show how such social practices can involve objective claims and reference to objective things and features. We will use the pragmatic framework we have extracted from Dewey to show how to approach linguistic practices for this purpose without presupposing a distinction between language (an abstract structure, formally empty, which every speaker learns) and theory (what people say, the content they put into the otherwise empty formalism of the language) which would simply repeat in still another form the receptivity/spontaneity distinction I have been excoriating. We will show instead how the notion of an abstract language and of the utterance of claims which are true or false in that language can be abstracted from the concrete social practices which are the use of a language by a population.

Chapter IV: Truth and Assertibility

The question I will try to answer in this chapter is: What role should the study of the truth conditions of sentences play in our attempt to understand the phenomenon of language? The dominant tradition in contemporary philosophy of language, influenced by Frege, Russell, Wittgenstein of the Tractatus, Tarski, and Carnap, takes truth to be the basic concept in terms of which a theory of meaning, and hence a theory of language, is to be developed. According to this view, the essential feature of language is its capacity to represent the way things are. Understanding this function in detail is thus a matter of describing the conditions under which particular sentences truly represent the way things are. Formal semantics, the study of the truth conditions of sentences of various sorts of discourse, is the natural expression of this point of view. On the other hand, there is a pragmatic approach to language shared by Dewey and the later Wittgenstein which attributes little or no importance to the notion of truth. According to this view, language, the medium of cognition, is best thought of as a set of social practices. In order to understand how language works, we must attend to the uses to which its sentences are put and the circumstances in which they are used. Dewey claimed that everything useful which could be said about language with the notion of truth could also be said with a more general and methodologically unproblematic notion of justified utterance or "warranted assertibility". He argued further that the notion of truth should be discarded, since insofar as it cannot be so reconstructed its use in a theory of language

leads to confusions and pointless unanswerable questions.¹ The prime task of this chapter is to show that this conclusion is not implied by his pragmatic approach to language as a complex set of social practices. Although Wittgenstein never explicitly rejected the notion of truth, one of the striking features of his mature thought is the replacement of concern for the facts by concern for what we are entitled to say. He reminds us of the many sorts of use sentences may have which do not involve the expression of propositions (which may be true or false), and the notion of truth plays no role whatsoever in his comments on language-use (it is only mentioned in passing in the Investigations, by way of criticizing his earlier views).² It is not immediately obvious why stressing the kinship of language-use to other social institutions should lead to the de-emphasis of the notion of truth, so let us look a little more closely at the sort of picture which this approach presents us.

I

The use of a particular language by a population consists in the conformity of that population to a great many regularities of behavior. There are regularities involving pronunciation, the form of utterances, the physical or social circumstances of utterance,

¹John Dewey, Logic: The Theory of Inquiry (New York, Holt, 1938); see especially chap. 1, 6, and 25. See also Dewey's response to Russell in P. A. Schilpp, ed. Philosophy of John Dewey (New York, Tudor, 1951).

²Ludwig Wittgenstein, Blue and Brown Books (New York, Barnes and Noble, 1958) pp. 67-68; Philosophical Investigations (New York: Macmillan, 1953) Part I, secs. 22, 23; see also secs. 136, 137 for the only use of truth in the Investigations.

response to utterances, and so on. The object of a theory of that language is the characterization and explanation of those regularities, conformity to which is a criterion of membership in the linguistic community. Since we wish to discover the role a notion of truth ought to play in an account of those regularities, we must focus our interest a bit. Let us assume that the grammatical and phonetic accounts of the language have progressed to the point that we have available a list of sentences of the language, and some way to tell which sentence a given utterance is a token of. Let us further restrict our attention to the regularities which must be observed by speakers. We are thus considering only a part of the full linguistic behavior of which we desire an account. The regularities we seek to explain are then those governing the utterance of various sentences under various circumstances. We want to associate with each sentence of the language the set of conditions under which it is appropriately uttered, or, as Dewey puts it, "warrantedly assertible". We want, in other words, to associate with each sentence of the language some set, call it the assertibility conditions of the sentence such that our theory of the language gives us a uniform way of generating the regularities of usage a speaker must conform to for a given sentence, given only the set of "assertibility conditions" assigned to that sentence. As long as we don't specify anything about the nature of the elements of the sets associated with sentences (for instance that they be patterns of retinal irradiations, or possible worlds, or sets of beliefs of the speaker) this is a perfectly general form for the expression of any account of the regularities a speaker must conform to. Any theory of those regularities can be put into the form of sets of assertibility

conditions associated with sentences of the language.³

Now it is clear that no regularity of appropriate utterance which a speaker learns to conform to and which is reconstructed by a hypothetical theory of assertibility conditions for a language can amount to requiring that all utterances be true. To require that each speaker report the presence of a deer when and only when a deer is present would make infallibility a prerequisite for learning the language. The most that can be codified in the conditions of appropriate utterance of such reports is that one report deer when and only when there are what pass in the community as good reasons for believing a deer to be present (of course, the regularities governing such reports determine for us what the community in question takes to be good reasons for such a belief). It is thus clear that many of the utterances of any population will be, as we should say, assertible but not true, or true but not assertible. But—to return to the question raised in connection with Dewey and Wittgenstein—what is the significance of this observation for understanding the language studied? Presumably some of the utterances are guttural, or nine-worded, or spoken in the sun and not assertible, or are assertible and not guttural, nine-worded, or spoken in the sun. Why should the notion of truth be more important to a theory of this language than these other notions? Of course we can describe the linguistic behavior in terms of truth if we like, but the redundancy characteristics of our truth-predicate assure us that we can involve that notion in any description we like, even where nothing like language

³In the rest of the thesis we will deal with linguistic practices represented in this way by objects (sets of assertibility conditions) which determine the practices for us relative to the background of interpretive practices which are the context of the theory.

is being discussed. We want to know what work is to be done by that notion. Notice that it is of no particular use to point out that, e.g., not all warranted assertions of the presence of a deer result in venison dinners (even when nothing concrete goes wrong with the hunt, such as a badly thrown spear). For this is just to say that even if all of the group involved are on their best behavior, each intending to conform to all of the traditional regularities of linguistic conduct, only asserting things when appropriate and always responding appropriately, and even if everyone succeeds in these intentions, sometimes things go well and sometimes not so well. And this is surely true of their child-rearing habits, planting habits, and propitiations of the gods as well. If no notion of truth is required to explain the occasional and otherwise random failures of a certain generally successful regularity of child-rearing habits, what is it about the linguistic habits which does enforce this notion?

II

Approaching language primarily as a complex social practice or "form of life" thus presents a challenge to anyone who thinks that truth ought to play a central role in our account of language. Two recent authors who have recognized this challenge presented by the two points of view we have outlined, and have made explicit attempts to reconcile the two views are Wilfrid Sellars⁴ and David Lewis.⁵

⁴Science and Metaphysics (New York, Humanities, 1968) chs. 4 and 5.

⁵"Languages and Language" in K. Gunderson, ed. Language, Mind, and Knowledge Vol. VII of the Minnesota Studies (Minnesota, 1975); also his Convention (Cambridge, Mass.: Harvard, 1969) Ch. 5 sec. 4.

I will not draw upon their efforts here, though the resolution I will propose is similar in some respects to each of their proposals. The suggestion I will develop as to the proper role of truth in explaining language-use is that of Michael Dummett:

...the notion of truth is born in the first place out of less specific modes of commendation of an assertoric utterance, from the necessity to distinguish between it and the epistemic notion of justifiability; and this necessity is in turn imposed by the requirements for understanding certain kinds of compound sentences.⁶

"Epistemic justifiability" is a part of what we have called the "assertibility conditions" of an utterance (social or political justifiability is also part of those conditions). What we want to know is indeed how a notion of truth can be "born out of" the less specific mode of commendation which is assertibility. And Dummett's suggestion is that it is sentential compounding that enforces such a distinction.

The primary sort of compound sentence Dummett has in mind seems to be the conditional. Thus he says:

If future-tense sentences could not come within the scope of sentential operators, there would be no place for such a distinction between justification and truth. We should, for example, have no basis for distinguishing between an expression of intention and a statement of intention, that is, between the forms 'I am going to marry Jane' and 'I intend to marry Jane', which differ, not in respect of the circumstances in which their utterance is justified, but solely in their truth-conditions. This distinction has to do solely with the different behavior of the two forms as constituents of more complex sentences, and, particularly, as antecedents of conditionals.⁷

⁶Frege: Philosophy of Language (New York: Harper and Row, 1973) p. 451.

⁷Ibid., p. 450.

Dummett is thus claiming that

(1) I am going to marry Jane. and

(2) I intend to marry Jane.

have the same conditions of justified utterance, or as we would say, the same assertibility conditions. So long as we use each as a complete utterance by itself, the difference in their truth-conditions does not affect the conditions under which they may be used. The notion of truth could be applied, as always, but the difference in truth-conditions is not a difference which makes a difference. Dummett suggests further that within the context of a conditional, the difference becomes significant. I suppose that what he means is that:

(3) If I am going to marry Jane, then I will no longer be a bachelor.

and

(4) If I intend to marry Jane, then I will no longer be a bachelor.

have very different assertibility conditions. The different truth conditions of (1) and (2) result in different assertibility conditions of (3) and (4) in spite of the identity of assertibility conditions of (1) and (2). We may take the suggestion, then, to be that truth is "born out of" assertibility as an auxiliary notion introduced to explain the assertibility conditions of some kinds of compound sentences.⁸

⁸ The suggestion may have stemmed from the observation that although both the pairs (p, I assert that p) and (p, p is true) are redundant in some sense, they are redundant under different conditions. In particular, where the second pair is always redundant, the first is only redundant when its elements are not components of more complex sentences. A related line of thought is presented by P. T. Geach in "Ascriptivism", Philosophical Review LXIX (1960) pp. 221-5.

Unfortunately, Dummett gives us little help in developing this suggestion; the passages that I cited above constitute practically everything he has to say on the matter. He devotes only three paragraphs to this line of thought in the middle of another discussion, and the few sentences he does offer are seriously incomplete. He never tells us what the class of compounding devices which require truth as an auxiliary notion is (for we can surely imagine sentential operators which are "assertibility-functional" in the way in which the material conditional is truth-functional). More importantly, it simply is not the case that "I intend to marry Jane" and "I am going to marry Jane" have the same assertibility conditions. It is true that whenever the first is warranted, so is the second, but the converse is not true. I might believe that I will marry Jane on the basis of a laconic inductive inference, say because I have done everything else Jane told me to do and have no reason to believe this case to be different. Or there might be a prophecy with great religious authority in my linguistic community to the effect that I will marry Jane. In either case I would be warranted in asserting that I will marry Jane, but not necessarily that I intend to do so. Thus while I believe that Dummett has pointed to something which is crucial to the understanding of the nature and function of the notion of truth, his presentation needs to be refined and expanded in order that we may see the importance of his point.

Let us try to be a little systematic about Dummett's suggestion. We need attribute only minimal structure to the languages we discuss, namely that they be generated from a finite basic set of sentences by the application of a finite set of compounding operators.

For the purposes of this exposition we will lose no generality by restricting our attention to one-place sentential operators (such as "not...", "necessarily...", "Waldo believes that..."). Let the basic sentences be $a_1 \dots a_n$ and the operators be $F_1 \dots P_m$. Then the language L is the smallest set (by inclusion) such that:

- 1) $a_1 \dots a_n \in L$
- 2) $\forall i \leq m \forall s (s \in L \rightarrow F_i s \in L)$

To have a theory of what it is that a speaker knows when he knows how to use such a language, we have suggested, is to associate with each sentence s of L a set $A(s)$ of assertibility conditions of s . Within the context of the theory of the use of L , then, the set $A(s)$ will be sufficient to determine the concrete occasions of appropriate use of s . Dummett reminds us, however, that we must not take the speaker-meaning of a sentence to consist solely in the assertibility-conditions of that sentence. We must look also at the contribution the sentence makes to the assertibility conditions of compound sentences of which it is a component, for this is also part of the use of that sentence. This amounts to pointing out that since the languages we are discussing have potentially an infinite number of sentences,⁹ a finitely

⁹In the sense that there is a uniform procedure for generating a further sentence of the language from any finite set of its sentences. I believe that something like this property ought to be used to distinguish logical connectives from others, but a discussion of this point is beyond the scope of the present essay.

specifiable theory of the use of the language must generate the assertibility conditions of complex sentences by some recursion on their complexity. The ideal case would be one in which each compounding operator were assertibility-explicable. That is, for each compounding functor F_i there would be a function which, given only the assertibility conditions of the component sentence, would generate the assertibility conditions of the compound containing it. The requirement that all of the compounding devices of L be assertibility-explicable may be written:

$$(F1) \forall i \leq m \exists g \forall s \in L (A(F_i s) = gA(s))$$

Putting Dummett's argument into this terminology, we can see that he claims that the requirement that a theory of speaker-meaning of a language exhibit its compounding operators as assertibility-explicable is too strong. For he claims that:

$$(F2) \exists i \exists s, s^* \in L [(A(s) = A(s^*)) \& (A(F_i s) \neq A(F_i s^*))]$$

That is, he offers two sentences of English which he claims have identical assertibility conditions, but which generate compounds with non-identical assertibility conditions.¹⁰ This indeed shows:

$$(F3) \exists i \sim \exists g \forall s \in L (A(F_i s) = gA(s))$$

since the desired functions g cannot take identical arguments (sets of assertibility conditions) into different values. Thus Dummett, giving him his premises, would have shown that English is not uniformly

¹⁰Adapting Dummett's example to our language of one-place sentential functors, we take the functor to be "If..., then I will no longer be a bachelor," rather than the ordinary two-place conditional "If..., then...".

assertibility-explicable.¹¹

We will see below that a version of Dummett's argument to this conclusion can be made to stand up. So we may not require that theories of speaker-meaning exhibit languages as assertibility-explicable if we want a theory of English. What is the next strongest constraint we might impose? We could require that there be some auxiliary function B associating sets with sentences in such a way that the language is B -explicable. Such a B would have to satisfy two requirements. First, it would have to generate the assertibility conditions of compounds

$$(F4) \forall i \exists g \forall s \in L (A(F_i s) = g(A(s), B(s)))$$

For each sentential operator there is a function which produces the assertibility conditions of a compound sentence from the assertibility conditions and the B -conditions of the component sentence. B is an auxiliary notion, introduced solely for the purpose of generating assertibility conditions of compounds. In order for a B satisfying (F4) to play the role we want it to play in our theory of speaker-meaning, it must satisfy also:

¹¹There are, of course, languages which are assertibility explicable. Intuitionistic mathematics is formulated in such a way that the assertibility conditions of compounds depends only upon the assertibility conditions of the components. The intuitionistic sentential connectives can be rendered as follows, substituting the expression "is mathematically assertible" (by me) for the canonical "I am in possession of a proof or construction that p "; $p \& q$ is mathematically assertible (m.a.) iff p is m.a. and q is m.a.. $p \vee q$ is m.a. iff p is m.a. or q is m.a.. $p \supset q$ is m.a. if, given that p is m.a., q is m.a. (given a construction of p , one can extend it to a construction of q). $\sim p$ is m.a. iff $p \neq 0$ is m.a.. Dummett discusses the significance of this point for the general dispute between those who view language primarily as a means of representing reality and those who view it as a social practice in the concluding sections of "Truth", Proceedings of the Aristotelian Society LIX (1958/9 pp. 141-162.

(F5) $\forall i \exists f \forall s \in L (B(F_i s) = f(B(s), A(s)))$

That is, B-conditions must themselves be generable by a recursion on the complexity of sentences.

The point of going through this abstract discussion is to try to develop a framework within which Dummett's suggestion can do some work. In the context of the machinery just developed, one thing which we might take Dummett to be saying is that truth is to be defined functionally, as the auxiliary B which explicates a certain class of compounding devices, among which is the conditional. In order to generate in a uniform way the assertibility conditions of compound sentences we need to look not only at the assertibility conditions of the embedded sentences, but also at the truth conditions of those embedded sentences. Put slightly differently, there is a class of compounding devices which are not uniformly assertibility-explicable, and such that they are truth-inducing, in that whatever does explicate them is a truth-concept. This is the line I will pursue. I will try to show that there is a class of compounding devices which ought to be taken to be Truth Inducing Sentential Contexts (TISCs). Whatever notion a particular theory invokes to explicate (in the technical sense given by (F4)) just the sentences generated by these devices qualifies as the truth-concept employed by that theory to account for the use of the language. I will try, in other words, to exhibit truth as an auxiliary notion introduced during the construction of a theory of a language solely in order to account for the assertibility conditions of certain kinds of compound sentences.

III

With this project in mind, let us see what can be made of some examples of the sort Dummett advances:

- (5) I will marry Jane.
- (6) I foresee that I will marry Jane.

"Foresee" is little enough used in our ordinary conversation that we can stipulate that it is to be taken as including just those situations of intention, induction, prophecy, or whatever could justify one in asserting that he will marry Jane.¹² Thus one is justified in asserting (5) under just the same circumstances in which one is justified in asserting (6). Notice that according to the view we are developing, this is a much weaker statement than the (false) claim that (5) and (6) have the same meaning. For if (speaker) meaning is, plausibly, whatever it is that the speaker must be said to "know" when he can use the sentence properly, then that meaning includes on our account not just the assertibility conditions of the sentence, but also the contribution the sentence makes to the assertibility conditions of compound sentences containing it. Identity of assertibility conditions is thus a necessary but not sufficient condition for identity of meaning. Indeed, in any language containing TISCs, truth conditions, as well as assertibility conditions, are part of the meaning of each sentence which can appear embedded in a TISC. Whatever slight damage we must do to the sense of (6) in order to identify its assertibility conditions with those of (5) obviously does not affect the difference between:

- (7) If I will marry Jane, then I will no longer be a bachelor.

¹²David Lewis suggested this use of "foresee".

(8) If I foresee that I will marry Jane, then I will no longer be a bachelor.

(7) is presumably assertible whenever it is conversationally germane, while (8) is only assertible under very special conditions of knowledge concerning how good at foreseeing I am.

According to our formal analysis, then, exhibiting (5)-(8) is sufficient to establish that English is not assertibility - explicable.¹³ So some auxiliary notion must be introduced to generate the assertibility conditions of compound sentences. Dummett's suggestion, as we have reformulated it, is that there is a class of compounding devices in English such that the auxiliary notion we need to introduce to explicate them (in our technical sense) is truth. What set of compounding devices ought we to take as TISCs in English, then? Presumably the conditional is one. Consider also:

(9) Waldo believes that I will marry Jane.

(10) Waldo believes that I foresee that I will marry Jane.

¹³Quine notices, in Roots of Reference (LaSalle, Illinois, 1970) Section 20, the disparity between the logic of truth functions and the logic of assent and dissent (his behavioristic version of assertibility). He suggests, somewhat cryptically, that we consider a "more primitive" (p. 77) three-valued logic of assertion as prior to the development of our two-valued logic of truth. He says of his "verdict functions" (p. 78):

These are more primitive than genuine truth-functional conjunction and alternation, in that they can be learned by induction from observation of verdictive behavior...Truth-values represent a more advanced, theory-laden level of linguistic development...Two-valued logic is a theoretical development that is learned, like other theory, in indirect ways upon which we can only speculate.

The present chapter presents just such a detailed speculation.

(11) It is possible that I will marry Jane.

(12) It is possible that I foresee that I will marry Jane.

(13) It will be the case that I will marry Jane.

(14) It will be the case that I foresee that I will marry Jane.

The pairs (9) (10), (11) (12), and (13) (14) each have elements with differing assertibility conditions, in spite of the identity of the of the assertibility conditions of the embedded sentences. It is clear that for these compounds as well, a difference in the truth-conditions of the embedded component is sufficient to insure a difference of assertibility-conditions for the whole compound, just as for the conditional. In order to use the behavior of compounds like this to define truth conditions (and hence truth), it must also be the case that if the embedded sentences had the same assertibility-conditions and the same truth conditions, the compound sentences would have the same assertibility conditions (this is entailed by (F4)). As far as I can see, there is no direct way to test whether the compounding devices of (7)-(14) would yield co-assertible sentences in the event that we substituted for their embedded elements (5) and (6) a pair of sentences with identical assertibility conditions and identical truth conditions. For there simply are no such sentences. What would be the point of such redundancy in a natural language? And this being the case it is unlikely that we will run across strong intuitions regarding the counterfactual whose antecedent is "If there were two sentences with identical assertibility conditions and identical truth conditions...". I conclude that the requirement of (F4) that identity of assertibility conditions and truth conditions of embedded sentences must be sufficient for identity of assertibility conditions of the compound resulting when the initial sentences are embedded in a TISC offers no barrier to our taking

the constructions of (7)-(14) to be TISCs.

Our general strategy is to use our ideas of the relations of sentences like (5)-(14) in the context of the formal framework elaborated in the light of Dummett's aperçu to try to specify the role which a notion of truth ought to be taken to play in theories of language. The present suggestion is that we take truth as the auxiliary notion introduced (as in (F4)) to explicate a certain class of compounds, the TISCs. This is as yet only the form of a definition, for all we know so far of the class of compounds which would need to be specified is that it contains the devices used in our examples. Assuming that we had some independent characterization of the desired class of compounding devices, then, we could define the truth concept of any particular theory of a language to be that notion which in that theory explicates the hypothesized class. Some theories would be better than others in accounting for language-use, for all of the mundane reasons applicable anywhere else in science—ease of coupling with other theories, power, elegance, intuitive acceptability, exhibition of general principles, and so on. A fortiori, then, some truth-concepts would be better than others, for the language in question. We seek a definition of what it is to be a truth-concept (what role a notion must play in a theory of a language to be functioning as the truth-concept of the language according to that theory) which will allow us to be somewhat precise about the point of truth-theories before the entire details of the "best" theory of any language are known. It is a striking fact that, as Dummett led us to see, we have pretty good intuitions concerning the role of truth in explicating the assertibility conditions of compounds even though we know nothing about such crucial details as what sort of thing

the elements of sets of assertibility conditions are best taken to be, and even though we can exhibit no single concrete example of a sentence for which we can write down assertibility conditions.

How are we to characterize that class of compounding devices which ought to be taken as Truth Inducing Sentential Contexts in our functional definition of the concept of truth? We might in fact get the right class of compounds for English by the straightforward condition that any compound whose assertibility conditions are different depending on whether (5) or (6) is a component is a TISC. This would be an accidental and unilluminating way of characterizing the desired class, however. First of all, it would give us no help in foreign situations where we might want to know about truth (say in mathematics, quantum mechanics, or ancient scientific theories). In general we can see that we cannot rely on the asymmetries provided by (5) and (6) to give a general definition of "TISC". For we can imagine extending English by adding a one-place sentential compound F' such that for any sentence p of English, $F'p$ is assertible just in case it has an odd number of words. Since (5) and (6) will never both have an odd number of words, F' would discriminate between them in the required fashion. Yet nothing about truth is intuitively required to explicate F' , so it should not be taken to be a TISC. So in generalizing from the examples we considered we must find a class of pairs of sentences to play the role which (5) and (6) played with respect to the compounds which is sufficiently motivated by its connection with ordinary notions of truth that it will not violate our intuitions concerning manufactured connectives.

The characteristic of (5) and (6) on which I want to focus in defining TISC-hood is, roughly, that there is a state of the speaker

which (5) expresses and which (6) states to be expressed. The regularities of utterance which constitute a shared language can license or require the attribution to the utterer of some state, simply in virtue of his utterance. Thus the utterance of (5) licenses the attribution of a certain state of foresight concerning the future, that stated in (6). Another example is that the regularities governing the use of the term "assert" are such that in almost any situation in which an individual utters a token of p, he is in the state of asserting that-p. A less trivial example is the case of belief. Our notions of "belief" and of "normal language use" interact in such a way that in a situation of normal language-use, an utterance of p is associated with the utterer's state of believing that-p. Other regularities govern our talk as well, however, so there are also regularities to the effect that in some cases such as jokes, drama, or politics, the belief-states and the utterance may be related in some much more complicated way. Where the regularities are close to invariable association of state with utterance, the utterance which attributes the state to oneself and the original utterance will have nearly identical assertibility conditions. Where there are divergences, as with the attribution of belief-states, assertibility conditions will exhibit similar divergence. I want to define the notion of an Expression-Statement Pair (ESP) in this way, then. We are given an utterance made in a certain situation. Sometimes there will be in the language in question a state-attributing term such that according to the regularities governing its application, the production of the original utterance in a particular situation is sufficient for the attribution of that state to the utterer. In such a case the pair

consisting of the original utterance and the statement which attributes the appropriate state to the utterer will be an expression-statement pair.

This notion is intended to work as follows. A TISC is to be defined as any sentential compounding device F such that if the ordered pair (p, p') is an ESP, then $A(Fp) \neq A(Fp')$. That is, TISCs are those compounding devices such that it is a sufficient condition for a compound to discriminate in its assertibility conditions between elements of a pair of sentences that that pair be an ESP, let the assertibility conditions, word-length, sonority, or what have you of the components fall where it may.¹⁴ Elements of an ESP need not have the same assertibility conditions, but if they do they are discriminated by TISCs anyway, and the same thing holds for any other property of the elements of ESPs which is not essentially connected to their ESP-hood.

Assigning this role to the notion of an ESP as we have defined it involves making a number of claims about ESPs. First, for the definition to be well-formed it must be the case that the firm cases of TISCs in English exhibited in our examples (7)-(14) in fact discriminate all of the ESPs we can identify in English (and recall that it is sufficient for a pair to be an ESP that there is some set of circumstances under which the defining regularities of the language license the attribution of a state to a person in virtue of his utterance of a particular sentence in those circumstances). Second, all the ESPs we

¹⁴In generalizing to multiplace functors, we will identify ESPs by requiring that there be ways of filling all but one of the places of the functor so that when the elements of the pair are sequentially substituted into the remaining place, different assertibility conditions result.

can identify in English must be such that their members intuitively have different sets of truth conditions.¹⁵ By the nature of the case I cannot survey all the TISCs and ESPs of English to demonstrate that these conditions are met without serious counterexample.¹⁶ By way of persuasion, however, we may consider a type of ESP very different from those we have attended to thus far. Consider:

(15) Is Waldo going to the library?

(16) I am asking whether Waldo is going to the library.

(17) Waldo, open the door!

(18) I am commanding Waldo to open the door.

The pairs (15) (16) and (17) (18) are ESPs, for the second element of each pair attributes to the speaker the state of asking or commanding which is expressed by the first element of the pair. The first element does not yield a grammatical sentence when embedded in our paradigm TISCs, but the second does. Thus:

¹⁵It is this requirement which motivates me to define the TISC-generating pairs of sentences so as to exclude pairs such as (It is raining, It is raining now). These sentences have identical (or nearly so) assertibility conditions, but behave very differently embedded in contexts such as "It will be the case that...". According to the principles I have been urging, this show that the two component sentences have different meanings (if only slightly). It is not clear, however that the difference of meaning resulting from the explicit token-reflexive referring to the occasion of utterance is best treated as a difference in truth conditions. Thus it is better not to use such pairs in characterizing TISCs.

¹⁶I believe, though it is no part of my present project to argue for the claim, that every sentential compounding device of English is a TISC. This would have the important consequence that the only auxiliary device needed to explicate sentential compounding is truth. That this is not the only coherent possibility is clear from note 11.

- (19) Wanda believes is Waldo going to the library.
- (20) Wanda believes I am asking whether Waldo is going to the library.
- (21) If Waldo, open the door, then the door will be opened.
- (22) If I am commanding Waldo to open the door, then the door will be opened.

The first elements of these pairs have, roughly, no assertibility conditions at all, while the second elements do. The TISCs thus discriminate the ESPs appropriately. But notice further that we can explain the deviance of (19) and (21) intuitively by the fact that (15) and (17) have no truth conditions, where (16) and (18) do. The difference in assertibility conditions of compounds is thus plausibly attributed to the difference in truth conditions just as our theory says it ought (even though the situation is very different from those we began with). And this would still be true if, counterfactually, (15) and (16) or (17) and (18) had identical assertibility conditions. According to the view I am urging, of course, the anomalous behavior of (15) and (16) as components of TISCs is the reason they have no truth conditions.

I think we can see that the difference between elements of ESPs is in some broad sense a semantic difference. Consider the ESPs: (p, I assert that p), (p, I believe that p), (p, He believes that p). In each case the second element of the ESP is a comment on how the language is working to express the content that it does in the utterance which is the first element. These comments are at least metalinguistic. That they are specifically semantic is argued from a perhaps peculiar quarter as follows. Representationalists like Russell, arguing for the necessity of a language-transcendent notion of truth, have claimed as against truth-as-assertibility theorists like Dewey that the very essence of the notion

of truth lies in the contrast it enables and enforces between how things are and how they are thought to be, believed to be, or desired to be by any person or group of people.¹⁷ If you have this distinction, you have a notion of truth; fail to make this distinction and you are simply talking about something else. Although the primary orientation of this chapter has been squarely within the language-as-social-practice tradition of those who give pride of place to assertibility, we have seized on just that distinction which according to the representationalists generates the notion of truth. For on our account it is precisely the explication of compounds which systematically discriminate between the content of an utterance (how it says things are) and any state of the utterer (belief, desire, or what have you) which may be associated with it which requires the introduction of truth as an auxiliary notion. A leading idea of an opposing school of thought is thus incorporated in our assertibility-generated pragmatic treatment of truth.

IV

The picture I have drawn of the role of the notion of truth in a theory of language can be summarized as follows. In languages with sentential compounding devices, the speaker-meaning of a sentence (what the speaker must "know" in order to be able to use the sentence) must be taken to consist not just of the assertibility conditions of that sentence, but also of the contribution that a sentence makes to the assertibility conditions of sentences of which it is a component. This

¹⁷Indeed, thinking about this contrast is supposed to lead one to think of language as re-presenting the way things objectively are. See Russell in the Schilpp volume (cited above) pp. 145-154. See also Chapter 23 "Warranted Assertibility" of An Inquiry Into Meaning and Truth (Norton, Baltimore, 1962).

contribution provides a sense in which a sentence has a content distinct from the set of circumstances under which it may appropriately be asserted. We define a class of compounding devices of the language which are to be Truth Inducing Sentential Contexts, by means of their treatment of an independently specifiable set of Expression-Statement Pairs. The TISCs require an auxiliary notion to be introduced in order to generate in a uniform way the assertibility conditions of compounds formed by them from the component sentences embedded in the compounds. The auxiliary notion which explicates these compounds is the truth-concept of the language, according to the particular theory of assertibility conditions and auxiliaries of which it is a part. Such a truth-concept assigns to each sentence of the language which can appear in the appropriate sort of compound a set, called the "truth conditions" of that sentence. The theory then provides, for each sort of compound, a uniform way of generating the assertibility conditions of the compound from the assertibility conditions of its components. The contemporary discipline of semantics takes only part of this generation as its project, namely the construction of truth-conditions for all the sentences of a given language, and the generation of the truth conditions of compound sentences from the truth conditions of their embedded components. Since in natural languages multiple nesting of sentential operators is common, the primary project (from our point of view) of generating assertibility conditions will require for multiply compound sentences that the truth conditions of embedded compounds be generated as in (F5) above. Semantics as such never considers the final step of generating assertibility conditions given the truth conditions of components. For some sorts of compounding device—the conditional, negation, tensing, modal operators, and

some others—it happens to be possible to generate the truth conditions of their components in relatively simple ways, as formal semantics has shown us. For other sorts of compounds, notoriously for analogues of "Waldo believes that..." it appears that not only the truth conditions of components are needed, but also the assertibility conditions. If so, then the theory of truth conditions will not be able to insulate itself as a self-contained part of the project of giving assertibility conditions in treating these compounds.¹⁸ Be this as it may, we see from our account both how semantics can be a semi-autonomous discipline, abstracting from the more immediate concern with assertibility, and also how that semi-autonomous discipline serves a useful purpose in our general account of how languages work.

I have offered a detailed functional definition of the term "truth concept". To be a truth concept is just to play the role I have described in some theory of a language. Of course most languages have truth-predicates in them already, before any self-conscious linguistic theorist appears on the scene. Our notion of truth has been

¹⁸It is interesting to note that Quine's suggestion that we restrict ourselves to extensional constructions in order to make truth conditions behave is undercut by this approach. According to our definition, the second element of an ESP attributes a state to a speaker on the basis of his utterance and its circumstances. We should not be surprised, therefore, that all the ESPs we have identified above involve non-extensional constructions. For the state-attributing construction of the second element of an ESP to be extensional would be for the attribution of the state to depend only on the truth-value of the utterance which is the first element. The only states like that are "speaking truly", "speaking falsely", and their trivial variants (like "speaking truly and not being a neutrino"). And we may not simply restrict ourselves to these ESPs in defining TISCs on pain of circularity. It follows that the existence of nonextensional constructions in a language is a necessary condition for the employment of truth conditions as auxiliaries in an account of the use of the language.

tailored so as to conform to the notions we have about the English truth-predicate in the main. A certain tension remains between the demands of a notion of truth which plays the theoretical role we have offered and our naive "ordinary language" view, even if only because the theoretical notion is much more precise and detailed. But this ought not to disturb us—had there not been some tension between the requirements of theory and the data of intuition, there never would have been a philosophical problem of truth in the first place. We may think of our ordinary use of the truth-predicate as constituting an informal theory of some aspects of the use of sentences as components of others, recognizing that for various detailed purposes a more sophisticated theory is required.

So far in this chapter we have developed a sophisticated account of the function of truth conditions in our accounts of the workings of language. The applicability of this notion has nothing to do with whether or not there is a truth predicate in the language being studied. In conclusion I would like to say something about the notion of truth which results from this way of looking at things. According to the usual understanding, the notion of truth is generated initially by the consideration of sentences in their categorical uses. According to this almost universally held view, a sentence like "Snow is white," is either true or not true as a free-standing utterance. The employment of the notion of truth (in the form of truth conditions) in compounds of which the sentence is a part, e.g., conditionals, is a secondary, derivative matter. On the view which I have been urging in this chapter, however, it is the hypothetical use of sentences to which the notion of truth is primarily applicable, and its application to

sentences in their categorical use is derivative. For according to our account, a free-standing utterance is truth-critizable only in virtue of the possibility of taking it as the antecedent of a conditional. Normally, all of the grounds which one might have for criticizing an utterance are to be characterized within our theory of such critical practices as actual or imagined infractions of the assertibility conditions of the sentence. Sometimes, however, an utterance which satisfies the assertibility condition of the sentence which is uttered may be appropriately criticized on the grounds that it does not satisfy the truth conditions of the sentence uttered. This sort of criticism is appropriate just in case the original utterance is, explicitly or implicitly, the antecedent of some conditional. Thus truth is primarily a predicate applicable to sentences used hypothetically, as antecedents of conditionals and similar constructions. That notion is derivatively applicable to sentences in their categorical use as free-standing utterances, insofar as those utterances are implicitly hypothetical, though no conditional is explicitly uttered.

The sort of implicit conditionalization I have in mind occurs primarily in the social context of argument. For notice that one cannot criticize one's own utterances on the basis that they are assertible but not true, and therefore not adequate for the detachment and assertion of the conclusion of some conditional of which the utterance in question is the antecedent. For suppose I receive in some way new information, which is such that it is no longer appropriate for me to utter a certain sentence. The most I can do is to take back my utterance, showing in effect that while it was assertible before, it is not so now. In a dialogue, however, my interlocutor, who may have different information than

I do, can characterize the situation in which the sentence is assertible for me but not for him as one in which, as he believes, what I say is assertible (for he does not deny that I am properly engaging in the various practices I have been taught) but not true. Of course if I possessed the same information he does, my utterance would not even be assertible. Truth-criticism, above and beyond assertibility-criticism, is appropriate in a social situation of differing information, and signifies that the criticizer is not willing to detach from conditionals he assents to, and which have the criticized utterance-type as antecedents. Thus, to criticize someone's utterance as false, while not impugning its assertibility, is to claim that it is misleading in a special way.¹⁹ It is all right to assert such a sentence, one does not transgress

¹⁹We see here the seeds of the notion of truth traditional among pragmatists, from Peirce to Dewey, as utterance according to a practice which could not be appraised as misleading in this way by any interlocutor, whatever his circumstance. It is this notion which became popularized as the view that "truth is what works". From our point of view this is like trying to use the expression "honesty is the best policy" to derive an implicit definition of honesty. For we have seen from Dewey's discussions, in Chapter III, that we should approach the objects which condition social practices in terms of an empirical effort to explain the possibility of those practices. The objects invoked are thus those of the theoretician, not necessarily the ones invoked by those who actually engage in the practice under study. These objects and objective features are often not available to the community which offers truth-appraisals of its own performances. If our main concern were the interpretation of the mistakes of previous pragmatists, rather than the development of their good ideas, it would be worthwhile to pursue further the connection between the truth appraisals of a community using the truth predicate of their language and the truth conditions invoked by a theorist interested in accounting for the linguistic practices of the community. It is enough for our present purposes, however, to see that the pragmatists jumped too quickly from fact that truth appraisals within a community can, in the way sketched in the text, be accounted for in terms of the assertibility of the consequents of conditionals whose antecedents are the appraised sentences, to the conclusion that the role truth plays for the theorist interested in how the linguistic practices of that community work can be similarly accounted for solely in terms of assertibility.

against the shared linguistic practices by doing so, but by admitting this much the other members of the linguistic community are not committing themselves to asserting the conclusions of conditionals with that sentence as an antecedent, even when they are willing to assert the conditionals themselves. Thus the notion of truth is appropriately applied to free-standing, categorical utterances just insofar as they are involved in a social discourse in which conclusions may be based upon them according to inferential practices codified in conditionals with those sentences as antecedents. This social context of argument is not important for formal semantics, and we saw that everything which we need to consider in order to account for the role of truth (in the form of truth conditions) in that discipline can be provided without examining that context. In order to see how the formal notion of truth invoked by the technical linguistic discipline we have considered is connected to the ordinary use of the truth predicate within the language, however, one must consider the relations of the hypothetical use of a sentence as the antecedent of a conditional to the apparently categorical use of that sentence which is implicitly conditionalized by its utterance in the social context of argument, with inferential schemes parallel to conditionals. In that context we can see how appraisals of truth in addition to appraisals of assertibility can play a role connected to, but not identical with the role we have identified as appropriate to the notion of truth conditions in theorizing about the language.

In the next chapter we will extend the method of this chapter to discuss the denotations of sub-sentential linguistic expressions, by considering the explanatory project of a theory of linguistic practices in more detail.

Chapter V: The Function of Grammar

In the last chapter we saw how the notion of truth and the truth conditions of sentences could arise in a pragmatic investigation into the social practices which are the use of a language by a population. That is, we saw how an account of social practices (which are whatever the linguistic community takes them to be) can require us to consider the sentences uttered in those practices as making claims which are objectively true or false, regardless of what the community takes them to be. In this chapter we will consider the project of accounting for linguistic practices in more detail, in order to show how various more complicated notions of linguistic structure can arise. We will be particularly concerned to respond to the skeptical challenges Quine has raised from the point of view of social practices of language use against the notions of syntactic deep-structure, meaning, and denotation or reference. In Section I, we will reformulate those objections, to show their common pragmatic origin. In Section II, we will apply the lesson learned from Dewey in Chapter III, and look at a specific sort of empirical inquiry into the functioning of linguistic practices, which requires us to consider the objects which make those practices possible. In the rest of the paper we will see how that sort of inquiry requires that a sophisticated grammar be attributed to the language being investigated, and in particular requires notions of syntactic deep-structure, meaning, and denotation or reference. We thus extend the method of the previous chapter to consider sub-sentential linguistic components, and see what it is about the practices associated with them in virtue of which it is appropriate to associate

them with objective things or features.¹

The use of a language by a population consists in an array of complex social practices which that population engages in. We may divide these regularities of conduct into two basic kinds: Regularities concerning what noises are made, and regularities concerning the occasions on which they are made. Insofar as a set of regularities of these two sorts expresses the use of language, the regularities concerning what sounds are made can be represented by a set of phonetic descriptions, each of which determines a class of physical performances which are in fact accepted by the community as instances of that utterance-type. The phonetic descriptions are just supposed to be some rule which tells us what counts as an instance of what utterance-type. To know how to use one of the utterance-types in this set is to be able to conform to various complicated regularities concerning the occasions on which tokens of it may be uttered. Without attempting to say anything more specific about these regularities, we can express what a speaker, as we say, "knows", when he knows how to use some utterance-type by associating with it a set of assertibility conditions which determine

¹The project of this chapter is thus in many ways similar to that which Paul Ziff undertakes in his Semantic Analysis (Cornell U. Press, Ithaca, N.Y., 1960). He is also concerned to relate the regularities of linguistic practice which are the use of a language by a population to structural sub-parts of linguistic expressions. I have not attempted to exploit this similarity of project in elucidating the views of this chapter because of a crucial difference in Ziff's starting point. For he permits himself to introduce the notion of truth conditions without any detailed argument showing why he is entitled to that notion, on the basis of the sorts of linguistic regularities we can actually observe. He takes for granted the Frege-Carnap view that truth conditions are important for understanding the meaning of sentences, and does not inquire as to why this is. His analysis is thus, in a sense, not as radical as the one I am trying to develop.

on what concrete occasions the linguistic community deems it appropriate to utter a token of that type. As in the previous chapter, it is not important for our purpose here that we be able to specify any details of what the elements of such a representation of a principle determining the practice of utterance would be. There is an idealization involved in appealing to the notion of assertibility conditions, since we can't specify any, but neither do we know how to specify phonetic descriptions yet. Still, both notions are tolerably clear. Together they are to codify the regularities of conduct conformity to which is the criterion of membership in the linguistic community.

In terms of these notions, we can represent a language by a set of ordered pairs called sentences. The first element of each ordered pair is a phonetic description and the second element is a set of assertibility conditions. A list of this form of the sentences of a language determines, relative to some background theory, the practices one must engage in to be speaking that language. A linguist who has such a representation of the sentences of some alien language ought to be able, subject to various practical constraints, to duplicate the competence of the natives, that is, to converse with them as they converse with each other.²

It is natural to take the in-principle capacity to converse with the native speakers provided by a list of the sentences of the language

²As in the previous chapter, we will be here concerned exclusively with speaker-competence and its reconstruction. This does not mean that we can totally ignore non-verbal responses, and the part they play in acquiring the use of a language, however. I have no detailed account of such responses in mind, but perhaps we may think of non-verbal responses as a special class of sentences (e.g., self-addressed imperatives) whose utterances are appropriately described by assertibility conditions (or performance conditions) and by physical descriptions of motions, rather than phonetic descriptions of sounds.

in this form as the criterion of adequacy appropriate to theories of the use of a language. That is, a theory of the use of a language just is some mechanism for generating a list of ordered pairs of phonetic descriptions and assertibility conditions which codifies the social practices which are speaking the language. Thus Quine defines the grammarian's task as:

...demarkating, recursively and in formal terms, the infinite totality of the well-formed strings of phonemes of the chosen language.³

Defining "extensionally equivalent" grammars as those which generate the same set of well-formed strings of phonemes, he continues:

If...we hold every grammar to be as authentic as every extensionally equivalent grammar, and to be preferred only for its simplicity and convenience, then deep structure loses its objectivity, but need not lose its place. Deep structure and the transformations to and from it, might still qualify as auxiliaries to the simplest and most convenient system we know for demarcating the class of well-formed strings.

The line of thought here is clear. Quine takes grammar, or as I would use the terms, syntax, to be part of a larger theory, its functional role determined by the aims of that larger theory. Speaking only about the first element of the ordered pairs which we have taken to specify the language, Quine takes the task of a theory of syntax to be the generation of the infinite set of phonetic descriptions. He then argues that if the aim of a theory of syntax is determined by this target description of speaker competence, then many different axiomatizations will generate the same set of phonetic descriptions, and hence be descriptively adequate. Insofar as a theory of syntax is a part of the

³"Methodological Reflections on Current Linguistic Theory", p. 445 in Davidson and Harman (editors) Semantics of Natural Language, D. Reidel Co., Dordrecht-Holland, 1972.

project of generating the right set of sentences, then, we may choose between alternative theories only on the basis of convenience of their representation. This skepticism about the objectivity of grammar is a result of a certain view of the role of the theory of syntax in the larger project of characterizing the use of a language.

Of course the same form of argument can be applied to the assertibility conditions as to the phonetic descriptions. Consider translation. A translation is a mapping from the sentences of one language to the sentences of another which transforms the capacity to converse in one language into the capacity to converse in another. Representing the conversational capacities as ordered pairs of phonetic descriptions and assertibility conditions, we will see a good translation as associating with each phonetic description in one language a phonetic description in the other which is paired with the same assertibility conditions. Given such a mapping, one can converse in the foreign language as follows. One considers what phoneme string one would utter according to the regularities of the home language, sees what foreign phoneme-string is associated with it by the translation-function, and utters that. When the foreigner responds, one sees what sentence of the home language is offered by the translation function as having the same assertibility conditions as his utterance, and responds as if he had uttered that sentence of the home language. In this way a translation function would enable one to converse in a foreign language. If the goals of translation are regarded as determined in this way by pairs of phonetic descriptions and assertibility conditions, then convenience of representation and arbitrary choice will enter here as much as on the syntactic side. For if the assertibility conditions of "gavagai" match those of

the English sentence "There's a rabbit", they match also those of the (made-up) sentence "There's an undetached rabbit-part", so neither translation will be more adequate than the other for the purposes we are imagining, though one might be more convenient. Skepticism about the determinacy of the sort of meaning which translation preserves is thus engendered by the view which sees this sort of meaning as a part of a certain kind of theory of the use of a language, namely one which seeks only to describe the practices which govern the use of the sentences.

If we see denotation and semantic structure as auxiliaries in the project of generating a theory of the use of a language which can be expressed as a set of ordered pairs of phonetic descriptions and assertibility conditions we find the same sort of indifference between alternative theories which resulted from viewing syntactic structure and translation-meaning in this way. Denotational relations are presumably correlations between phonetically distinguishable elements (such as 'rabbit' or 'gavagai') which appear in the phonetic descriptions of many sentences, and some element which regularly appears in the assertibility conditions of those sentences. A theory of denotation would consist of a relatively small list of such correlations, together with a set of structural rules which would permit the derivation of the full set of ordered pairs which are the sentences of the language, by combination of the various elements. But the situation with respect to the generation of the full set of ordered pairs in this fashion is the same as that of the syntactic generation of the phonetic element only. If one such axiomatization or recipe is possible, many are, and Quine has offered us several more or less perverse

ways of producing alternative reference schemes which will generate the same set of sentences, and hence determine the same conversational competence. We could, for instance, take the occurrence of 'gavagai' in the expression "gatgavagai" to be like the occurrence of 'cat' in "cattle". The sentence "gatgavagai" would thus be added to the list of axioms, rather than generated as a compound utterance, resulting in just the same ultimate set of sentences. Or we could take all the sentences which don't have other sentences as phonetic parts as basic sentences, and generate the rest with a few rules for sentential coordination, conjunction, subordination, and so on, (as we did in Chapter IV) bypassing sub-sentential structure entirely. And there are more complicated ways of producing an alternative scheme for generating a single set of ordered pairs as well. As Wallace has suggested,⁴ given one denotational scheme, we can duplicate its results by replacing every object or spatio-temporal region which appears in some set of assertibility conditions by the object or region which is ten feet to its left, and replace every property of objects or regions by the property of having something with the original property ten feet to its right. We would be said to be referring to the regions ten feet to the left of rabbits, and saying of them that they were, e.g., prolific or happy. More generally, given any scheme, we can substitute as the denotation of any phonetically specified expression anything systematically related to it, for instance rabbit-parts or rabbit-stages for rabbits,

⁴ John Wallace "Only in the Context of a Sentence Does a Word Have Meaning", unpublished typescript.

and adjust the rest of the scheme to get the same assertibility conditions.⁵

The point is that we may think of a language as being an abstract object consisting of a set of social practices. A population can be in the special relation to that abstract object of speaking or using the language just in case they conform to those regularities of practice. If one now considers the various theoretical notions which have been thought to be crucial to the specification of a language by those who are not primarily concerned with social practices—the syntactic and semantic structure of its sentences, their meaning and the denotations of expressions occurring in them—one finds these notions playing drastically reduced roles. The criteria of adequacy for the performance of these auxiliary functions enforced by this view of language render choices between traditionally important alternatives concerning what we say about them (e.g., what kind of object "rabbit" refers to, temporally extended or instantaneous) at best matters of convenience of theoretical formulation, and at worst matters of arbitrary or aesthetic fancy.⁶

⁵These different reference schemes may be thought of as specifications of a single set of assertibility conditions in a number of different languages. Quine may then be taken as pointing out that as far as the project of generating phonetic descriptions and assertibility conditions is concerned, the choice of which language to use in our theory is a matter of convention, determined only by those considerations of ease of handling and apparent simplicity which we use to pick between other equally serviceable conventions.

⁶Notice here that the issue is not mentalism vs. behaviorism about semantics, linguistic structure, etc. Even if we allow ideas into the assertibility conditions the problem of multiple correlations will still occur. Whether the correlation we find is with physical rabbits or ideas uncritically taken as of rabbits, our attribution of structure to sentences on this understanding is a matter of the convenient generation of a set of ordered pairs which could be generated by other structures and correlations. As Wittgenstein argued in the Investigations, we may "divide through" by ideas in their function as guiding linguistic behavior. They are no help at all.

II

We have seen that one can end up with a conventionalist skepticism about the notions of deep structure, meaning, and reference or denotation by taking languages as consisting of social practices, which may be captured in a theory of phonetic descriptions and assertibility conditions. It is our purpose in this chapter to show how to circumvent that conventionalism while retaining the pragmatic point of view which renders languages as comprised of social practices. So let us look at conventionalism briefly. Hilary Putnam has given us a particularly clear statement of one view of conventionalism. I think he is wrong about it, but his statement is a good starting-place.⁷

Conventionalism is at bottom a form of essentialism... What the conventionalist does is to claim that certain constraints exhaust the meaning of the notion he is analyzing. He claims to intuit not just that the constraints in question...are part of the meaning...but that any further condition that one might suggest would definitely not be part of the meaning of the notion in question...

We see now why conventionalism is not usually recognized as essentialism. It is not usually recognized as essentialism because it is negative essentialism. Essentialism is usually criticised because the essentialist intuits too much. He claims to see that too many properties are part of a concept. The negative essentialist, the conventionalist, intuits not that a great many strong properties are part of a concept, but that only a few could be a part of a concept.

Identifying various arguments of Quine as conventionalist in this sense, Putnam rejects those arguments as based on a notion of meaning which

⁷"The Refutation of Conventionalism" in Mind, Language, and Reality, Philosophical Papers, Vol. II by H. Putnam (Cambridge U. Press, Cambridge, 1975) pp. 162-163. Second quote, p. 164

Quine himself had discredited. But we must ask whether the arguments we have just considered have the form Putnam claims for them. As we reconstructed Quine's arguments concerning deep structure, meaning, and reference, no claim was made that, for instance, a certain set of constraints exhausted the meaning of the term 'translation', so that any further constraints would amount to conventional stipulations. All that is required for the conventionalist conclusion is that the point of having a translation function, from the perspective of a larger project, is exhausted by a certain function. The notion of translation has a role in a theory of the use of a language, and Quine's arguments as we have reconstructed them seek to show that, for a particular specification of that project, the role of a translation function (or of syntactic deep structure, or of denotational scheme) can be played equally well by a number of different notions. The particular project we considered as the background for the conventionalist arguments is the project of producing a list of pairs of phonetic descriptions and assertibility conditions which determine for us the social practices conformity to which is a criterion of membership in the linguistic community. Relative to that project, we can show that one translation scheme which meets certain minimal conditions will serve as well as any other (save that one may be simpler or more convenient to use), and similarly for assignments of syntactic and semantic structure. Putnam is wrong in thinking that he can refute any and all conventionalist arguments, merely on the basis of their form (that is, according to him, their necessary dependence on discredited notions of meaning). In particular, there is nothing wrong with the conventionalist arguments we have just canvassed in Section I. Such sound conventionalist arguments cannot be refuted. They can

be shown not to impugn the usefulness or objectivity of the notions they apply to. To do this one simply has to come up with some other project, with respect to which the various versions of, e.g., translation, do not play equally well the role that notion is invoked to play. Having shown that with respect to one rendering of the project of a theory of the use of a language, the point of introducing a notion of translation is equally well served by very different translation schemes, one has shown only that the choice between those schemes must be a matter of convention rather than objective fact for that project. And this is not to show that there is not some equally important project for which the choice between different schemes is a matter of empirical fact. In the rest of this section we will present such an alternative project.

Thus far we have been considering a theory of the use of a language to be a characterization of the behavioral capacities which constitute conversational competence in that language. If this is the sole function of a theory of the use of a language, then, as we have seen, practical convenience of representation of one sort or another will be the only means of choosing between alternative accounts which generate the same phonetic descriptions and assertibility conditions. Of course such a theory doesn't tell us everything we might want to know about the use of a language by a population. We might want to know how the practices which such a theory codifies came about historically, for instance, or how certain portions of the brain change in an infant as he begins to learn how to speak the language, or what effects certain aspects of the shared linguistic practices have on the political organizations of the population which engages in them. In this section I want to discuss

one such further puzzle we might reasonably expect a theory of language use to speak to, and which will require us to discriminate between different modes of generation of a single set of phonetic descriptions and assertibility conditions.

The assertibility conditions of a sentence, as we have introduced them, are rules which determine the practice which is the actual use of a sentence. They are to describe what a speaker can do, namely distinguish between occasions on which it is appropriate to use a particular sentence, and those on which it is not. The question I want to consider is, roughly, where the assertibility conditions and phonetic descriptions come from. In virtue of what does a sentence have the assertibility conditions and phonetic description that it does? Uttering sentences is a social practice, and shares with other social practices the fact that the correctness of individual instances or performances of that practice is a matter of consilience with the behavior of other members of the population engaging in that practice. So the general form of the answer is "Because of the way everybody in the linguistic community behaves with respect to the utterances of that sentence." For simple sentences like "This is white" or "There's a rabbit" we can look at the various occasions on which people use the sentences, at the details of any correction or criticism they receive, and can actually watch the shaping of the behavior of children as they learn to conform to the assertibility conditions of those sentences. But what about more complicated sentences?

Chomsky has argued on statistical grounds that most sentences used by adult native speakers have never been heard or used by that speaker before, and indeed that the majority of these have never been uttered by anyone in the history of the language. This is a striking

empirical observation of far-reaching theoretical significance. Let us consider the sentences of English which have never yet been used. Not just any phonetic description is the phonetic description of some sentence of this set, for instance nothing which sounds a lot like "leeg bib tun" is a sentence of this list. But a native speaker can not only discriminate between the phonetic descriptions which are on this list and conform to them in his own utterances, he has exactly the same acquaintance with the assertibility conditions of such a sentence that he does with the assertibility conditions of some familiar sentence like "Please pass the salt." That is, a native speaker can discriminate between occasions on which it might be appropriately used and those on which it would be inappropriate. Granting, as we must, that there is a community of dispositions concerning these novel sentences which is sufficient to determine a social practice regarding their use, a notion of correct or incorrect utterance, surely this fact is remarkable. Why should the community agree as much about how to use sentences no one has ever heard before as about how to use common ones?

In discussing the relation of socially observable linguistic behavior to enabling causal mechanisms, Quine has said:⁸

Different persons growing up in the same language are like different bushes trimmed and trained to take the shape of identical elephants. The anatomical details of twigs and branches will fulfill the elephantine form differently from bush to bush, but the overall outward results are alike.

The details of the common elephant shape are the regularities of behavior conformity to which is a criterion of membership in the linguistic

⁸ Word and Object (M.I.T. Press, Cambridge, Mass., 1960) p. 8.

community, what we have considered as codified in phonetic descriptions and assertibility conditions for the sentences of the language. The leaves and branches are low level dispositions which must be socially trained and pruned to conform to the communal elephant standard. Taking seriously Chomsky's point about the predominance of utterly novel sentences in our everyday speech, however, I think we must alter the figure. For relatively little of the ultimate elephant form is achieved by actually trimming errant branches, by correcting an utterance inappropriate by reason of its phonetic contour or circumstances of utterance, or indeed by being exposed to a correct usage of the sentence. It is rather as if one carefully trimmed young bushes in the shape of an elephant belly and four legs and found that in all except grossly pathologic cases the shrub developed into a perfect whole elephant requiring only minor grooming to achieve identity of form with the other topiaries. For human beings, training in the use of the relatively few sentences we have actually been exposed to determines how we will use (or would use) the vast majority of sentences which we have not been exposed to. And the explanation of this fact will require considerable attention to the details of the causal mechanisms whereby human beings come to conform to linguistic regularities just as the explanation of the remarkable convergence in ultimate shape of shrubs provided with quite different initial elephant segments will require us to look at how these shrubs grow. We may notice in passing that in some ways the situation would be less puzzling if every seed of this particular kind of tree simply grew into an elephant shape without trimming. No doubt the evolutionary process issuing in this result would be wild enough to be instructive, but cedars tend to somewhat similar shapes as things are

now. We can train human children to speak any natural language, however, and to acquire the appropriate dispositions regarding novel sentences. The topiary can exhibit giraffes and gazelles as well.

The question "In virtue of what is there a correct usage for a sentence no one has ever used before?" is distinct from, but not independent of the question "How do individual members of the linguistic community come to acquire dispositions which conform to the standard of correct usage for novel sentences?". The questions are distinct because no individual's dispositions, however acquired, establish a standard of correct usage. The questions are not independent since using a sentence is a social practice. This means that correct and incorrect usage are a matter of a certain kind of congruence of behavior within the community. A particular utterance is a correct one because the community accepts it without criticism, because native speakers understand it as a matter of conversational course. The question of how such agreement is achieved, its source and circumstance, is clearly related to the question of how individuals come to behave in ultimately agreeable ways. When the use by a population of a given corpus C_1 of utterances, specified by phonetic description and assertibility conditions, determines for that population a practice or standard of correct usage for a further corpus C_2 similarly specified, I will say that the population projects C_1 into C_2 . When an individual has been exposed to a corpus C_1 and acquired dispositions to use a different corpus C_2 , I will say that the individual projects the first corpus into the second. The explanation of projection by populations must ultimately rest on facts about individual projective capacities (show individual shrubs turn into elephants), although that explanation need not resemble the explanation of any such individual

capacity.⁹

I want to argue that a theory of grammar is properly a part of the attempt to explain and predict the projective capacities of language-using populations. A theory of syntactic structure, of meaning, and of denotation and truth are to provide a framework for accounting for the empirical fact that the practices of a population which are the use of relatively small number of sentences of a natural language determines, for that population, the use of a potentially infinite remainder they have never been exposed to. The notion of "grammar" which I am addressing here is that of an interpreted categorial-transformational grammar. Such a grammar is an account of the generation of surface sentences of a language, conceived as ordered pairs of phonetic descriptions and assertibility conditions, from an underlying set of deep structures. The deep structures themselves are ordered lists of pairs of categorially tagged lexical items and their interpretations, which meet certain formal restrictions. A surface sentence is generated by the sequential application of a finite number of transformations, whose criteria of application may depend upon the whole transformational history of the structure they apply to. The final transformation of every such history takes the abstractly represented syntactic structure into a phonetic description, and the abstractedly represented semantic structure into a set of assertibility conditions. In the rest of this chapter I will be concerned to show how some of the basic features of such a grammar are required by the task of accounting for the projective

⁹I take the term "projection" from Ziff (see note 1), but my use of it is rather different from his.

capacities of a population. According to the view I will urge, the point of developing a grammar such as that outlined above is the empirical explanation of how human beings, being the particular sort of organism we are, can in fact generate and come to conform to the regularities expressed by the phonetic descriptions and assertibility conditions. The projective capacities which are to be explained are obviously not entailed by the practices and dispositions codified in a list of those phonetic descriptions and assertibility conditions. For we can imagine a being who would come to conform to those regularities by being trained to conform to each one individually. Such a clever and long-lived being might come to be able to converse with us (in sentences with fewer than a thousand words) without projecting at all. His case would resemble the topiary as Quine originally envisaged it, with each aspect of its elephant contour the result of deliberate trimming of that region. (Some commercial foreign language courses actually seek to produce a minor conversational competence in this way.) An account of projection is thus an explanation of how people, being the sorts of organisms we are, can engage in the complex social practices we do engage in. It is just this sort of inquiry which we considered in Chapter III as the sort of inquiry within which the objects involved in a practice become important. In the rest of this chapter I will seek to show that the development of an account of how we differ from the hypothetical being who conforms to the same phonetic descriptions and assertibility conditions we do, but who doesn't project (or, who projects differently than we do, say by the scheme we used in Chapter IV) requires us to develop a theory of grammar, including a theory of the denotation of objects and objective features by linguistic expressions. This will redeem the promissory

note we issued in Chapter III, by applying the pragmatic account of the relation of objects to practices we extracted from Dewey to the case of linguistic practices and the objects they are about.

III

Let us see how investigating some individual projection could lead us to attribute structure to an utterance type. In particular, consider our earlier question as to what would justify us in considering 'gavagai' as a genuine component in the utterance "gatgavagai", rather than thinking of "gatgavagai" as a non-compound utterance within which 'gavagai' occurs only by a phonetic accident, as 'cat' appears in "cattle". Suppose that some subject has never before heard or uttered the expression "gatgavagai", a sentence of his language. Suppose further that upon having the corpus of sentences to which he has been exposed expanded to include the expressions "gat" and "gavagai", used as free-standing utterances, perhaps together with some other expressions in which the phonetic shapes 'gat' and 'gavagai' appear, the subject is able for the first time to use the expression "gatgavagai" appropriately (conform to its actual assertibility conditions). Then we can say that that 'gavagai' is a component in the expression "gatgavagai" for this subject in the straightforward sense that the ability to use the expression "gavagai" appears as a causal component in the explanation of his ability to use "gatgavagai".

Consideration of projective facts of this sort can lead us, further, to attribute structural classes of sub-sentential components to some speaker. For suppose that after acquiring the use of the expression "gatgavagai", the subject is for the first time able also

to use correctly a number of other expressions of the form 'gat + X', where X is some other phonetic shape which the subject has mastered as a free-standing utterance, or as a portion of a compound. The class of 'gavagai'-analogous terms is determined by the subject's similar projection of the elements of that class (they go into the same contexts in forming compound utterances) and by the fact that the capacity to project 'gavagai' in this way is a causal component in the subject's projective capacity to use the other expressions. Let us stop and take notice of a few features of this abstract description. First, we see that the attribution of structural classes in this manner may be very much more complex than in our example. The subject may take expressions of the 'gavagai'-analogous class and compound them with other expressions besides 'gat', determining a class of 'gat'-analogous expressions as well. Quite complicated sets of structural classes and difficult theoretical decisions may result, for instance as one must decide whether to assimilate the X-analogous class derived from one sort of projection with the Y-analogous class derived from another. We are not concerned here with details such as these. We are interested in seeing how, by looking at facts about the acquisition of vocabulary and compounding forms by a subject, we can in principle explain his open-ended competence to use novel utterances, by exhibiting that competence as the product of projective capacities associated with classes of sub-sentential components.

We see that the account which results may be broadened beyond the single individual we have imagined so far. Projective classes for an individual were pictured as attributed on the basis of two sorts of acquisition, roughly the acquisition of some projective form, and the

acquisition of vocabulary. The first occurs when one simultaneously acquires the capacity to conform to the assertibility conditions of a number of novel sentences differing only in the presence of one or another of a class of previously acquired expressions ("gatgavagai", "gatiagavag", etc.) The second occurs when one simultaneously acquires the capacity to conform to the assertibility conditions of a number of novel sentences in all of which the same new expression occurs. The structural classes which result from consideration of the acquisition of projective capacities of this sort clearly need not be limited to a single individual. The same classes may result for a whole population, though details of their acquisitional histories differ. Indeed, it is only in terms of such projective dispositions that we can explain the notion of correctness for novel utterances. Such an utterance is correct if the phonetic description and assertibility conditions it conforms to are those which the rest of the population would project as well. We can only explain how there should be such agreement in terms of shared structural classes induced by familiar expressions, which determine the projection to novel utterances.

It is in connection with a project like this that I think we ought to understand the so-called "syntactic" arguments which linguists offer in justification of deep-structural hypotheses. Thus Chomsky argues for non-apparent structural differences between "John is easy to please" and "John is eager to please" by pointing out that they are treated very differently by the passive construction.¹⁰ In our terms, he points out that the relations of the assertibility conditions of "It is eager to please John" to "John is eager to please" are not analogous to the relations between the assertibility conditions of "It is easy to please John" and "John is easy to please." This form of argument is explicit in the following

¹⁰Syntactic Structures (Mouton & Co.: The Hague, 1957) Chap. 1.

passage:¹¹

(6) I persuaded John to leave.

(7) I expected John to leave.

The first impression of the hearer may be that these sentences receive the same structural analysis... However it is clear that the sentences (6) and (7) are not parallel in structure. The difference can be brought out by consideration of the sentences

(8) (i) I persuaded a specialist to examine John

(ii) I persuaded John to be examined by a specialist.

(9) (i) I expected a specialist to examine John.

(ii) I expected John to be examined by a specialist.

The sentence (9i) and (9ii) are 'cognitively synonymous': one is true if and only if the other is true. But no variety of even weak paraphrase holds between (8i) and (8ii)...The example (6)-(7) shows how unrevealing surface structure may be as to underlying deep structure. Thus (6) and (7) are the same in surface structure, but very different in the deep structure which underlies them.

Chomsky exhibits these examples to get the reader's consent as a native speaker of English as to the different contexts and fashions in which the initial expressions are projected in further constructions. While sentence (7) is projected into a pair of sentences with roughly the same assertibility conditions, sentence (6) is projected into a pair with systematically different ones. Deep structure is a theoretical entity invoked to explain differences such as this. I have presented these arguments at such length because we will see below how analogous arguments can be used to show the need for assigning denotations to expressions as semantic interpretations, in order to generate assertibility conditions.

This picture of linguistic structure as postulated to account for a speaker's ability to use novel utterances correctly, on the basis of facts about the acquisition of capacities to project sub-sentential

¹¹ Aspects of the Theory of Syntax (M.I.T. Press, Cambridge, 1965) pp. 22-23.

expressions, leads immediately to a change in the criteria of adequacy we impose upon translation functions, and accordingly to a change in the notion of the 'meaning' of a sentence which is preserved by translation. The task of a translation-function is to transform the capacity to engage in the regularities of social practice which constitute the speaking of one language into the capacity to engage in the different practices which constitute speaking another language. In our earlier sketch of translation we achieved this end by pairing phonetic descriptions of sentences of the different languages which were associated with the same assertibility conditions. But if translation is really to transform the capacity to speak one language into the capacity to speak another, it must transform an individual's capacity to project novel sentences of his own language with correct phonetic descriptions and assertibility conditions into the capacity to project in the same way in the foreign language. Otherwise he will not be able to speak the new language. In order to learn to speak the new language, to form novel sentences and use them appropriately, an individual must have a translation-scheme which does more than match assertibility conditions. It must generate the matched assertibility conditions of an infinite number of sentences on the basis of a familiarity with the elements out of which they are constructed, as exhibited in fairly small finite samples. The structure we must invoke in order to account for the projective behavior of the various sub-sentential components in generating the phonetic descriptions and assertibility conditions of novel sentences will have to be matched in translations, and hence will be part of the translation meaning of a sentence.

We have considered abstractly how structural classes of utterance-parts originally invoked to explain individual projective behavior—why this speaker uses this familiar phonetic shape in novel utterances in just the way he does—can be shared by a population, and hence determine correct uses for novel utterances. We have not as yet said anything in detail about how projective classes and the explanations they are a part of are envisioned as working in particular cases. In our original example, the subject came to use the expression "gatgavagai" in accordance with a particular set of assertibility conditions, roughly the correct ones for his language, let us suppose. Our account of this fact must show how what the subject learned to do before enables him to use this expression in just this way now, even though he has never been exposed to a correct use of it. (It doesn't really matter if he has heard the sentence a few times. The practice of utterance which is to be summed up in the assertibility conditions is complex, and we would still want an explanation of how exposure to a few correct uses enabled the individual to extrapolate to the rest. Projection is not just a matter of using novel utterances, but also of using familiar ones under novel circumstances.) For instance, a simple account might go as follows. The subject had previously learned to conform to the assertibility conditions of "gat" and of "gavagai", used as free-standing utterances. He uses "gatgavagai" only on occasions when, according to the practices he has previously mastered, it is appropriate to use "gat" and appropriate to use "gavagai". In other words, the set of assertibility conditions of "gatgavagai" is just the intersection of the assertibility conditions of "gat" and of "gavagai". 'Gavagai' would be a part of the expression "gatgavagai" because the

capacity to use it correctly is a causal component in the explanation of the capacity to use "gatgavagai" correctly. Of course we don't have two explanations here, corresponding to two projective capacities, one for the ability to conform to phonetic descriptions and the other for the ability to conform to assertibility conditions. We have an explanation of how the capacities represented in a set of ordered pairs of phonetic descriptions and assertibility conditions can be projected into the capacities represented by a further pair of a phonetic description and a set of assertibility conditions. That explanation may, as we have seen, require that we consider the resulting ordered pair as having a structure, as being built out of components in a certain way.

The components invoked in a structure-attributing explanation of the projected capacity codified by an ordered pair of phonetic descriptions and assertibility conditions need not themselves be such ordered pairs. The case in which this is easiest to see is that in which the corpus from which "gatgavagai" is projected does not contain the expression "gat" used as a free-standing utterance. We suppose that "gavagai" does so occur, and that other expressions which occur by themselves in the projected corpus also have versions prefixed by the noise 'gat'. In this case our explanation of the projective capacity will not involve a description of the contribution of the component 'gat' represented as a phonetic description paired with assertibility conditions. For it has no assertibility conditions. In this case, however, it might still be possible to account for the contribution of 'gat' by associating with it a function from sets of assertibility conditions to sets of assertibility conditions. It

is interesting to see that in concrete cases, even this sort of move may be ruled out, so that one must postulate a theoretical notion besides phonetic descriptions and assertibility conditions in order to account for projective behavior.

Thus suppose that in some original corpus we find the expressions "gavagai" and "iagavag" used as free-standing utterances, with identical assertibility conditions. We also find in that original corpus a sprinkling of possibly compound utterances with phonetic sub-parts 'gavagai' and 'iagavag'. And suppose finally that in the corpus which is projected from this one we find the new expressions "gatgavagai" and "gatiagavag" used with different assertibility conditions. We can conclude that competence involved, not just in using "gavagai" as a free-standing utterance, but in projecting it as a genuine component of compound utterances, cannot be expressed merely by assertibility conditions, but requires some additional element. ("Gavagai" and "iagavag" differ phonetically, but we cannot use this difference in lieu of some further difference. To do so is to assume that there is some non-conventional connection between the sounds involved in an utterance and the use of that utterance, a connection independent of the previous occasions of use of that sound. And this is the assumption of sympathetic magic, of "right names", of an Adam-language.) Let us call the difference between "gavagai" and "iagavag" which determines the difference in projected compounding a difference in their D-classes. So far, this is just a name. The idea is that D-classes of utterances are to be whatever we need to associate with them in addition to phonetic descriptions and assertibility conditions in order to account for the various sorts of projection of one corpus into another which actually occur. In this particular case, we may assume that the compound utterances containing

'gavagai' and 'iagavag' which were part of the original corpus determined a difference in D-classes sufficient to account for the capacity of the subject to project them differently.

We can see what sort of thing D-classes will have to be by considering a case parallel to that above which occurs in English (or a simple extension of English). Consider the report sentences "(There's a) rabbit!" and "(There's an) undetached rabbit-part!". Quine has pointed out that any occasion one might have to issue one of these reports is equally an occasion in which one could issue the other. In our jargon, they have the same assertibility conditions. Yet the reports "(There's a) white rabbit!" and "(There's a) white undetached rabbit part!" have very different assertibility conditions. Brown rabbits with white feet are appropriately reported with the second, but not the first expression. "Rabbit" and "undetached rabbit-part" don't differ in assertibility conditions, and their merely phonetic differences don't matter to projection (since they could still be synonymous, that is, co-projectible). Yet there must be some way to account for the difference between the assertibility conditions of the compounds. That difference is, by our stipulation, to be called a difference in the D-classes of the two expressions. We should notice that the argument we have just considered is formally analogous to two arguments we have seen before. In the first place, it is just the same style of argument which we employed in Chapter IV in order to show that truth conditions were required to account for the contribution by component sentences to the assertibility conditions of compound sentences containing them. Of course, in this chapter we have been much more explicit about the project within which that "contribution" is important, a matter we glossed over before. All we have done

here is to extend the earlier argument to sub-sentential compounding, an extension made possible by the more detailed consideration of why compounding is important. Second, this argument to the necessity of postulating D-classes is analogous to the "syntactic" arguments of Chomsky which we quoted above. In each case similar surface forms (phonetic descriptions and assertibility conditions respectively) are assigned different deep structures on the basis of their different projective roles.

We cannot, then, represent what one learns when he learns to use an expression by the assertibility conditions of sentences using that expression to which the speaker has been exposed. Knowing how to use the expression involves being able to project it into new compounds in the same way that other competent speakers of the language would. This compounding capacity, which is not represented by assertibility conditions, is to be represented by a D-class associated with the expression. Of course some expressions, for instance 'gat' in our earlier example, may not even appear as free-standing utterances capable of being used as reports. So it is clear that these expressions would have to be associated with something besides assertibility conditions in our theory of their projection anyway. The D-class associated with an expression is to sum up for us the compounding behavior of that expression.¹² We will seek to associate with each projectible element

¹²Thus some expressions, such as 'sake' and 'behalf' which Quine mentions in this connection (in Word and Object, p. 244), which are only projected as parts of a few fixed longer expressions, need not be assigned D-classes at all. We will only assign D-classes to the longer expressions within which they invariably occur. We will see below that this is the reason we do not take such terms as referring to anything.

of the language a D-class in such a way that, given the D-classes of all the elements of a sentence, one can determine the assertibility conditions of the resulting sentence. Our explanation of the fact that there are correct phonetic descriptions and assertibility conditions for sentences no one has ever used before will be that the use of those sentences is determined by the grammar, in particular by the D-classes of the familiar parts it is constructed out of, and that any individual's learning to use the language is his learning to conform to the regularities of projection codified in that grammar.

IV

The D-classes necessary for such a grammar should be considered as giving the denotations of the expressions they are associated with. In the argument of Section I of this chapter, we considered denotational relations as correlations between elements of phonetic descriptions and elements of assertibility conditions which could be used to generate the full set of sentences of the language. D-classes serve a sophisticated version of this role in the more complex grammatical project we have presented above. We have found that explaining the actual, empirical generation of the sentences of the language, shown by the sorts of projection of one corpus of utterances onto another which actually occur, requires that structural elements underlying phonetic structure be assigned to parallel structural elements underlying the assertibility conditions, namely D-classes. Just as the structure underlying the phonetic descriptions is plausibly identified as syntactic structure, so the corresponding structure underlying assertibility conditions is plausibly identified as semantic structure. In Chapter IV, we saw that

the assertibility conditions of certain kinds of molecular sentences cannot be generated in a uniform way without invoking in addition to the assertibility conditions of their atomic components also the truth conditions of those components. Since every sentence of English can appropriately occur as a component in one of the designated molecular sentences, this means that we must associate truth conditions with every sentence of the language. Since D-classes are functionally defined as whatever auxiliary we must associate with some projected element in order to explain and predict its projections, the result of the last chapter shows that the D-classes of sentences include the truth conditions of those sentences.¹³ We must associate D-classes with expressions which are not sentences as well, since many novel sentences whose phonetic descriptions and assertibility conditions must be generated by our grammar will be atomic sentences, containing no other sentences as parts. Thus not all D-classes contain truth conditions. The D-classes of sentences must thus themselves be constructed out of the D-classes of sub-sentential elements. So the truth conditions of sentences must be constructed out of the D-classes of sub-sentential elements. Since, as we saw in the last chapter on the basis of the

¹³ I believe that the D-classes of sentences just are truth conditions, rather than simply include them. That is, I think it is likely that a fixed background theory could be developed which, given only the sentence (specified as a pair of phonetic descriptions and assertibility conditions) and its truth conditions, would generate the assertibility conditions of the compounds. If this is true, then perhaps the D-classes of sub-sentential components can be taken to be only the denotations of those expressions, out of which the truth conditions of sentences containing them could be built up. The assertibility conditions of those sentences would then be generated by the background theory from the truth conditions. I do not know how to argue for such a result at the level of generality of this investigation, however.

particular constructions (ESPs) we seized on to discriminate Truth Inducing Sentential Contexts, the truth conditions of sentences must be objective conditions, which hold regardless of what any person or group of people thinks or believes about them, in order to build these truth-conditions out of the D-classes of sub-sentential expressions those D-classes must include objective things and features. And of course the role of denotations in interpreting a theory, from Frege to Tarski, has been to build up the truth conditions of sentences out of objects and objective features associated with sub-sentential expressions. The same argument which gave us objective truth conditions in Chapter IV may thus be extended, within the context of our more detailed account of the empirical project which produces a grammar, to yield a parallel account of the function and origin of objective denotations.

The case of the brown rabbit with a white foot shows that the denotations associated with the expressions "rabbit" and "undetached rabbit-part" must determine in some way the boundaries which white patches must exhibit in order to be grounds for reporting white rabbits or white undetached rabbit-parts.¹⁴ For the capacity in some sense to trace those boundaries, which is represented by the D-classes, will play a prominent causal role in our account of the way speakers are able to project the expressions in different ways, yielding compound expressions whose assertibility conditions require responding differently to situations which differ only in regard to those boundaries.

¹⁴Gareth Evans uses this fact to attack the adequacy of a number of Quine's alternative reference schemes in "Identity and Predication" *Journal of Philosophy* LXII, 13, July 17, 1975, pp. 343-363.

But the boundaries which determine what objects or objective features are denoted by the expressions are not apparent boundaries. For we are not seeking only to explain the capacity of individuals to make different reports of white rabbits and white undetached rabbit-parts. The denotations we assign must also account for the different potential projections of the elements of the Expression Statement Pairs ("There's a white rabbit," "It seems to me that there's a white rabbit,") and ("There's a white undetached rabbit-part," "It seems to me that there's a white undetached rabbit-part,"). Explaining the different patterns of projection of the elements of these pairs requires an objective difference in boundaries around white patches.

This point, that the assignment of denotations is not a psychological matter, can also be made by pointing to the way in which D-classes are to function with respect to uses of these expressions which are not reports. It is important to realize that our grammar does not just seek to account for individual linguistic competence. It seeks to account for the shared projective practices in virtue of which there is a distinction between correct and incorrect uses of sentences no one has ever used before. Thus we must account not only for the use of reports involving an expression like ("There's a white rabbit,") which roughly everyone who acquires an expression must learn, but also for the use of more complicated sentences like "Rabbits are rare among rodents in having only vestigial tails". The grammar must account for the correct and incorrect potential uses of even quite complicated sentences which the ordinary man would never use. The assertibility conditions of such sentences are determined by the linguistic practices of only a small portion of the linguistic community, a body of experts (different for

each expression). It is appropriate for us in putting together a grammar to consider the practices of such a body of experts in assigning a denotation to the expression (rather than, for instance, taking the term as used by the experts and that used by the lay populace as mere homonyms) because the populace defers to the experts, delegates critical authority over disputed utterances. If the experts say it is not appropriate to call that thing a rabbit or a beech tree, it is not appropriate. Of course the grammarian may not simply take the denotation of an expression to be whatever the expert would say he is talking about (making denotations not objective, but social). For the corresponding ESPs must still be discriminated. There is no group which can utter "It seems to us that this is a rabbit," and have that sentence project into compounds in the same way as the sentence "This is a rabbit". So although D-classes are relevant to explaining individual and group linguistic competences, they must be objective things.

I have now shown what I set out to show, namely how objective things and features enter into our accounts of the social practices which comprise a language. I have not sought to develop a theory of denotation founded on the functional role in accounts of projection we have assigned to D-classes, a theory which would say, e.g., what various expressions are best taken as denoting. That is a worthwhile project, but my concern has been to show why it is a worthwhile project, what its point is for the understanding of linguistic practices, rather than to engage in that project in its details. We should not close, however, without taking explicit notice of the way in which objects enter into our explanations of linguistic practices according to the model we adapted from Dewey in Chapter III. For this model, together with the specific characterization we have offered of the empirical inquiry

which will result in a grammar for a language provide us with a straightforward response to Quine's alternative denotational schemes. Notice first that Quine envisions grammar and the semantic structure it requires as part of a retrospective, formal project, while we have presented those notions as parts of a predictive, empirical project. Quine, we saw, thinks of grammar as having the task of finding the most convenient codification of an infinite totality of sentences, regarded as specified (in my view by phonetic descriptions and assertibility conditions) in advance. According to the position we have developed in this chapter, the task of grammar is not to describe such a totality, but to predict what pairs of phonetic descriptions and assertibility conditions will be part of the language, and to explain why this is so. Given our usual reference scheme, specified in terms of the ordinary sorts of objects we are accustomed to report, Quine shows us how to derive alternative schemes which will be formally adequate descriptions of the same totality of sentences. But this has no tendency to show that within our empirical project the derivative schemes are as useful for prediction and explanation as the original one. And indeed, this is not the case. We can indeed make the assertibility conditions of sentences like "There's a white rabbit," come out right by taking "rabbit" as denoting undetached rabbit parts, and the expression "White X" as denoting the class of white wholes which have Xs as undetached parts. But the point is that we need some such translation of the derivative scheme into such ordinary notions as "White wholes" in order to apply the new scheme. And this means that the prediction by the derivative scheme of the assertibility conditions of sentences like "There is a fat, bloodstained, brown and white rabbit," will require us to employ the usual scheme. So from the point of view of the empirical project we are considering, the formal

descriptive equivalence of the two schemes does not induce a practical, predictive equivalence.

We can put this point another way by recalling from Chapter III that we will employ the objects reported in practices which are not at the moment seeking to account for, in explaining how some other practice works. Specifically, denotational schemes are part of an empirical explanation of certain social practices. Such explanations must cohere with the empirical explanations we are prepared to offer for other sorts of human conduct. A theory of how we are able to project the expression "rabbit" must cohere with our accounts of how we are able to do other things involving rabbits, notice them, catch them, cook them, and eat them. And this means that all these accounts should either be in terms of rabbits or in terms of their undetached parts. Of course we could transform all of our explanations into such terms. It would be pointless to do so, but it would be no more or less pointless to transform our explanations of linguistic practices into this form than to transform our explanations of more mundane behavior. Once we see grammar and the theory of denotation which is a part of it as empirical theories, the abstract possibility of formulating such a theory in terms of bizarre objects is not worrisome. It is a prime virtue of the account we have offered of the question to which a grammar would be an answer that it shows us we can pick the objects in terms of which we explain projective practices in the same way we pick the objects in terms of which we explain color vision, indigestion, and quasars. The objects in terms of which we explain linguistic practices will seem to be subject solely to conventional constraints only if we think of them outside of the empirical inquiry I have argued is their proper home.

Chapter VI: Conclusion

This thesis has tried to revive and to advance pragmatism. These are tasks of unequal difficulty and, perhaps, unequal value. By "reviving" pragmatism" I mean bringing it back to life as an identifiable and attractive contender for our philosophical allegiance. This resuscitation requires a characterization of the pragmatic perspective which is precise enough to be argued about in the light of available evidence concerning our language and our knowledge, and interesting enough from the point of view of our currently most urgent cognitive concerns to be worth such argument. The characterization we have developed as a candidate for this privileged position is captured succinctly in the formula: Pragmatism is the view that social practice is the medium of cognition. Of course this formula is only useful insofar as we understand what a social practice is, and what a medium of cognition is. One of the prime innovations our account had to offer pragmatists like Peirce, Dewey, and Wittgenstein (and those who would learn from them) was a commonsensical definition of social practices. P is a social practice just in case it is the response of some community which determines whether or not a particular performance is a performance of the practice P. "Medium of cognition" was initially characterized ostensibly as the role Descartes assigns to the mind and Wittgenstein in the Tractatus assigns to language. This description was then refined and particularized by our consideration of Wittgenstein's pragmatic criticisms in the Investigations of Cartesian subjectivism and Tractarian objectivism.

Claiming that it is pragmatism which is being revived (and not, say, socialism) involves more than just the presentation of a view whose basic concept is that of social practices. It also involves the claim that this view provides a touchstone which will permit us to recognize the genuine insights at work within the ferocious unclarity of the official American pragmatists (Peirce, James, Dewey, and Mead). I believe that the characterization of pragmatism presented in the first two chapters of this essay can accomplish this task. I have not tried to accomplish it in this thesis, however. Dewey is the only one of the original pragmatists whose statements of his own view we have considered in sufficient detail to show the importance of our approach for the historical interpretation of pragmatism. I did not attempt a similar interpretation of the other canonical pragmatists from the point of view of the clarified pragmatism of this essay, interesting and valuable as that undertaking would be, because in the final analysis my guiding interest was not in the exposition and interpretation of pragmatism, but in the attempt to increase its illumination of human language and knowledge. We have examined Dewey's views in Chapter III for the same reason we examined Wittgenstein's views in Chapter I and Quine's views in Chapter V. In each case they have something to teach us about social practices and their relation to the objects they involve. For more important than the issue of exactly who has held the view that social practice is the medium of cognition (and of how they have stated or mis-stated, used or confused it) is the fact that none of these thinkers has offered a satisfactory account of what it is about those social

practices in virtue of which the linguistic expressions involved in them can represent a real world, and represent it truly or falsely according to the disposition of the objective features denoted by parts of those expressions. The main efforts of this essay have accordingly been directed toward providing such an account, rather than toward historical enlightenment.

Let us remind ourselves briefly of the path we cleared in developing our account of the origins of objectivity in our linguistic social practices. The first chapter introduced the pragmatic view of human cognitive activity. Pragmatism is the view that social practice is the medium of cognition. We took Wittgenstein of the Investigations as our paradigm pragmatist, and considered his view against the background of the subjectivist and objectivist views which he took to be its competitors. These views, as well as the pragmatism it is the business of the thesis to develop, were described in terms of a straightforward, commonsensical classification. We saw how Wittgenstein first argues that issuing a linguistically correct utterance is a social practice, according to our definition, and then uses the criterial properties which devolve from this identification to argue that the meaning and understanding of linguistic expressions must not be thought of as objective things or processes. Our accounts of meaning and understanding cannot eliminate reference to social practices in favor of things of the other criterial categories. This is the pragmatic master-argument. Wittgenstein's pragmatism is primarily critical, (as indeed, is any pragmatism which proceeds without the benefit of the clarity of self-definition which can only result from the sort of analysis we offered at the opening of this thesis). Wittgenstein shows that the

subjectivism of the Cartesian tradition and the objectivism of the Tractatus do not offer acceptable accounts of linguistic activity (and therefore of cognitive activity) since they ignore the crucial social dimension of cognition.

The first positive pragmatic endeavor we considered is the account derived from Sellars and Rorty of how a language which consists of social practices of utterance and criticism of utterances can acquire expressions properly understood as reports of mental things. This argument is in a sense the model for the project of the rest of the thesis, which is to show how a language consisting of social practices can have expressions which are properly understood as claims about objective things. We saw further how to extend the artful construction of Rorty and Sellars to deal with the mental activity of willing, as well as sensing and thinking which they had dealt with. This extension not only provided the possibility of a more adequate account of traditional views of the mind from the pragmatic point of view, but more importantly enabled us to begin the substantive consideration of the relation of social practices, to objective things. For it showed us how social practices, particularly linguistic practices, can express that aspect of constraint of the mind which was the primary function of Reality in the Cartesian tradition. This suggested the possibility that instead of adding a category of social practices to the traditional two-sorted Cartesian ontology of mental things and objective things, we replace the category of objective things with that of social practices. The view which would result is instrumentalism, a perversion of pragmatism which stands to it as phenomenalism stands to the subjectivism of

Descartes. (Instrumentalism is pragmatism with reference to objective things eliminated in favor of constructions out of social practices, as phenomenalism is Cartesian subjectivism with reference to objective things eliminated in favor of constructions out of mental things.) One of the prime advantages of the analytic framework we have developed for characterizing pragmatism is that it enabled us to identify clearly and hence avoid the temptations of instrumentalism to which all previous pragmatists have occasionally succumbed. (Wittgenstein is often, and probably accurately, read as an instrumentalist in view of his failure to deal with the issue of objective things and their relation to the social practices he did talk about. Dewey called himself an instrumentalist, and although I argue in Chapter III that instrumentalism in the sense I am appealing to did not represent his best wisdom, he certainly suffered from a sub-clinical infection. Quine's instrumentalist indiscretions, particularly in the realm of linguistics, are of course notorious, and are dealt with explicitly in Chapter V. Similar strains will be found in the pragmatists, such as James, whom I have not tried to interpret in this essay.)

In the third chapter, then, we confronted pragmatism as perniciously ontologized into instrumentalism, the view that the category of objective things can be eliminated in favor of the category of social practices without affecting our ability to explain human enterprises, even those enterprises which we would naively have described as "finding out about the objective world". Our pragmatic extension of the Rorty-Sellars view of the mental to include volitions provided a more cogent proof than even the instrumentalists ever managed of the instrumentalist claim that translation of all our talk into talk about

social practices would not entail the inability to account for the constraint of our empirical inquiries by something other than the inquirers. This strengthened instrumentalism was contrasted with its ontological mirror-image, realism, which would eliminate all talk of social practices in terms of talk of objective things. Dewey's work was interpreted as a subtle pragmatism, capable of reconciling the genuine insights which motivate the opposing views and showing us how to discard injudicious aggression in the name of those insights. Realists were shown how pragmatism can retain the objectivity and constraint on our activity dear to them without the necessity of appeal to ineffable reals. Instrumentalists were shown how pragmatism can retain the account of conceptual change dear to them without the necessity of denying the existence of objective things constraining our inquiry. Objects and practices were seen as related functionally in our empirical accounts of actual inquiries, rather than ontologically in some philosophical super space.

In the rest of the thesis I applied Dewey's model of the relation of objects and practices as interpreted in this chapter to try to understand in some detail how the social practices which are the use of linguistic expressions can make claims about objective things. In the fourth chapter we considered how objective truth conditions, satisfied or not regardless of what any person or group of people thinks about them, are required by an account of the social practices of using various expressions. The lesson we learned from Dewey was that the need for reference to objective things arises in the attempt to give an ordinary empirical account of the workings of actual practices. Truth conditions, on our account, are required to explain the contribution that the capacity to use one expression correctly can make to the

practice of using a different expression, of which the first is a proper part. A technical device was introduced to provide the idealization necessary for detailed argument: social practices of using expressions were represented by objects, sets of assertibility conditions, which are stipulated to determine the desired practices relative to a hypothetical background of interpretive practices. Actual English examples were used, and I made an effort to generalize the results concerning these examples in a way which would not presuppose the perspective of the next chapter (in which a much more specific account was offered of the empirical project within which objective truth conditions must be invoked). The result is the first theory of truth pragmatists have ever had. For their previous efforts are best understood as (bad) accounts of why no theory of truth is needed by a pragmatist. James had originally taken the pragmatic theory of meaning, that the meaning of an expression is the practice of using it, to imply an instrumentalist theory of truth, namely that an expression is true just in case its associated practice is successful. Dewey resisted this instrumentalist notion of truth, for the reasons we considered in Chapter III, but could think of nothing better to replace it than the view that an expression is true if it is uttered correctly according to the practices which govern it. (His official suggestion is that we discard the notion of truth in favor of "warranted assertibility", though he occasionally puts this as an analysis of the notion of truth.) The pragmatists were driven to these extremes simply because they could not see how the notion of truth could be of use in understanding the social practices which comprise the use of a language. This perspective has led to suspicion about the applicability of the whole arsenal of techniques

derived from the study of mathematical objects called "languages" to the investigation of natural languages. By thus demanding cash, in terms of the actual practices of issuing and criticizing utterances of a population, for every formal notion invoked in understanding how a language works, Quine has criticized the entire Carnapian edifice of denotations, translations, intensions, and necessary truths. The instrumentalist challenge of Dewey and of James to the notion of truth was dealt with in Chapter IV in terms which should not alarm their proper pragmatist scruples. The more detailed and sophisticated skepticism of Quine was addressed in Chapter V in the same spirit.

The investigation of truth required us to attribute only minimal structure of the languages we considered. The language was conceived of as a set of sentences, and some of those sentences included others. The point of departure of the fifth chapter is an extension of the principle of this sorting to sub-sentential components, in virtue of the recognition that in actual languages, the correct use of novel, non-compound sentences is determined in some way by the correct use of common sentences which share elements with the novel ones. We then see how the project of accounting for the regularities associated with novel utterances in terms of the regularities associated with familiar ones enforces the attribution of various kinds of syntactic and semantic structure. The role attributed to truth conditions in the previous chapters was recognized to be a special case of that realized by denotational relations according to the more general account. Quine's instrumentalist arguments against grammatical deep-structure, that sort of meaning which is supposed to be preserved in translations, and denotational relations were cast into a form which shows their common root in the pragmatic confrontation of the

abstract notions of linguistic theory by the actual practice of language-using populations. It was then clear how this skepticism could be answered by the pragmatist by considering the project of accounting for empirical facts of the projection of regularities concerning one corpus into regularities concerning a novel one. I offered a sketch of how the various sorts of structure which one would invoke in such an inquiry might be related in an interpreted categorial-transformational grammar of a language.

This thesis is an attempt to present a positive account of the relation of linguistic practices to various sorts of objects invoked in linguistic theory, in response to skeptical, instrumentalist doubts raised by three generations of pragmatists in need of such an account (Dewey so long ago that his objections often seem merely quaint, Wittgenstein just long enough ago for his complaints to seem trite, and Quine generating a vast contemporary literature which shows no appreciation of the historical background of his polemics). I have tried to identify a common pragmatic perspective shared by these various figures, and to respond to their claims in a way which recognizes the validity of their motivating insights. For the pragmatist, human beings differ from less interesting and capable organisms chiefly in the nature and variety of social practices they engage in. From this point of view, the first step in understanding ^{standing} ~~learning~~ any particular realm of human activity is to compare and contrast the social practices involved in other spheres of activity. The thinkers we have identified as pragmatists in view of the role they accord to social practices in accounts of human cognition come from diverse historical traditions and circumstances. Dewey is the culmination of the Golden

Age of American pragmatism, responding more less directly to the European traditions of Kant, Hegel, and Mill. Wittgenstein's pragmatism is a reaction to the objectivism of the Tractatus. And Quine developed his pragmatism in overcoming Carnap and logical positivism. The emphasis on social practices which orients their criticism of their various traditions issues in each case in a challenge to objectivity from the side of those social practices. Each philosopher challenges us to say how social practices can make claims about objective things and states of affairs. They want to know what it is in virtue of which linguistic practices are appropriately understood as practices of talking about objective things.

I have tried to meet this challenge in the thesis. We have seen how the linguistic projects we have inherited from the representationalist tradition of Frege, Russell, the early Wittgenstein, Tarski, and Carnap (those who begin their investigations with the notion that the primary function of language is to represent objective things and states of affairs) can be developed within the pragmatist's project of understanding the social practices which comprise the actual use of a language. We have provided pragmatic credentials to a whole range of linguistic investigations which pragmatists have heretofore taken to be illegitimate in virtue of their lack of apparent connection to social practices. For we have shown how a concern with the representational content of linguistic expressions can contribute to our understanding of the social practices involved in using those expressions. It is important to be clear about the relation of this enterprise to various undertakings within the representationalist tradition proper. We have not tried to say what objective things various expressions denote, or what claims about objective states of affairs they involve. Our concern has been rather to place investigations of that sort in a larger

context. Our investigation is thus better thought of as concerned with the foundations of the theory of linguistic representation than with substantive contributions to that discipline. In talking of "foundations" I do not mean to be presupposing any epistemological view about how valid claims must be "grounded". (For a pragmatist, justification is a matter of social practices, which are in turn a matter of what one can get away with in some community. And such a model does not provide a strong motivation to look for first principles in terms of which all claims must be rendered if they are to be justified.) Our concern is foundational in that it seeks to show the point of engaging in enterprises, such as the investigation of denotation in English, in terms of problems which arise within the pragmatic project of explaining linguistic practices (problems such as the source of the regularities which undeniably govern the usage of novel utterances, which we sought in Chapter V). The prime result we have to offer the investigator engaged in an inquiry into the details of grammar or the denotations to be assigned to actual expressions, then, is a framework, an orientation which insulates him from concern with the skeptical challenge to the legitimacy of his enterprise offered by the pragmatists. We have provided one who is interested, e.g., in formal semantics, with an account of how his subject is related to what people actually do, the linguistic practices they engage in. We have not offered any further help, save for a few remarks in passing, about how to deal with the substantive issues which make up his discipline.

Our account of the relations of objects and social practices thus accomplishes both an interpretive task—presenting a novel and more precise account of pragmatism and its legitimate claims to our attention

than is available from previous pragmatic works—and a substantive explanatory task—showing in some detail how the pragmatist can fit into his view such essential elements of the mainstream representationalist account of human cognition as the notions of an external reality constraining our inquiries, of claims about that reality which are objectively true or false, and of the generation of that representative capacity by the denotation of objective things by linguistic terms. But we should not think of this undertaking merely in terms of a demonstration to the pragmatist of the value for his purposes of these notions and the conceptual apparatus which has grown up around them. For without such a demonstration, pragmatism is, as it has been, a merely critical perspective (indeed, dominated by its instrumentalist tendencies, a merely skeptical perspective), so remote from the perspective of the representationalist as to offer him little enlightenment. Not to put too fine a point on it, it is difficult to take seriously an approach to cognition and language which seems to require that we jettison the notions of reality, truth, and representation. (In this respect the pragmatism developed in this essay stands to the pragmatism of, say, Dewey, as the idealism of Kant stands to that of Berkeley.) The project we have undertaken is thus to be thought of as a vindication of pragmatism from the perspective of realism or representationalism every bit as much as the other way around. It is important that the pragmatic approach to human activity be made respectable, because the emphasis on social practices which is the essence of pragmatism holds out a promise available nowhere else of the integration of our understanding of the function of representation into a larger context. Our concern in this essay, particularly in the second

half of it, has been almost exclusively with language as it is appropriate to scientific inquiry. It is language in its descriptive capacity (which is refined for scientific purposes) to which the notions of reality, truth, and representation which we have been concerned to reconstruct primarily apply. For the pragmatist, however, descriptive practices are one set among many, the house of language has many mansions. He will want to investigate the linguistic practices central to literary traditions as we have investigated those of most concern for scientific traditions. The concept of metaphor is as worthy of pragmatic investigation as the concept of truth. And the pragmatist is prepared to examine the practices in virtue of which there are metaphors without wanting to or having to take them as derivative from the practices in virtue of which there are true descriptions of objective things. The pragmatist sought an account of the relation of the notion of truth (and its attendant notions) to the practices of uttering linguistic expressions and to the change of practice which is the transformation of a descriptive-explanatory tradition. But he desires also parallel accounts of such complexes of social practices as artistic and moral traditions, and of the notions of beauty and goodness appropriate to those practices. For the pragmatist, human culture is a web of social practices. To appreciate that culture in its mighty diversity and complexity, we must seek to understand the special characteristics of the social practices which comprise each of its various traditions, from law to warfare. There are none of these cultural domains in which language in its descriptive capacity does not play a role. But understanding that role in its relation to practice gives us no more than a start in approaching those multifarious enterprises.

Abstract of Practice and Object by Robert Brandom

This thesis is a clarification and development of pragmatism, a view I take to be shared not just by Peirce, James, Dewey, and Mead, but by Wittgenstein, Quine, and Sellars as well. I distinguish three genera of thing-kinds, the mental or subjective, the social, and the objective, according to the criteria of identity appropriate to instances of those kinds. The subjective is that for which we grant criterial authority to an individual, the social is that for which we grant such authority to a group, and the objective is that which is what it is regardless of what any individual or group takes it to be. Pragmatism is the view that to have knowledge is to engage in certain kinds of social practices, a view we may contrast with subjectivism (the view that to have knowledge is to be in certain mental states) and objectivism (the view that to have knowledge is to have a set of objective things, typically linguistic expressions forming a theory). I present the pragmatic master-argument against subjectivism and objectivism in detail in the form of an interpretation of Wittgenstein's Investigations. The rest of the thesis is an attempt to show how knowledge which consists of social practices can nevertheless be knowledge of objective things (just as, for instance, Cartesian subjectivists were faced with the project of explaining how knowledge, according to them consisting of mental particulars, could be knowledge of objective things). At the center of this project is an argument to the effect that the social practices which are the use of the sentences of any language meeting certain formal conditions cannot be understood solely in terms of correct or incorrect social performances, but must be associated with objective truth conditions. Further development shows under what circumstances objective denotational correlates must be associated with sub-sentential components. Discussions of Peirce, Dewey, and Quine show how to meet various skeptical challenges, and provide pragmatic credentials for the notions of an objective, non-social reality, truth, and representation.