Articles

Theory and Autonomy*

Ann Hartle, *Emory University*

Only a theory can save us now. Or so it would seem if we accept the claims of many professional philosophers and social scientists. The social sciences[1] have come to replace philosophy as the discipline whose task is the most comprehensive account of the human: 'theory' claims to replace philosophy. Philosophy itself then becomes meta-theory.

In his critique of the social sciences, *The Battle for Human Nature,* Barry Schwartz notes that "a significant part of what used to be taught as moral philosophy is now taught under a different name: social science."[2] Within moral philosophy itself, the same kind of replacement has occurred. The task of moral philosophy is understood to be the construction of moral theories. In *Whose Justice? Which Rationality?* MacIntyre describes what he is doing as the construction of a theory about the kind of rationality inherent in tradition. The moral philosopher is a "theorist"[3] and the solution to our epistemological crisis is a new theory.[4] Further, the individual who must make some decision is mirroring what the moral philosopher as theorist has to do; he must construct "a deductive system through which he or she can discover true answers to [moral] questions."[5] For Barry Schwartz, "deciding on what should be depends upon having a moral theory. . . ."[6] There seems to be rather general agreement that only a theory can save us now.

The notion that *all* philosophy is theory or theory construction pervades and is even assumed in much contemporary philosophical discussion. The task of the philosopher does not differ in purpose or method from the other sciences;[7] it differs only in the breadth of its framework.[8] Philosophy is, at best, a theory of theories. Or in other terms, philosophy is a "second reflection" on the objects of science, art, and morality.[9] Finally, the claims of theory-construction have spread to all forms of thought: all thinking is 'theorizing'. For Churchland, "folk psychology" is a theory. We are never outside some theory.

The attempt to replace philosophy with theory, both by the social sciences and within the professional discipline of philosophy itself, can be seen, in part, as the most recent version of the attempt to deny the significance and uniqueness of the philosophical task. The social sciences claim to be superior to philosophy, to be able to accomplish what philosophy has failed to do. As E. O. Wilson puts it: "ethical philosophy must not be left in the hands of the merely wise."[10] The critics of philosophy deny to philosophy even the description of "the *search* for wisdom."

* An earlier version of this paper was presented to the Luce Faculty Seminar of Emory University.

I wish to thank the participants for their helpful remarks.

What I intend to do in this paper is to examine the notion of 'theory' in order to reveal what I regard as one of its most troubling aspects. I want to show that theory does not and cannot replace philosophy. Rather, it is an imitation of philosophy, a counterfeit and impostor. I will begin by clarifying what is meant by 'theory' as that term is intended by those who understand themselves to be in the business of constructing theories. I will then focus on one essential move within the process of theory-construction, a move that is generally referred to as 'abstraction'. It is here that the task of theory-construction reveals most clearly its questionable relation to reality, especially to the human world. Then, I will turn to the issue of autonomy in order to bring to light an essential difference between philosophy and its counterfeit. In the final section, I will attempt to draw out some implications concerning what genuine philosophy is, against the background of the deficiencies of theory as an account of the human.

Theory

The terms 'theorizing' and 'theory' are often used imprecisely and unselfconsciously simply to mean thinking and thought without any implication concerning what the precise nature of that activity and its products might be. But when these terms are defined by those who see themselves as theorists, we can notice several almost universal characteristics.

It is in terms of three of these characteristics that I define the notion of theory that I want to examine, criticize, and contrast with what I take to be genuine philosophy. First, a theory is a self-contained, consistent web of sentences. But what distinguishes a theory in the precise sense from any other kind of account is that the sentences of the theory are related to each other by virtue of the univocal meaning of the terms. Each so-called "theoretical term" has a *univocal* meaning. Second, these theoretical terms are arrived at by a process that is usually referred to as "abstraction." Abstraction in this sense is not, for example, the abstraction of the universal from many particulars. It is rather an abstraction first from metaphorical meaning and ultimately from literal meaning. Third, what counts as "reality" is held to be constituted by the theory, hence by the mode of thought called "abstraction."

This specific sense of 'theory', then, is very different from the traditional notion of the "theoretical" as that notion emerges in the ancient distinction between the theoretical and the practical. The theoretical is grounded in the activity of *theoria*, a kind of vision of reality, and is ultimately a kind of wondering contemplation. In contrast to theory, the theoretical is not a constitution of reality but a beholding of reality and an attempt to provide a complete account of that reality. The completeness and the finality for which the theoretical strives requires the most comprehensive and "concrete" account. Theory, on the other hand, is necessarily partial (and therefore always revisable) because abstraction deliberately and systematically leaves behind those aspects of things which cannot be accommodated within its univocal web of meaning.

A theory is a set of sentences that are related to each other, a kind of network in which at least some of the relations are logical relations. MacIntyre refers to a deductive "system," Quine to a "fabric." For some theorists, and certainly for the social scientists, a theory is related to "data" or to "observation." But the nature of this relationship is open

to debate. The data may be sensory input or stimuli, but this input is more or less already formed by the theory and thus more or less close to the "object" in question. For Quine, a theory is like an arch, grounded in sensory stimuli.[11] For MacIntyre, "there are no preconceptual or even pretheoretical data." It is impossible to describe actions "except by employing some particular theory-informed or theory-presupposing scheme of concepts."[12]

Despite disagreement about the degree to which the data are "given" or the degree to which even perception is "theory-laden," there is general agreement that a theory is a virtually self-contained system, scheme, or web. Each science is such a system and so-called ordinary life, ordinary language, everyday ordinary experience all take place "within" a theory.

Since all thinking is theorizing, rationality is taken to be just this move from data to theory. For the time being we might say that the 'data' are the theorist's link with reality; the data are the touchstone, the "hard evidence" on which the theory is based. Quine's metaphor of the arch with its feet in concrete observation or sensory stimuli suggests this way of seeing the matter. (It turns out that this link with reality is not quite so clear-cut, but I will return to this question later.) Social scientists consistently make their claim to rationality by appealing to the fact that their sciences are grounded firmly in hard data.[13]

As the theorist ascends from data to theory he finds regularities in the data that were not immediately apparent. Churchland defines 'theorizing' as finding regularities that lie behind or underneath the superficial regularities.[14] MacIntyre constructs his theory of traditions by finding the deep regularities in the four traditions he discusses.[15] The theory of evolution finds 'natural selection' to be beneath or behind the data and sociobiology finds "maximizing inclusive fitness" even further beneath the data.

The terms of a given theory are, for the most part, referred to as "theoretical terms." Such terms as 'believe' and 'want' are theoretical terms within the theory that is "folk-psychology." 'Natural selection' is a theoretical term within the theory of evolution. Theoretical terms have their meaning relative to the rest of the theory. They are not directly related to objects, to things, or to observation. Here again there is some disagreement about the nature of observation and the status of observation terms, but there is general agreement concerning the notion that theoretical terms have their meaning only in relation to the rest of the theory and not on account of any "direct" relation with what is observable.

It is at this point, I think, that we can begin to see what the relationship is between a theory and "reality." (Theorists themselves often use the term 'reality', so my use of it here is not intended to hold the theorist to a standard of reality that he himself would not accept.) In his analysis of the theory of evolution, Goudge puts quite clearly the character of what are generally referred to as theoretical terms. The theory of evolution "is abstract in character and requires for its formulation concepts which cannot be correlated with what is directly observable."[16] "Theoretical constructs" are "abstract ideas" which have no direct empirical interpretation. "They nevertheless play an important role in the framework of the theory. Their scientific admissibility depends on the fact that they occur in statements which have a systematic or deductive connection with observation state-

ments which refer directly to empirical data. Because of this systematic connection, theoretical constructs have scientific meaning conferred upon them."[17]

Abstraction

It is not entirely by accident that Goudge uses the term 'abstract' to describe the theory and its theoretical constructs. Theoretical terms are, at least in certain decisive cases, reached by a process that is either explicitly or implicitly a process of abstraction. The terms 'abstract' and 'abstraction' have a wide variety of meanings and within the philosophical tradition alone these meanings can be significantly different. 'Abstract' can mean, for example, 'immaterial' or 'general', and the process of abstraction can refer to the move from particular to universal or from things to numbers. Moral philosophers have criticized the tendency to abstract from history and from circumstances; the abstract is often contrasted with the concrete.

For my purposes, I need to discuss three meanings of 'abstraction', two of which are discussed by the theorists themselves and the other of which the theorists actually do, more or less knowingly. Both Quine and Churchland refer to propositions as "abstract objects" and both want to eliminate these abstract objects or any need to consider them. Quine refers to the "disreputable origins of abstract discourse" in our evolutionary history. Such discourse must have had survival value but no longer does.[18] For Gibson, so-called 'concepts' are nothing but partial abstractions,[19] but the abstraction of the invariants is not an intellectual act of lifting out something that is mental from a collection of objects that are physical.[20] The point here is that, on the whole, theorists agree in rejecting any notion of abstraction that entails or implies an immaterial agent or any form of existence that might be immaterial.

But, on the other hand, the terms 'abstract' and 'abstraction' are typically used to refer to certain aspects of thinking. Quine claims that physics is more abstract than zoology because it entails a "more ruthless abstraction from differences in detail."[21] Philosophy then is even more abstract, seeking the "most general traits of reality."[22] In Churchland's description of how a computer network "learns" to distinguish between rocks and mines, he refers to the "internal pattern or abstract organization" that is characteristic of mine echoes as opposed to rock echoes.[23] Although Gibson denies that knowing and perceiving are kinds of "lifting out," he refers to knowing in terms of 'abstraction' and to perceiving in terms of 'extraction.'

So for the theorists in question, there is good abstraction and bad abstraction. But this good abstraction is never really explained. It seems to be the crucial step in the process of thinking but it is never directly addressed. When Quine reaches the point of stating his teaching concerning the logic of quantification, he puts it this way: "The doctrine is only that such a canonical idiom can be *abstracted* and then adhered to in the statement of one's scientific theory. The doctrine is that all traits of reality worthy of the name can be set down in an idiom of this austere form if in any idiom."[24] Churchland describes what happens in the formation of our most general, abstract plans and intentions: "Cells in the primary cortex project to cells in the secondary cortex . . . and these secondary cells are responsive to more complex and abstract features of the sensory input than are the cells

in the primary cortex. Secondary cortex, in turn, projects into the . . . tertiary or association cortex. Cells in the association cortex are responsive to still more abstract features of the original sensory inputs. . . . It would appear that the brain's most abstract and integrated analysis of the sensory environment takes place in the association cortex between the several sensory areas."[25] In each case, this is as far as the account of abstraction goes. And the account cannot go any further on the theorist's own terms, partly because the stimulus-response explanation cannot be adequate to what is in need of explanation and partly because the theorist is engaged in another kind of abstraction of which he is more or less aware--the kind of abstraction that produces theoretical constructs.

In order to display this kind of abstraction, we can look to what is regarded as the most important theoretical term in the theory of evolution, i.e., 'natural selection'. Natural selection belongs to the theoretical framework of evolutionary theory, that is, it is not directly observed but is inferred from what is observed. Futuyma refers to mutation and natural selection as the "theoretical mechanisms of evolutionary change."[26] 'Natural selection' is a theoretical term that has its meaning fixed by its role in the framework of the theory. I will follow Goudge's account of how this term became a theoretical term:

> The term 'natural selection', like many other scientific expressions, has its roots in ordinary, non-scientific discourse. The word 'selection', for example, before it became part of the language of biology, had an established meaning in everyday language, where it designated a kind of purposive activity performed by human beings; the activity involved choosing some object . . . from a number of available alternatives. This is the sense in which Darwin first used the word . . . when discussing the effects of the breeding of domestic plants and animals. By 'artificial selection', men exercised a deliberate choice of the parents of each generation. Darwin then proceeded to employ the term 'natural selection' to designate a process which goes on 'under Nature', quite independently of human intervention. In this new context, 'selection' ceased to have a literal meaning, as Darwin clearly saw, and became a metaphor.

But the move from the literal to the metaphorical turned out not to be sufficient. For the evolutionary theorist "a sounder policy is to disregard the metaphorical significance of 'natural selection' and take it as a technical expression whose meaning is fixed by its role in the framework of evolutionary theory. The expression can then be freed from its associations with the idea of conscious choice which arise from the use of 'selection' in everyday discourse. . . ."[27]

The kind of abstraction that results in theoretical terms is an abstraction from metaphor. And this procedure is common in evolutionary theory and the social sciences that depend upon it. For example, we can speak of the strivings for survival and reproduction as two 'purposes' in a metaphorical sense.[28] The notion of adaptation "makes implicit use of the concept of 'purpose' or proper function."[29] We can say that reproduction is the link that connects the individual members of successive generations in an unbroken series provided we keep in mind that we are speaking metaphorically and that expressions such as 'the continuity of all living things' cannot be taken literally.[30] A living thing may be defined as "any semiclosed physical system that *exploits* the order it already possesses, and the energy flux through it, in such a way as to maintain and/or increase its internal order."[31] Organisms "serve the interests of their genes," but the interests of the organism

can clash with the interests of genes. DNA "communicates" with protein to instruct and guide its growth and behavior.[32] Genes have "purposes."[33] In pair-bonding species, males "know" where their genes are.[34] Gluttony is explained by the fact that the control centers in the brain "think" that the surplus of food will end.[35] There were selective pressures for more complex brains: a problem-solving capacity, an information storage capacity, and even abstract thought were "needed" at various times in the course of evolution. The term 'soul'[36] is a metaphor for our subjective experience[37] Even Gibson, who resists so much of what is commonly accepted in the social sciences, refers to 'extracting' (the extracting that constitutes perception) as a metaphor.[38]

I am not now criticizing the sciences for the use of metaphor. What I am concerned with here is the status of these metaphors with respect to theory and to "theoretical terms." Terms or expressions are taken over from so-called ordinary speech and are used "in special ways" to convey scientific ideas. "At first these expressions have a predominantly figurative or metaphorical meaning in their specialized contexts. Repeated use, however, tends to alter the meaning so that the metaphorical aspects disappear. The expressions then become wholly technical terms whose significance is determined by their role in scientific discourse."[39] The expression starts out at the literal level, then becomes a metaphor, and then turns into a theoretical term. At that point the term is entirely cut off from its literal meaning. The term 'natural selection', for example, has no literal meaning. But it is supposed to refer to 'reality'.

The theorist's response might be that what I am calling the literal level is really just another theory. But the metaphorical level presents problems for the theorist's answer. The metaphorical level makes sense only if there is a literal level. "We can only recognize that an utterance is a metaphor if we know that it should not be taken literally: and this, of course, requires familiarity with the literal meanings of at least some of the words and phrases deployed in the utterance. Equally obvious is the fact that we cannot understand or be appropriately affected by a metaphor unless we are acquainted with the literal meanings of the terms used within it."[40] The literal meaning does not disappear when the word is used metaphorically. The metaphor is dependent upon the literal meaning. The literal level, then, is in some sense primary. The theoretical depends upon the metaphorical and the metaphorical on the literal. The theorist kicks away the linguistic ladder by means of which he ascended and stands in mid-air.

Further, the procedure of disregarding the metaphorical meaning of a term and then using it as a theoretical term with a certain, univocal meaning is ultimately arbitrary. "When a technical word is coined to designate some nonlinguistic phenomenon, or when a word . . . is taken over from ordinary speech and used to designate the phenomenon, a new semantic rule is required" to specify the range of application of the word. The formulation of the rule is "a human decision," and there is no point in complaining that this is arbitrary, "for there is no other or better way of arriving at semantic rules."[41] As Churchland admits: "the abuse of accepted modes of speech is often an essential feature of real scientific progress."[42] Within the context of criticizing certain notions of "abstract numbers," Frege describes the magical effects of abstraction: if you find that some property of a thing bothers you, you simply abstract from it and "in your possession of these miraculous powers you are not far removed from the Almighty."[43]

The procedure of arriving at theoretical terms in this way is not unlike what Quine means by 'analysis' and what Derrida refers to as 'erasure'. All presuppose that the literal level (or so-called ordinary language) has the same origin as the technical vocabulary, that literal meaning is arbitrary, a human decision.

When Quine explains what he means by offering an 'analysis' or 'explication', he says that "we do not claim to make clear and explicit what the users of the unclear expression had unconsciously in mind all along. We do not expose hidden meanings, as the words 'analysis' and 'explication' would suggest; we supply lacks. We fix on the particular functions of the unclear expression that make it worth troubling about, and then devise a substitute, clear and couched in terms to our liking, that fills those functions. Beyond those conditions of partial agreement, dictated by our interests and purposes, any traits of the explicans come under the head of 'don't-cares'. Under this head we are free to allow the explicans all manner of novel connotations never associated with the explicandum." [44]

Derrida's procedure of 'erasure' entails putting a cross through the word and thereby marking the absence of any signified. He thus takes himself to destroy any metaphysical baggage that normally accompanies the word. "There are, however, very definite problems for the reader in this procedure. For it is never clear what remains to be grasped when once a word appears under erasure. . . . Derrida recognizes the difficulty and invents the notion of a trace in order to circumvent it. In using a word under erasure, he concedes, one exploits its literal meaning in order to convey a specific sense, but having done so, one immediately disowns this meaning. It is this trace or 'echo' of its literal meaning which gives provisional sense to the utterance: a sense which is instantaneously withdrawn and denied."[45]

For Derrida, there really is no literal meaning. Whatever seems to have a determinate meaning must be metaphorical. There is no literal meaning because the so-called literal meaning "is always a function of the use to which we choose to put our words."[46] The vocabulary of science, then, is just one vocabulary on a par with all others and science can claim no special ability to impart "literal truths." Derrida sees through to the theorist's problem here.

For Quine "the positing of . . . extraordinary things [like molecules] is just a vivid analogue of the positing or acknowledging of ordinary things: vivid in that the physicist . . . posits them for recognized reasons, whereas the hypothesis of ordinary things is shrouded in pre-history." We cannot speak of the motives for this "archaic and unconscious hypothesis of ordinary physical objects" but the positing in ordinary language does not differ in function and survival value from that of physics.[47]

But in spite of the fact that the theorist wants to deny any special status to the literal level, he recognizes the primacy of literal meaning because he claims to impart "literal truths." For Quine, relativity physics is "the literal truth."[48] For Churchland, "Folk-psychology is literally a theory."[49] The "literal application" of such concepts as 'witch' has been permanently withdrawn and the concepts of folk psychology await a similar fate.[50]

The theoretical term simply becomes a literal term, takes on a literal meaning. Although it is two (arbitrary) steps removed from the original literal level and although it is supposed to have its meaning only in relation to the theory, it is the only speech that is truly precise, that refers directly--non-metaphorically--to reality.

Theoretical terms refer precisely and directly to what is real. The distinction between appearance and reality is fundamental here. For Churchland, "it is the job of science to throw back the enveloping shadows and reveal to us the inner nature and secret workings of the mind."[51] Futuyma claims that learning about evolution teaches one how to think, i.e., to see past superficial appearances to the reality beneath.[52]

The notion at work here is that the appearances are superficial and do not reveal the inner nature of the thing in question. Appearances can, in fact, be downright misleading. In this respect, the social sciences would seem to be simply following the example of the physical sciences. The study of human reality, it is said, need be no different from the study of physical objects. Churchland criticizes what he calls the "traditional view," i.e., the view that "once one is considering the states of one's own mind, the distinction between appearance and reality disappears entirely. The mind is transparent to itself, and things in the mind are, necessarily, exactly what they 'seem' to be."[53] The argument for dualism that is based on introspection is deeply suspect "in that it assumes that our faculty of inner observation or introspection reveals things as they really are in their innermost nature." But other forms of observation do not reveal things as they really are: "The red surface of an apple does not look like a matrix of molecules reflecting photons at certain critical wavelengths, but that is what it is."[54]

Agency

It is important to consider here the kind of rejection of appearances that characterizes the social sciences: what is being rejected, how is this rejection accomplished, and what, finally, is the relation between appearances and reality for these sciences? The rejection of appearances is at least in part the rejection of agency, and it is accomplished by means of the kind of abstraction already discussed. The social scientist might respond that his rejection of agency is no different from the rejection of the notion of agency in physics. But it seems to me that the social sciences cannot defend themselves in this way because the relationship between appearance and reality for the social sciences is not the same as that for the physical sciences.

If we consider the rejection of the very term 'progress' from the theory of evolution, we can begin to see these features of the rejection of appearances. Huxley was willing to use the term 'progress'. He preferred to take over the familiar word *progress* rather than to coin a special term. But contemporary evolutionary theory finds this unacceptable. Defining 'progress' "in strictly biological terms" would require the exclusion of all elements of value from it. "Popular thought has often regarded progress and evolution as identical . . . since in ordinary usage the terms 'progress' and 'evolution' . . . do have an area of common meaning." The proposal to define 'progress' in strictly biological terms must begin from ordinary usage and attempt to proceed to a more precise meaning. But this attempt fails. As one critic of the attempt puts it: either the word is simply adopted

"as a label for biological phenomena which would be less misleadingly designated by a technical term having no analogue in ordinary language; or the attempts do not succeed in getting rid of the evaluative features of the concept but simply retain these features in a covert form." The procedure of abstraction, which is supposed to work in such cases as 'natural selection', does not succeed here because "the concept in its everyday use has an evaluative connotation which even a philosophical re-definition has to retain."[55] In spite of (or because of) the area of common meaning shared by the terms 'progress' and 'evolution' in everyday language, the notion of 'progress' cannot be retained in biological discourse.

If we consider the concept of 'purpose' we see the rejection of appearances even more clearly. And this rejection of appearances is a rejection of agency in nature. It is important to note that the theorist does not deny the appearance of agency in living nature. Goudge often speaks of the appearance of design.[56] In fact, he claims that "the general effect is that of a well-arranged scheme, exhibiting a remarkable degree of design. If one turns from the overall effect to the detailed characters of animals and plants, one is further struck by the fact that nearly all these characters appear to serve some purpose in the life of the organism."[57] We are not entitled to affirm or deny that there is purpose in nature, but we can speak of "ostensible design or plan" and of "apparently purposive forms of behavior."[58] Schwartz expresses the same notion: "Natural selection provides an unintelligent, non-teleological mechanism to account for what seems to be highly intelligent and goal-directed characteristics of organisms in the natural world."[59] It is "natural" to say that selection 'produces' effects and "this mode of speech readily suggests the idea of an *active force* at work."[60]

But this appearance must be rejected: "The system *seems* supremely purposeful, but this is only an appearance." Words like 'purpose' or 'interest' are only convenient anthropomorphisms "used to explain a process that involves no volition or intention on the part of agents."[61]

In his description of the Western "folk-model" of the mind, D'Andrade points to one of the major disagreements between this folk model and the academic (psychological) model. The disagreement centers around the question of motivation. The term 'motivation' has its roots in the folk model but has come to have a specialized meaning: 'motivation' does not refer to a phenomenological state or process, i.e., it does not refer to the conscious experience of the person. "Instead, motivation refers to a condition of deprivation or arousal of the 'organism' that is only variably correlated with phenomenological experience. . . . Most psychologists consider motivation to be a real rather than a hypothetical state of the person but not a state that the person is necessarily aware of." The psycho-analytic model, on the other hand, regards unconscious states and processes as the center of the causal system. D'Andrade concludes that "even though the academic and psychoanalytic models have their origins in the folk model, both are deeply at variance with the folk model. That is, the folk model treats the conscious mental states as having central causal powers."[62] Schwartz expresses this somewhat differently. For the behavior theorist "'Intelligent' action is not the result of planning and foresight; it is the result of selection of behavior that works by the principle of reinforcement."[63] The sociobiologist says that one must look beneath the surface for the true source of behav-

ior--inclusive reproductive fitness. We may want to deny this, but we only deceive ourselves. In the words of R. D. Alexander: "Selection has probably worked against the understanding of such selfish motivations becoming a part of human consciousness, or perhaps being readily acceptable."[64]

My point here is *not* to defend the notion that there is final cause operating in nature, that our minds are transparent to us, or that our motives are fully understood by us. My point is that the social sciences do not reveal to us the *causes* of those appearances. The appearances may be, in fact, misleading, just as the experience of seeing the sun move across the sky is misleading. But the astronomer can show us *why* we have that experience, and the social scientist cannot tell us *why* we have the experience of consciousness, of motivation, of action. The appearance of agency is systematically rejected in the social sciences. The terms in so-called ordinary language which express agency are declared to be metaphors.[65]

Even Gibson ultimately falls back on the stimulus-response account of perception. He insists that "perception is not a response to a stimulus but an act of information pickup,"[66] that our perceptual systems are active, not passive.[67] But when it comes to explaining what this information pickup is, he refers to "extraction" as a metaphor and he likens it to 'resonating' or 'being attuned to'.[68]

The social sciences cannot get beyond the stimulus-response account of human action. For Quine, "words mean only as their use in sentences is conditioned to sensory stimuli, verbal and otherwise. Any realistic theory of evidence must be inseparable from the psychology of stimulus and response, applied to sentences."[69] Churchland defines intelligence as "the possession of a complex set of appropriate responses to the changing environment."[70] E. O. Wilson defines mind as the summed activity of a finite number of chemical and electrical reactions.[71] Action, both intellectual and moral, is reduced to behavior.

One reason why the social scientist cannot get beyond the stimulus-response account, even when he wants to make room for human action, is that he sees action only in terms of force. Gibson notes that "animate objects differ from inanimate objects in a variety of ways but notably in the fact that they move spontaneously." Like inanimate objects, they can be moved by external forces, "but they can move actively under the influence of internal forces."[72] The view that action is "internal force" leads to claims such as this: "When we have characterized the biology of moods we will have characterized the major forces behind behavior."[73]

The human being as the object of the social sciences is, then, simply passive, subject to forces both external and internal. His responses to stimuli must always be selfish; he only deceives himself if he believes that he ever acts for other reasons and from other causes. And as Oakeshott claims: "The myth of the necessarily egocentric agent is a denial of agency."[74] Agency is denied both in nature (by the theory of evolution) and in man.[75]

Autonomy

But the agency and autonomy, which are denied to man as the object of the social sciences, are supposedly returned to him by these same social sciences. The claim is that we can be autonomous agents only through theory. Theory frees us from nature and gives us the power to truly direct ourselves.

Man is distinguished within nature by the fact that he is "the only living thing who is able to formulate a theory of evolution"[76] and this "pure knowledge is the ultimate emancipator."[77] The human species can change its own nature through the science of genetics,[78] and the "genetic analysis of behavior can lead to an increase not only in human welfare, but in human freedom."[79] Finally, the purposiveness which was so thoroughly expunged from nature is reintroduced. The theory of evolution is itself adaptive. The theory has enabled man to grasp important truths. "As long as he was ignorant of these truths or embraced false beliefs about the world and himself, he was faced with the problem of adapting to an environment which was a mixture of illusion and reality."[80] Until now, "man has not guided the overall course of his own evolution. And he has obviously not guided his own social and political history. What has happened in both these areas has been very largely blind! What *can* happen in the future has at least the possibility of being 'planned', since man has arrived at the point where his knowledge makes him increasingly able to modify, or even to direct (within certain limits) his own physical and cultural evolution. Should he ever succeed in doing so on a sufficiently grand scale, the evolutionary process will be purposive in a way that it has never been before."[81]

Only through theory can we be free agents. Everything depends on getting the right theory. The replacement of moral philosophy by moral theory reveals the same notion. In his discussion of the way moral philosophers have dealt with the question of abortion, Philip Abbott notes that "the philosopher's imagination is set loose to explore every possible moral dilemma *except* those which people confront in their everyday lives. The philosopher's response is that we cannot confront the human condition *directly*. . . . Philosophers have moved into the world of fantasy [talking robots, human cats, and Martians] in the same way and with the same verve that social scientists moved into the world of quantifiable facts. We are admonished to liberate ourselves, both from what are viewed as merely personal feelings and the superficiality of unordered reality in order to steel ourselves for the consequences of the real objectivity of method."[82]

The appearances must be denied if we are to be truly autonomous. The appearance of autonomy must itself be denied. Here again we see the character of the relationship between appearance and reality with respect to theory and its abstractions. The appearance of autonomy is not caused by real autonomy and is not explained by it. What we experience as agents, what makes us wonder about agency in the first place, is mere illusion, not simply misleading but thoroughly deceptive.

This explains, at least in part, why the theorist despises rhetoric.[83] Respect for the art of rhetoric assumes that, as agents, we can control ourselves and that this self-control is, in part, accomplished by reason speaking to and persuading the passions. But, for the theorist, this assumption rests on an illusion. We never really control ourselves; we control

only the environment. Schwartz criticizes the behavioral sciences because "the principles of behavior theory are restricted to operants and reinforcers whose sole relation is the contingency imposed by the environment."[84] But, in the end, he himself does not escape this limitation: "The social conditions in which people live can make them selfish and greedy. . . . But social conditions can be altered and, with them, selfishness and greed."[85]

The social sciences' claim to rule in the human world relies on a view of human passion that reduces the passions in man to mere animal impulse. This reduction is implicit in the stimulus-response account of action and its identification of action with behavior. But human nature is not identical with animal nature with respect to the passions. And the social sciences themselves reveal an implied recognition of this: one of their chief concerns is the restraint of human aggression and this restraint would not be such a problem if human aggression were merely animal. As Niebuhr maintains: "Human nature knows no animal impulse in its pure form. Every biological fact and every animal impulse, however obvious its relation to the world below man, is altered because of its incorporation into the human psyche. . . . Man has difficulty in controlling the vital force of the sex impulse not because nature has endowed it with an impetus beyond the requirements of human life; on the contrary the sex impulse is controlled with difficulty because it is *not* embedded in a total order of natural process in man as in animal life. Each physical impulse, freed of the restraints which hedge it about in nature, can therefore develop imperial tendencies of its own."[86] "This boundless character of human desires is an *unnatural* rather than natural fruit of man's relation to the temporal process on the one hand and to eternity on the other."[87] Aristotle puts it differently in the *Politics*: "Men do not become tyrants to get in out of the cold."

Theory cannot speak to the passions. Character cannot be formed by theory. Such a mistaken view produces men who, "convinced of their own benevolent motives, . . . mistake the exercise of these for moral conduct."[88] Deliberation and rhetoric are, at best, ignored by the social sciences. And this is as it must be for the social sciences can recognize no distinction between persuasion and force. (Seduction is rape.) Ideas can only be stimuli in the environment to which the human organism responds or responses in the organism to external stimuli, either external forces or internal forces. There is no essential difference between persuading a man--addressing him as a free, intelligent being--and physically compelling him, except that the latter is generally more efficient.

Philosophy

Against the background of the deficiencies of theory as an account of the human, I now want to draw out some implications concerning the character of genuine philosophy.[89] I will focus my remarks about genuine philosophy on the issues of abstraction and univocal meaning. Philosophy is the activity that manifests the desire to say everything about everything. This is why the abstraction of theory is so unsatisfying. What philosophy seeks to avoid is, precisely, abstraction. I am not claiming that philosophy can accomplish this task and realize this completeness, but to abandon this task is to abandon philosophy. Even if theory is the best we can do, it is not philosophy.

The notion of an adequate account as a web of univocal meanings falls short of this philosophical ideal. In his Foreword to Owen Barfield's *History in English Words,* W. H. Auden refers to the attempt to create "a language in which, as in algebra, meanings would be unequivocal and misunderstandings impossible" as an "unphilosophical day-dream."[90] Auden explains that "we use words for two quite different purposes; as a code of communication whereby, as individual members of the human race, we can request and supply information necessary to life, and as Speech in the true sense, the medium in which we gratuitously disclose ourselves."[91]

The ideal of univocal meaning is a mathematical-scientific ideal which perhaps reveals the origin of theory in the origin of modern philosophy itself. The requirement of univocal meaning entails the belief that "nothing is really puzzling and that therefore there cannot be anything unclear that we can legitimately want to say. This belief is connected with another, namely, that one speaker does not *communicate* with another unless both understand what is said. In one sense of the word understand', this statement is a tautology; but it becomes questionable when 'understanding' is taken in the Cartesian sense of 'clear and distinct perception' according to which we cannot be said to understand a truth which remains mysterious."[92] Philosophy, on this view, must culminate in solving problems, not in wondering contemplation.

Univocal language is essential to the scientific task of manipulation and control. "Scientific language is technical language. This means that it is like an instrument in the hands of the user. Words are instruments which men use, and of which the user can determine the meaning."[93] Abstraction is the process by which meaning is fully specified, not by revealing the given depth of meaning, but by eliminating undesirable meanings. Univocal meaning serves the interests of technique. This is why theory can promise us salvation.

Endnotes

1. I use the term 'social sciences' in this paper to refer to what others have called the 'behavioral sciences' or the 'human sciences'. In some respects, 'social sciences' is less accurate than either of these other names, but I use it because it remains the designation for a group of sciences within the university. I realize, however, that the methods and the subject-matter that I discuss cut across the boundaries of a variety of disciplines, some of which would not describe themselves as "social" sciences. I also recognize that what I describe here are trends in these sciences but that not all social scientists are in agreement with these trends. Finally, while the theory of evolution might be said to belong to the science of biology, I discuss it because the social sciences claim to base themselves, in large measure, on the theory of evolution.

2. Barry Schwartz, *The Battle for Human Nature: Science, Morality and Moral Life* (New York and London: W.W. Norton and Company, 1986), p.17.

3. Alasdair MacIntyre, *Whose Justice? Which Rationality?* (Notre Dame: University of Notre Dame Press, 1988), p.174.

4. *Ibid,* p.362.

5. *Ibid,* p.174.

6. Schwartz, *Battle for Human Nature*, p.239.

7. W.V.O. Quine, *Word and Object* (Cambridge, Mass: The MIT Press, 1960), p.3.

8. *Ibid*, p.161.

9. Andre Mercier, *Roseau Pensant* (Berne: Peter Lang, 1988), pp.124, 127, 140-142.

10. Edward O. Wilson, *On Human Nature* (Cambridge, Mass: Harvard University Press, 1978), p.7.

11. Quine, *Word and Object*, p.11.

12. MacIntyre, *Whose Justice?* p.333. Hubert L. Dreyfus provides a similar account of the characteristics of 'theory' in his "Holism and Hermeneutics," *Review of Metaphysics* 34 (September 1980): 4-6, 8.

13. This kind of rationality is distinguished from "argument".

14. Paul Churchland, *Matter and Consciousness*, rev. ed. (Cambridge: The MIT Press, 1988), p.164.

15. MacIntyre, *Whose Justice?*, pp.8, 354.

16. T.A. Goudge, *The Ascent of Life* (Toronto: University of Toronto Press, 1961), p.16.

17. *Ibid*, p.64.

18. Quine, *Word and Object*, p.123.

19. James J. Gibson, *The Ecological Approach to Visual Perception* (New Jersey and London: Lawrence Erlbaum Associates, 1986), p.261.

20. *Ibid,* p.249.

21. Quine, *Word and Object*, p.275.

22. *Ibid,* p.161.

23. Churchland, *Matter and Consciousness*, p.160.

24. Quine, *Word and Object*, p.228.

25. Churchland, *Matter and Consciousness*, p.160.

26. Douglas J. Futuyma, *Science on Trial: The Case for Evolution* (New York: Pantheon Books, 1983), p.203.

27. Goudge, *Ascent of Life*, p.96.

28. *Ibid*, pp.196-97, 205.

29. *Ibid*, pp.97-98.

30. *Ibid*, p.36.

31. Churchland, *Matter and Consciousness*, p.173.

32. Robert A. Paul, "The Individual and Society in Biological and Cultural Anthropology," *Cultural Anthropology* 2 (1987): 85.

33. Melvin Konner, *The Tangled Wing: Biological Constraints on the Human Spirit* (New York: Harper and Row, 1982), p.265.

34. *Ibid*, p.268.

35. *Ibid*, p.370.

36. *Ibid*, p.49.

37. *Ibid*, p.130.

38. Gibson, *Ecological Basis*, p.246.

39. Goudge, *Ascent of Life*, p.15.

40. David Novitz, "Metaphor, Derrida and Davidson," *The Journal of Aesthetics* (Winter, 1985): 101.

41. Goudge, *Ascent of Life*, p.138.

42. Churchland, *Matter and Consciousness*, p.31.

43. Gottlob Frege, *Posthumous Writings*, ed. Hans Hermes et al. (Chicago: University of Chicago Press, 1979), p.69. See also, Gottlob Frege, *Collected Papers on Mathematics, Logic and Philosophy*, ed. Brian McGuinness (Oxford: Basil Blackwell, 1984), p.343.

44. Quine, *Word and Object*, p.258.

45. Novitz, "Metaphor," p.106.

46. *Ibid*, p.105.

47. Quine, *Word and Object*, p.22.

48. *Ibid,* p.253.

49. Churchland, *Matter and Consciousness*, pp.59, 61, 66.

50. *Ibid,* p.44.

51. *Ibid*, p.83.

52. Futuyma, *Science on Trial*, p.220. Also see Ulric Neisser, "From Direct Perception to Conceptual Structure," *Concepts and Conceptual Development*, ed. Ulric Neisser (New York: Cambridge University Press, 1987), pp.21-22: categorization at the basic level is by appearances, but scientific categories are ultimately authoritative.

53. Churchland, *Matter and Consciousness*, p.75.

54. *Ibid,* p.15.

55. Goudge, *Ascent of Life*, pp.181-91.

56. *Ibid*, p.24, 113.

57. *Ibid,* pp.60-61.

58. *Ibid*, p.194.

59. Schwartz, *Battle for Human Nature*, p.195.

60. Goudge, *Ascent of Life*, p.119.

61. Paul, "Individual and Society", pp.84-85.

62. Roy D'Andrade, "A Folk Model of the Mind," *Cultural Models in Language and Thought*, ed. Dorothy Holland and Naomi Quinn (Cambridge: Cambridge University Press, 1987), pp.139-40.

63. Schwartz, *Battle for Human Nature*, p.145.

64. Quoted in Schwartz, *Battle for Human Nature*, p.209 (no citation given).

65. See Konner, *Tangled Wing*, pp.133, 180.

66. Gibson, *Ecological Basis*, pp.56-57.

67. *Ibid,* pp.149, 244.

68. *Ibid,* p.249.

69. Quine, *Word and Object*, p.17.

70. Churchland, *Matter and Consciousness*, p.173.

71. Wilson, *Human Nature*, p.1. The social scientist may use the terms 'action' and 'agency', but he is really always describing a passive process. The claim is made, for example, that genes are agents, "the real actors," and that they "possess the power of causation" (Paul, "Individual and Society," 84-85). With respect to human beings, acting is held to be practically synonymous to having consciousness by those who sense the inadequacies of the stimulus-response account (84). But consciousness is not identical with action. It is described as a kind of self-observation and the active dimension of consciousness itself remains to be explained.

72. Gibson, *Ecological Basis*, p.41.

73. Konner, *Tangled Wing*, p.104. See Charles Taylor, "Understanding in Human Science," *Review of Metaphysics* 34 (September 1980): 36, for an explanation of how the focus on 'behavior' in political science is "an attempt to characterize human action in neutral terms" and "to analyze away the language of desirability."

74. Michael Oakeshott, *On Human Conduct* (Oxford: Clarendon Press, 1975), p.53.

75. It is worth noting here that human agency is assumed in the theory of evolution: human choice is the literal level from which the theoretical meaning of natural selection is arrived at through abstraction from the metaphorical meaning (Goudge, *Ascent of Life*, 192, 205). Then this human agency is declared to be a metaphor by the social sciences that take themselves to be in harmony with evolutionary theory.

76. Goudge, *Ascent of Life*, p.137. See also Konner, *Tangled Wing*, p.435; Churchland, *Matter and Consciousness*, p.142; and W.H. Murdy, "Anthropocentrism: A Modern Version," *Science* 187 (2 March 1975): 1169.

77. Wilson, *Human Nature*, p.96.

78. *Ibid*, p.208.

79. Konner, *Tangled Wing*, p.105.

80. Goudge, *Ascent of Life*, p.207.

81. *Ibid*, p.205. See also 144, 209, and Murdy, "Anthropocentrism," p.1171; Futuyma, *Science on Trial*, p.110.

82. Philip Abbott, "Philosophers and the Abortion Question," *Political Theory* 6 (August 1978): 318-19.

83. See, for example, Konner, *Tangled Wing*, pp.168-69; Futuyma, *Science on Trial*, p.178; Gregory Bateson, *Mind and Nature: A Necessary Unity* (New York: Dutton, 1979; reprint ed., Toronto and New York: Bantam Books, 1980), p.150; MacIntyre, *Whose Justice?*, pp.56, 57, 62, 67, 70, 86-87. For MacIntyre, rhetoric is non-rational. The theorist's attitude toward rhetoric also points up the assumptions concerning the relationship between soul and body, or mind and body, that are inherent in the theorist's claims to rule.

84. Schwartz, *Battle for Human Nature*, p.131.

85. *Ibid*, p.312. In contrast, Wolfensberger insists that the goal of the education of the retarded is self-control. See Wolf Wolfensberger, *The Principle of Normalization in Human Services* (Canada: National Institute on Mental Retardation, 1972), pp.63, 139, 146, 151, 162, 163.

86. Reinhold Niebuhr, *The Nature and Destiny of Man*, 2 vols. (New York: Charles Scribner's Sons, 1943), 1:40.

87. *Ibid*, p.253. See also p.179.

88. Oakeshott, *Human Conduct*, p.65. It is worth noting that the notion of theory that I have been discussing gives rise to two opposite conclusions: that there is no true agency or autonomy except through theory and that theory and action are opposites, that true autonomy is only manifested in actions for which one has no "reasons." These two opposite conclusions might be characterized as rationalism and irrationalism; both lead to disastrous consequences in the real world. Charles Taylor, in his "Interpretation and the Sciences of Man," *Review of Metaphysics* 25 (1971), provides an account of the way in which the theoretical and the practical are related in our understanding of ourselves. See especially pp.16, 47-48, 51.

89. I am indebted in some respects to Oakeshott's characterization of philosophy in *Experience and Its Modes*. My own analysis of "abstraction" is, however, quite different from his, although it may be compatible with his.

90. Owen Barfield, *History in English Word* (Lindisfarne Press,1985), p.9.

91. *Ibid*, p.7.

92. Michael B. Foster, *Mystery and Philosophy* (London: SCM Press, 1957), p.17.

93. *Ibid,* p.54. Gian-Carlo Rota writes of the "mathematicizing philosophers' that they mistakenly infer that philosophy would be successful in solving its problems if it dealt with unequivocal statements. Gian-Carlo Rota, "The Pernicious Influence of Mathematics upon Philosophy," *Synthese* 88 (1991): 165-78.