

A SUGGESTION FOR AN INTERDISCIPLINARY APPROACH TO ETHICS

by May Leavenworth

Every ethical theory presupposes some conception of the evaluating self (whether the author acknowledges it or not). Where the theories differ is in the content of this conception and in the role played by this concept in the theory as a whole. In my previous publications in this journal I have used the term "alienated self" to denote a particular conception of the self which, it was my contention, played the role in certain ethical theories of excluding, or at least severely limiting, the use of science in ethics. It has been brought to my attention that I was not sufficiently clear in defining that term. At least, my critic George Wall¹ does not seem to have grasped my meaning. Therefore, one goal of this paper will be to make clearer what I meant by the "alienated self," and how the adoption of a different conception of the self, a type of naturalistic conception, can free ethics from authoritarian restrictions.

AUTONOMY OF ETHICS WITHOUT ISOLATION FROM SCIENCE

Of course, not all naturalistic conceptions of the self can achieve this freedom. The various noncognitive emotivist theories presuppose what I would call a naturalistic self, but they do not achieve the freeing of ethics from restrictions on the use of science. I take George Wall's theory to be in this class. Therefore, my objective will be to formulate a particular naturalistic conception that *will* accomplish this freeing of ethics from authoritarian restrictions, and will open the way to an interdisciplinary approach to ethics.

At this point I wish to clarify what I mean by an interdisciplinary approach. I do not mean by it a subversion of the autonomy of ethics. That is, I am not trying to eliminate ethics as a distinct field of inquiry. What I do want to do is to challenge the *isolation* of ethics from science which has dominated twentieth-century ethical inquiry. I consider this isolation to be as bad for ethics as former attempts by an authoritarian science to reduce ethics to one of the established sciences—to absorb it into, say, biology.

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The latter sort of attempt at subverting the autonomy of ethics may be exemplified by nineteenth-century evolutionists who tried to derive an ethic solely from their limited conception of evolution. For example, there were the various types of trend theorists who would observe a particular trend in evolution and conclude that whatever furthered the trend was good. Because a dominant trend was toward increase in life, some of these evolutionists concluded that whatever leads to an increase in the number of living individuals is good. Present worries concerning overpopulation reduce such a theory to absurdity.

An even more pernicious trend theory was the attempt to justify the organismic theory of the state by reference to a trend in evolution toward more complex organisms made up of specialized parts which contribute to the life of the complex whole. From this observation organismic theorists jumped to the conclusion that the state is one of these complex wholes, an organism with a life of its own, and persons are the subordinate components whose good as individuals and collectively must be subordinated to that of the state. Nazism was a political outgrowth of this theory.

Is it any wonder that twentieth-century philosophers recoiled from these limited naturalist theories and their attempts to subvert the autonomy of ethics! These theories were not merely trying to see how science may be used in the human evaluating process, but were using evolutionary theory to eliminate evaluation. This is the result of assuming that whatever *is* therefore *ought* to be. All one needs to do is to observe an evolutionary trend (what is) and that will tell us what ought to be. On such a view, no separate ethical discipline is necessary because there is no evaluation process for it to study. What these theorists ignored was the fact that man is an ethicizing animal.

It was such limited naturalist theories which provoked the antinaturalism of the twentieth century. The pendulum swung to the opposite extreme. Not only was ethics to maintain its autonomy as a distinct discipline, but it was to be isolated from the sciences. George G. Simpson refers to this reaction as the "counter-naturalistic fallacy."² He writes: "It is undoubtedly illogical to conclude that what *is* therefore *ought* to be. It is, however, equally illogical to make that the basis for a further conclusion that decision as to what ought to be cannot be based on consideration of what is—in other words, that a naturalistic ethics is impossible."³

Simpson, in developing his own naturalistic ethics, makes man's evaluating function, as an individual, central. Contrary to the organismic theorists, he sees the trend in *human* evolution as leading to

increased individualization of persons. And it is human evolution that we are concerned with, since we are attempting to develop an ethics for man (not insects, for example). Man's unique characteristics, such as his highly developed capacity to foresee the consequences of his actions, endow each individual with responsibility. Each individual is, by nature, an evaluator. He not only can observe what *is* but can take a pro or con attitude toward what is and control it within the limits of the laws of nature. Man cannot sprout wings and fly, but he can use his knowledge of the laws of nature to build airplanes if he has a pro attitude toward flying, that is, if he chooses to value flying.

This contemporary evolutionary account of man's nature, therefore, assures the autonomy of ethics, although not its isolation from science. Since man is an evaluator, we need a discipline to study the nature of evaluation. And this need will always be present as long as man continues to be an evaluator. Of course, it is conceivable that man could cease to be an evaluator. Since man's nature makes it possible for him to evaluate any trend he observes in evolution, he can even evaluate the trend that has led to his being an evaluator. He can ask if it is good to evaluate. There is no contradiction in asking such a question, but there would seem to be some absurdity in answering it negatively and choosing never to evaluate again. (See the conclusion of my paper "On Integrating Fact and Value"⁴ for a slightly different expression of this same point.) Simpson's thesis is that man's evolution, up to this point in history, assures him of the permanent possibility of evaluating any described content—for example, any evolutionary trend that may be described by biologists.

As I argued in the paper just referred to, a similar result was achieved by G. E. Moore with his open-question argument. Goodness cannot be equated with any described content, since this would eliminate the possibility of evaluating that content. For example, if the term "good" meant the same thing as the term "pleasure," one could never, logically, evaluate pleasure. Yet, in fact, we are always free to ask: "But *is* pleasure good?" In this way, Moore, like Simpson, assured the permanent possibility of evaluation and therefore the autonomy of ethics. But unlike Simpson, Moore went on to espouse the assumption of the alienated evaluator and, consequently, a version of what Simpson has called the counter-naturalistic fallacy. He rejected all naturalistic ethics.

THE ALIENATED EVALUATING SELF

Let me make clear now what I mean by the "alienated evaluating self," and show how it results in antinaturalistic ethics. This is the

assumption that cuts the evaluator off from causal determination by empirically discoverable factors such as biological and psychological needs and desires, and habits cultivated by cultural training. A philosopher may make this assumption about the self implicitly without acknowledging it, as I believe Moore did, or explicitly as Kant did with his theory of the transcendental ego. Moore made the assumption of the alienated evaluator when he made intrinsic value a property of the evaluated object and declared that all rational evaluators, if they were looking at the same object, would agree on whether that isolated organic unity possessed the nonnatural property of intrinsic goodness. This property is there quite independently of any viewer, and the viewer must only discover it by an act of "seeing" intuitively, an act which is supposedly free from error and which results in values enjoying a privileged position in ethical reasoning. On Moore's view, this cognitive act is also free of determination by culturally conditioned factors that may vary from one individual to another, such as beliefs and biological and psychological needs and desires. No such factors can be given as reasons for calling the object good. Similarly for Kant, the first principle of morality, the principle of universal law in its various formulations, is known by a pure intuitive act, undetermined by these empirically discoverable causal factors. No reasons referring to these characteristics of the evaluator can be given for adopting that principle. Since in neither of the foregoing theories can a reason be given for the normative choice, in terms of the qualities of man studied by the human sciences, the assumption of the alienated evaluator effectively isolates ethics, or at least its first principles, intrinsic values, or end norms, from these sciences. Ethics is to be founded on privileged normative statements which are supposedly known with intuitive certainty and are not alterable by scientific knowledge. This form of ethics may be thought of as analogous to the sense-data theories in epistemology and philosophy of science, which attempt to found science upon privileged statements that purport to describe "the given," which is known with intuitive certainty.

Now, suppose we replace the assumption of the alienated self by the assumption of a naturalistic self. If the evaluating self is a naturalistic one, all of its choices, including acts of norm acceptance, are causally determined by qualities of the evaluator and his environment, such as needs and desires and culturally acquired characteristics such as beliefs, including scientific knowledge. "But how does this replacement alter the isolation of ethics?" you may ask. Ethics is concerned with the reasoning involved in making ethical choices, not with the causes of action. Even if the sciences can help us explain

actions causally, and can show that scientific knowledge has a *causal* relationship to ethical choices, how is this using science in *ethics*, for the latter is concerned with normative *reasoning*, not with the causes of action? Some critics will even claim that if we accept the presupposition of the naturalistic self, we no longer have a rational evaluator responsible for his behavior and capable of giving reasons that justify his actions, including his acts of norm acceptance. Therefore, it will be claimed that we are no better off with a naturalistic self than with the alienated self, since in neither case can we give reasons for our acts of ultimate norm acceptance, and so in both cases we are restricted in our use of scientific knowledge in ethics.

I respect such criticisms insofar as they require that in order for an action to be considered rational there must be a reason for it, and in order for scientific knowledge to play a role in ethics its role in the formulation of reasons for ethical choices must be shown. I think, therefore, that these criticisms would be telling against Wall's type of naturalistic theory, which says that true beliefs may be a *cause* of our accepting particular end norms, but that they play no *logical* role in such acceptance. However, I think that the requirements voiced in these criticisms can be met by a different type of naturalistic ethic—one that adopts the thesis that giving reasons for an action is a species of ordinary causal explanation. If this is so, it might not only be the case that scientific knowledge *causes* certain norm acceptances, but that these causes are also reasons for these norm-acceptance acts.

I think that Donald Davidson has given a good defense of the thesis that reasons are causes in his article "Actions, Reasons, and Causes,"⁵ and in the following discussion I accept his analysis and defense. Davidson gives the following definition of a primary reason why an agent performed an action: "*R* is a primary reason why an agent performed the action *A* under the description *d* only if *R* consists of a pro attitude of the agent toward actions with a certain property, and a belief of the agent that *A*, under the description *d*, has that property."⁶ He then goes on to defend the thesis that the primary reason for an action is its cause. I refer the reader to the article for this defense. What I am concerned with here are certain implications that may be drawn from his conclusion. Davidson points out that "corresponding to the belief and attitude of a primary reason for an action, we can always construct (with a little ingenuity) the premises of a syllogism."⁷ He goes on to point out, quite correctly, that the conclusion of this syllogism shows only that the action has some desirability characteristic, not that the action was desirable, worth doing, reasonable, etc. That is, the syllogism constructed from

a primary reason should not be seen as corresponding to a piece of practical reasoning. It does show that, from the agent's point of view, there was, when he acted, something to be said for the action; and in this somewhat anemic sense every primary reason justifies.

Now suppose that the act for which our agent is asked to give a reason is an act of norm acceptance, that is, an act of approving and accepting or disapproving and rejecting acts of a certain type. And let us say that the agent believed the act of norm acceptance was justified, not in the anemic sense in which "something was to be said for the act," but in the fuller sense in which, from the agent's point of view, it was reasonable, all things considered. Can anything in the form of Davidson's primary reason be given for such an act? Or can a reason involving a full justification be given only for *some* norm-acceptance acts but not for other privileged ones, which must be taken as first principles or end norms or intrinsic values for which no reasons can be given?

RATIONAL EVALUATION: ANALOGUE FROM THE SCIENCES

In answer to this question, one is required to give an account of the rational evaluative process. The question before us is, Is the nature of this process such that it must lead to the acceptance of intuited end norms, which we can give no reason for accepting?

In response to this query, I turn to the account of evaluation offered by Israel Scheffler in his article "On Justification and Commitment."⁸ In that article Scheffler draws an analogy between moral evaluation and evaluation in the sciences. His thesis is that the sciences are concerned with evaluating and regulating acts in a rational, objective manner, just as is the case with rational moral evaluation, the only difference being that in the sciences the acts being evaluated are acts of sentence acceptance. Consequently, we can learn something about moral evaluation if we look first at scientific evaluation.

Scheffler's account of evaluation in the sciences is carried out in greater detail in his more recent publication *Science and Subjectivity*.⁹ In this book Scheffler rejects the sense-data theories in the philosophy of science which attempt to found science on a privileged class of statements such as protocol statements or confirmation statements which are held to be known with intuitive certainty and are therefore exempt from alteration or withdrawal from the body of accepted sentences. Scheffler holds, on the contrary, that there are no such privileged sentences. Even observation sentences are subject to the possibility of alteration or withdrawal if required by the joint demands of consistency and maximization of initial credibility.

I presume that the notion of consistency here will be clear to all

readers, but perhaps a word of explanation is in order for the term "initial credibility." Consistency is not a sufficient criterion for acceptance of a system of sentences. Initial credibility is the additional element required. Scheffler uses this term, which he borrowed from Nelson Goodman, to refer to underived credibility or values which statements have for us independently of their consistency with other statements. "How are these values of statements compatible with lack of certainty to be conceived?" he asks, and then explains: "They may be thought of as representing our varied inclinations to affirm given statements as true or assert them as scientifically acceptable."¹⁰ Further on he agrees that "such inclinations as to statements are, surely, tempered by habits of individuation and classification acquired through the social process of learning our particular vocabulary of *terms*. In learning the term 'horse,' for example, I have incorporated selective habits of applying and withholding the term; these habits, operating upon what is before me, incline me to a greater or lesser degree to affirm the statement 'There's a horse.'"¹¹

So the goal of the scientist in evaluating acts of sentence acceptance will be to maximize the credibility of the system as a whole, where this credibility will be tempered by culturally acquired habits. I may exemplify this process of maximizing the credibility of a system as a whole as follows: Suppose a crucial experiment has lowered drastically the initial credibility of a particular sentence within the system. The decision then as to whether to reject that sentence and perform the general reshuffling within the system as necessary to maintain consistency will be guided by the requirement of maintaining maximum credibility of the system as a whole. It should be noted that "initial credibility" represents only an inclination to accept. Just because a *particular* sentence has a high or low initial credibility, it does not follow that we will automatically accept or reject it.

RATIONAL MORAL EVALUATION

I refer the reader to the references cited for the details of this theory in the philosophy of science, but shall turn now to the analogy with rational moral evaluation. In making this transition we must now talk about initial commitment to acts, rather than initial credibility of sentences. We may make this transition by conceiving of the credibility of sentences in the cognitive realm as deriving from our commitments to perform acts of sentence acceptance. A highly credible sentence is one that we are strongly committed to accepting. So the goal of the scientist is actually to maximize commitment to a certain class of acts—acts of sentence acceptance. Then our goal in moral evaluation will be the maximization of initial act commitments in general.

Here, as in the special case of scientific evaluation, there will be no privileged class of act commitments. That is, there will be no commitment to end values or first principles claimed to be known with intuitive certainty and so exempt from revision or withdrawal from our system of acceptable acts.

We may give the following explanation of initial commitments paralleling Scheffler's explanation of initial credibility just quoted: How are these values of *acts*, compatible with lack of certainty, to be conceived? They may be thought of as representing our varied inclinations to approve given acts as right or assert them as morally acceptable. And, of course, pursuing the parallel further, our inclinations to approve or disapprove of particular acts are tempered by habits of individuation and classification acquired through the social process of learning our particular vocabulary of *moral terms*. We learn to classify certain acts as right or acceptable, others as wrong or unacceptable, just as we learn to classify certain referential sentences as acceptable or unacceptable.

Now, it may be thought that this makes moral evaluation too subjective and hopelessly relative to culture. To evaluate this criticism, let us look at a statement by Scheffler on the ideal of objectivity in science: "To propound one's beliefs in a scientific spirit is to acknowledge that they may turn out wrong under continued examination, that they may fail to sustain themselves critically in an enlarged experience. It is, in effect, to conceive one's self of the here and now as linked through potential converse with a community of others, whose differences of location or opinion yet allow a common discourse and access to a shared world."¹² I think a parallel statement may be made concerning the propounding of one's beliefs and values in the spirit of a rational evaluator. Now it will be asked how differences of location and opinion allow a common discourse and access to a shared world in the case of moral evaluation. In the case of science we make observations and formulate observation statements which refer to this shared world. Our initial commitments to sentence acceptances will be guided by these observations. Crucial experiments, for example, may drastically alter our commitments to certain sentences. But what role can observations play in moral evaluations? What would be the correlate of crucial experiments, for example? Scheffler answers this question as follows: "New social conditions, corresponding in a way to crucial experiments, may radically alter the initial commitments to acts of various kinds."¹³ And if new social conditions can alter initial commitments, so can new knowledge of social conditions of which one was previously not aware. So here would be an indication of the role to be played in moral evaluation by scientific observations, particularly those of the social sciences.

An example of this might be a situation in which a person's former initial commitment to rejection of artificial methods of contraception was altered by observation of the human misery caused by overpopulation. But of course no single observation of a new social condition with its consequent alteration in commitment to a particular act can force a change in one's system of act acceptances as a whole. The same criteria of consistency and maximum commitment to the system of approved acts *as a whole* will guide our choice of act acceptances as was the case with sentence acceptances. Scheffler writes: "Rationality, at any event, does not create commitments but only sets up communication among them, so that we may be guided by a controlled totality, rather than by any one gone wild."¹⁴ I would interpret the theories involving commitments to fixed end norms or first principles as being guided by one commitment gone wild, in contrast to Scheffler's analysis of ethical reasoning in which any commitment is subject to revision or withdrawal, in accordance with the rational criteria of consistency and maximization of initial commitment within a system as a whole.

Still we have not solved the problem of subjectivity. What are the possibilities of achieving agreement between individuals with radically different initial commitments? Such commitments are created by human needs, desires, habits, and observations, all of which are channeled culturally. These are the raw data with which reason works, making changes as necessary to maintain consistency and maximum initial commitment. As long as these commitments are the same in different individuals, agreement may be achieved by the rational processes described by Scheffler. But suppose individuals differ, at any time *t*, in their strongest initial commitments, which is entirely possible, given the way in which commitments are created. Scheffler admits frankly that this may occur, but it may just as well occur in the cognitive realm as in the moral. He says: "I fail to see, however, what Providence guarantees universal agreement in any domain."¹⁵ Yet he is optimistic about the possibility of overcoming the subjectivity. He writes:

Furthermore, there is a practical factor which offsets the theoretical subjectivity in question. We cannot determine with finality at any given time, regarding any given disagreement, that we have exhausted rational means of adjudication and gotten to the rock bottom of all relevant initial commitments. Theoretically, we may always continue to expand our attention, originally focussed on the circumscribed area of conflict, so that it takes in more and more of the totality of our acts. We may hope to encounter some area of shared commitment, or systematic centrality, such that the original disagreement will be overshadowed. Thus, subjectivity, in the sense indicated, is compatible with a constant practical relevance of shared search for areas of agreement.¹⁶

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I would add to this that I fail to see what Providence guarantees ultimate *disagreement* on the initial commitments. If there are any basic human needs and desires, biological, psychological, cultural, common to all men everywhere, there is hope for discovering areas of agreement. And since no initial commitment is fixed and unalterable, but all are subject to change by such things as changes in social conditions, including new knowledge of those conditions, the possibility remains open that these changes may be in the direction of fuller agreement.

Now I think an answer can be given to our earlier question, Is the nature of the rational evaluative process such that it must lead to the acceptance of intuited end norms, which we can give no reason for accepting? The answer is, No. There are no privileged initial commitments; all such *inclinations* to act acceptance are subject to review and possible rejection (though of course some commitments will be stronger than others). Consequently, a reason can always be given for accepting or rejecting acts of any type. This reason can always be put in the form of a primary reason for an action as outlined by Davidson, and would always be of the following form: the agent had a pro attitude toward maximizing his initial commitments, and he believed that accepting (or rejecting as the case may be) acts of type *A* and performing, for the sake of consistency, any necessary reshuffling within his system of acceptable acts would maximize his initial commitments. And, of course, since I accept Davidson's arguments that a primary reason for an action is its cause, this pro attitude toward maximizing initial commitments, together with the belief that this is the way to do it, was the cause of this norm-acceptance act. (A norm-acceptance act is just an act of accepting or rejecting, as the case may be, acts of a certain type.) Furthermore, I hold that the practical syllogism corresponding to this special kind of primary reason would show, not just that this norm-acceptance act had a desirability characteristic, but that, from the agent's point of view, it was desirable, all things considered.

A NATURALISTIC THEORY OF THE SELF

Since this account of the evaluating self and its evaluating acts does not cut the evaluator off from causal determination by empirically discoverable factors such as desires and beliefs, it is a naturalistic theory of the self. George Wall's theory of the evaluating self is also naturalistic in this sense. However, unlike my theory it sets limits on the use of science in ethics. He espouses the view that ethical reasoning must start with *fixed* end norms as premises which have a privileged place in one's system of values, that all other commitments must be made to conform to these fixed premises, and that

no reasons can be given for accepting or rejecting them. It is a view in which one's system of act acceptances is guided by one commitment gone wild rather than by a controlled totality. Up to this point, Wall's theory is similar to those that assume the alienated self. Where it differs is that, in Wall's theory, though the agent cannot give a reason for his end-norm-acceptance acts, they are causally determined, and the causes may include factual beliefs.

Considering Wall's example of the egoist, Wall would say that the egoist's acceptance of the end norm of maximizing his own good at the expense of the survival of society or mankind is determined causally, but that the egoist cannot give a logical reason for accepting it, nor could there be any relevant facts that would require him *logically* to abandon it in the future, although a change in conditions, including beliefs, might *cause* him to abandon it.

Wall considers the *causal* relationship between true beliefs and end-norm-acceptance acts to be "broadly rational," even though the true beliefs form no part of reasons that can be given for the acceptances. But I fail to see how this relationship is at all rational. At least an essential part of what it means to be rational is to be able to give a reason for one's *acts*. One may not be able to give reasons for *inclinations*, but actual acts, including norm-acceptance acts, are not rational unless a reason can be given for them. Of course, there may be situations in which an agent cannot give reasons for his norm acceptances. For example, he may be going through a period of radical change and be temporarily confused. But in such cases I would not call the acts fully rational. They are not reasonable, all things considered. The account of evaluation given throughout this paper is meant as an account of *rational* evaluation, and I disagree with Wall's claim that acts of accepting "end norms," as he describes them, are even "broadly rational."

One point on which my theory differs from Wall's is in the thesis that reasons are causes. Of course, that does not mean that all causes are reasons. To draw this conclusion would be to commit the fallacy of affirming the consequent. Only a small subclass of causes are also reasons. A second point on which my theory differs is my contention that, in order for an act to be rational, its cause must belong to that subclass of causes that are also reasons. The cause must include a pro attitude toward acts of a certain type and a belief that this act is of that type. Finally, for an act of norm acceptance to be classified, not merely as having a desirability characteristic, but as reasonable, all things considered, the pro attitude must be toward maximizing commitment, and the belief must be that this act maximizes commitment at the present time.

For example, in order for Wall's egoist to be a rational evaluator,

on my account of rational evaluation, he would have to be able to give a logical reason for his *acceptance* of acts that promote his own greatest good even at the expense of survival of the society or of mankind. He would have to be able to show that his commitment to this egoist principle was consistent with the *system* which maximizes his commitments *as a whole* at the present time. He has a pro attitude toward maximizing commitment, and he believes that the system containing the egoist principle as stated accomplishes this maximization. His acceptance of the principle is not merely caused, as Wall claims, but he can also give a logical reason for that acceptance.

It should be noted that the egoist's *initial commitment* to the egoist principle may be caused without his being able to give a reason for it, since an initial commitment is only an *inclination* to accept and not an actual acceptance. Inclinations are caused, and one may not be able to give a reason for the inclination. Its cause need not belong to the class of causes that are also reasons. But the decision *actually to accept* the egoist principle within the system as a whole must have a reason if it is to be rational. And the reason must be (following Davidson's analysis of a primary reason) a pro attitude, in this case toward maximizing commitment, and a belief, in this case that the system containing the egoist principle accomplishes such maximization. But it must be remembered that, at some future time, a change in social conditions or beliefs concerning social conditions may cause a change in one or more initial commitments, which could *logically* require a change in the egoist principle in order to maintain maximum commitment to the system as a whole. So factual beliefs not only *cause* changes in *initial commitments*, but provide *logical* grounds for the possible rejection of *any* norms previously *accepted*.

Now one might ask, "Isn't the practical syllogism corresponding to the primary reason for an act of norm acceptance like all other primary reasons in showing only that the act had a desirability characteristic, since one can always ask, Why maximize commitment?" Is not the pro attitude toward this only one among many pro attitudes? I think Scheffler has given a good answer to this challenge in the following passage: "I may be asked how I justify the maximization of commitment. My answer can only be that I am trying to describe what I take to be the meaning of rational justification. Only a thorough testing of the present proposal will reveal whether or not it is accurate. I cannot further justify the maximization of commitment within my analysis, for on my account such justification is meaningless."¹⁷ What distinguishes the pro attitude toward maximizing commitment from other pro attitudes is its role in evaluating and justifying rationally any of these other attitudes. It plays a central

role in the very act of human evaluation as described by Scheffler and myself. This, then, concludes my attempt to give a naturalistic description of the human evaluating act—the act that makes man an evaluating animal.

NOTES

1. George B. Wall, "A Fact Is a Fact Is a Fact," *Zygon* 8 (1973): 128–32.
2. George G. Simpson, "Naturalistic Ethics and the Social Sciences," *American Psychologist* (1966), pp. 27–36; reprinted in *Man and Nature*, ed. Ronald Munson (New York: Dell Publishing Co., 1971), p. 361.
3. *Ibid.*, p. 360.
4. May Leavenworth, "On Integrating Fact and Value," *Zygon* 4 (1969): 42.
5. Donald Davidson, "Actions, Reasons, and Causes," *Journal of Philosophy* 60 (1963): 685–700.
6. *Ibid.*, p. 687.
7. *Ibid.*, p. 690.
8. Israel Scheffler, "On Justification and Commitment," *Journal of Philosophy* 51 (1954): 180–90.
9. Israel Scheffler, *Science and Subjectivity* (Indianapolis: Bobbs-Merrill Co., 1967).
10. *Ibid.*, p. 116.
11. *Ibid.*, p. 123.
12. *Ibid.*, p. 1.
13. "On Justification and Commitment," p. 189.
14. *Ibid.*, pp. 189–90.
15. *Ibid.*, p. 189.
16. *Ibid.*, p. 190.
17. *Ibid.*, p. 189.