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# ETHICS AS A SCIENCE: GOING FROM "IS" TO "OUGHT"

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## Editorial Note

A scientifically informed technology has contributed to a new set of ethical concerns. Some issues involve abortion, euthanasia, organ transplant, population control, environmental planning and the impact of scientific thought on humanity's place in the universe. Both the product and method of science tends to direct us to specific questions involving ethical dilemmas requiring responsible decisions.

Recent scientific advances not only clarify "what is" (the traditional domain of science) but also suggest "what ought to be" (an area usually left to other educational and cultural experiences). Should science educators add to the classical role of teaching "what is," and how the scientific method is used to make this assessment, by incorporating into their instruction the impact of scientific findings on the ethical concerns of society? Some science educators support this view, others do not.

It is not the intent of this article to either endorse or discourage the teaching of ethics in the science classroom. The intent of this article is to illustrate that such decisions should be made only after a great deal of thought and planning, and some study of the discipline of ethics.

The following article introduces one school of thought in regard to the teaching of ethics. The author has written numerous books on the teaching of ethics to children which have received favorable reviews from a number of scholarly associations. Portions of this paper were presented at The School Science and Mathematics Association Convention in Kansas City on Nov. 1, 1979.

## Introduction

Two beliefs which serve to prevent teaching, defining, or progress in ethics and morality are:

1. That we cannot derive an "ought" from an "is." We supposedly cannot derive value statements from factual statements.
2. That we cannot define ethical terms in terms of non-ethical terms (naturalistic fallacy).

But can we derive an "ought" from an "is?" Does it ever make sense to do so? Let's take a case as it may arise. It is cold outside. I know that a chill may bring on a cold and I wish to avoid catching cold. I then conclude "I ought to wear my coat." When I put on my coat, I derive an ought from an is.

An alternative formulation is, "If you don't want to catch cold, put on your coat." "Ought" can imply an if-then statement. If-then statements are used throughout science. "If you do x, then y will follow."

"Ought" says "There are reasons." "Is" says "This is the case." A reason is not a fact. The terms mean different things. Who would want to say that they mean the same things? But we can say that as ordinary language is used, we first collect facts, then decide what we ought to do

in order to achieve our goals. There is no need to reduce what is said here to a formal, logical structure or even to mathematics. The "is-ought" problem only arises if we try to fit ordinary language into a straight jacket logic.

### Substitutions

We cannot reduce "is" to "ought." The words mean different things. Some philosophers have been surprised by that. It need not be surprising. We cannot reduce "is" to "if-then," or "It is cold" to "Don't catch cold."

"Ought" is an open context term like other ethical terms, that is, it can mean many different things. It may mean:

"I want you to do x."

"If you want x you must do y."

"You will like x."

"I suggest that you do x."

"I approve of x."

"I want you to do x."

Now, certainly, we cannot define "ought" in terms of any *one* substitution instance. Its logic is to refer to all such instances. One use cannot be taken for all uses. If the naturalistic fallacy is just pointing out this fact that one use or meaning of a word is not all its uses, then we can agree with it. "Good" is not the same as examples of good. But "good" or "ought" can be defined as vague words which have many substitution instances. This would be a scientific, factual description of ethical terms.

Next, we may look at the substitution instances. By "ought" we may mean:

"You *should* do it."

"It is your *duty*."

"You have an *obligation* to do it."

"It is your *responsibility*."

These instances merely substitute synonyms for "ought." They are circular instances or definitions. No new knowledge is gained. Rather, less knowledge is gained because we seem to be saying something new but aren't.

### Ethical Theory

Many have interpreted the naturalistic fallacy as asserting that we can only describe ethical terms by means of other ethical terms. But to do so is to give only circular definitions! Because of the absurdity of this, not only can we define ethical terms in non-ethical or naturalistic terms, but we *must* do so if we wish to avoid circularity.

The philosopher of science, Michael Scriven, wrote (1975), "There is an objectivity of fact . . . on which ethics must be built."

Richard Brant in *Ethical Theory* (1959) wrote:

Naturalists hold that an ethical statement — that is, a statement with words like “wrong” or “undesirable” — is exactly identical in meaning with some other statement in which ethical words do not occur, and which everyone will recognize as a statement that can be confirmed or tested by the methods of science, by appeal to experience.

Now I do not wish to claim that I have correctly interpreted Hume’s statements about “is-ought” or G.E. Moore’s statements about the naturalistic fallacy. I have not. I wanted rather to suggest and deal with some misinterpretations which block inquiry into the significant area of moral education.

Moore, in *Principia Ethica*, says that “good” is a simple, non-natural, intrinsic property. If he means by this that “good” is an open-context term for which a number of instances can be substituted, it seems intelligible enough. If he means anything else, I would rather not write about the subject. It appears to be metaphysical. “Intrinsic value” seems to be a misuse of the logic of ethical terms. It makes no sense to say, “One just has a duty in itself,” or “X is just good in itself.”

But now it appears that just what Hume and Moore are saying on these issues is not too clear. Their views are given contradictory interpretations. The “naturalistic fallacy” ought not to be regarded as a fallacy at all at this point. The raging controversy over Hume’s “is-ought” views may be found in numerous articles, such as *Hume* (1966) (V. Chappell, editor). We may return the issue to an analysis of the ordinary language uses of “is” and “ought.” We may begin to speak again; we may bring ethics back into the classroom as a factual subject for inquiry.

### Ethics in the Classroom

The ordinary language or language analysis approach to ethics allows

- a) ethics to become a science of the description of ethical terms, and
- b) resolves the problem of how “ought” may reduce to “is” and how “is” may lead to “ought.”

John Magee (1971) wrote:

The merit of ordinary language analysis is that it can use the insights of . . . various schools as they are embodied in our linguistic usage. It keeps us from opting for implausible claims that outrage the wisdom embodied in our common speech and create a forum for the various trends of moral discussion. (p. 166)

A few of the thoughts of writers on education who support going from “is” to “ought” are as follows:

- a) It would make no sense to speak of duty or other value terms without being able to give factual reasons for them and deal with interests and consequences. (P. Foot, 1958; Jack Frankel, 1977; J. Gribble 1969)

- b) Moral conflicts are resolvable by factual knowledge and inquiry. (M. Lipman, *et al.*, 1977; J. Gribble, 1969; J. Magee, 1971)
- c) Moral discourse is critical, rational thinking. (J. Gribble, 1969; M. Lipman, *et al.*, 1977)
- d) Ethics can be a science. (H. Aiken, 1955) Aiken states about W. Ross, C. Broad, J. Dewey, R. Perry and others that "all of these important writers conceived the primary aim of moral philosophy to be that of reducing ethics to a science." (p. 45)

*Values Education Sourcebook* (1976) summarizes the existing approaches to values education. The authors state:

Analysis is the approach to values education advocated by most of today's leading social science educators, and "The purpose of the analysis approach is to help students use logical thinking and scientific investigation procedures in dealing with value issues. (p. 55)

Michael Scriven (1966) writes:

Value judgments do not spring full-fledged from *the facts about the entity being evaluated*, but that does not show they are not empirical. They require a careful combination of those facts with other *facts about the needs, wants, and ideals of the valuing agents*. (p. 5)

In various other works Scriven shows how value is based on facts.

Notoriously, naturalists and utilitarians argue that the naturalistic fallacy is not a fallacy at all. And there is increasing recognition that the naturalistic fallacy is not a fallacy. (J. Giarelli, 1976 p. 353). Some such statements follow:

W.K. Frankena (1970) regards the naturalistic fallacy as really just a "definist fallacy," the fallacy of defining anything in terms of anything else. This view relates to G.E. Moore's statement in *Principia Ethica* that "Everything is what it is and not another thing."

On this view we can define ethical terms in terms of non-ethical terms, just as we can define a naturalistic term. The insight is to see that, in effect, all definitions are metaphorical — they define one thing in terms of another.

James Giarelli (1976) pointed out that for G.E. Moore "normative statements are reducible to 'factual' . . . statements," and that we *can* "derive or define evaluative statements from or with factual statements." (p. 353)

If ethics is a science and if values can be reduced to facts and descriptive terms, then we can be as comfortable teaching values and ethics as we are teaching facts and giving descriptions. Much depends upon our understanding the connections between descriptive and value terms.

### **The Language of Ethics**

A brief analysis of the language of ethics may clarify the "is-ought" problem (W. Shibles, 1971 and 1978). In describing how ethical terms



are used and what they mean, it may be observed that they are basically open-context terms with a loosely limited range of substitution instances. "Bad" may mean "illegal," "disliked," "untraditional," or "against an authority." So in describing the actual meanings of ethical terms we see that ethical terms are based on descriptive and factual terms. In saying something is "bad" we do not yet know what is meant, or which meaning is intended. Thus, nothing is bad in itself. We do not know which meaning of "bad in itself" is meant. It is a misuse of ethical terms to say "X" is bad in itself."

Many of these substitution instances are, then, based on informal logical fallacies. It is a fallacy to say "X is bad" because the majority thinks so or because it is contrary to authority. It is also a fallacy of circularity to define an ethical term in terms of another ethical term. For example, we may define "good" as "duty," "right," or "benevolence." The situation is reversed. It is not the naturalistic fallacy (as popularly interpreted) which is the problem, but rather the problem of defining ethical terms in terms of other ethical terms. It is the problem of circular definition, as we stated earlier.

The philosopher, Ewing, defined "good" as "You *ought* to have a *favorable* attitude toward it." But "favorable" is a synonym of "good," and "ought" is merely another value term. This is like saying: "Rich people are wealthy," "Death is fatal," or "Sick people do not feel good." Lewis Carroll in *Sylvie and Bruno* wrote, "Isn't the day as short as it's long? I mean isn't it the same length?"

The psychologist, Lawrence Kohlberg, who has a prevalent view of teaching morals to children, defines ethics and morals circularly when he writes:

We know it is sometimes right to kill, because it is sometimes just. (Ch. 1, p. 70)

The most fundamental values of a society are termed moral. (Ch. 1, p. 67)

Our mature stages of judgment are more moral . . . than less mature stages. (1971 p. 215)

To say "Killing is 'wrong' because we do not have a 'right' to kill," is also circular and leads to a regress of ethical terms. To end the regress of open-context ethical terms we must eventually define them in terms of concrete, factual statements and events. "Lying is wrong," ultimately reduces to statements such as, "I do not want or like lying and it brings about undesirable consequences." Likes, wants and desires are naturalistic, factual and objective things. The reduction, however, is to concrete ordinary language contexts, rather than to a naive empiricism. This is merely to adopt an ordinary language approach in this analysis. It is not that ethical terms can be reduced to factual terms, they *must* be so reduced if they are to make any sense.

In themselves, ethical terms are merely obscure open-context terms. There is not a realm of ethics versus a realm of science. Ethics is rather a realm of vague terms. And there can be a science of describing how ethical terms work and how they are misused.

The more we know of consequences, cause and effect, emotions, and are able to inquire, the more we will be able to bring about our informed

wants and goals. Moral conflict is a matter of avoiding conflict, contradiction, and being able to bring about our wants and goals. The conclusion is that the more we know, the more ethical we can be. It would be unethical to be neurotic or dogmatic in the sense that they would block our effectively or intelligently bringing about our wants and likes. It may be pointed out that social concern may be included among the desires. On this view, ethics is based on science, knowledge and inquiry.

### **Kohlberg on the "Is-Ought" Problem**

Lawrence Kohlberg gives an extensive analysis in order to attempt to avoid what he conceives to be the naturalistic fallacy, or reducing "ought" to "is." He wrote:

Science cannot prove or justify a morality because the rules of scientific discourse are not the rules of moral discourse. (1971 p. 223)

I knew that science could teach me nothing as to what virtue is. (Ch. 1, p. 57)

This view has already been argued against. His method of attempting to "commit the naturalistic fallacy and get away with it" is by attempting to show that moral development follows a "natural" development through fixed universal moral stages. Moral development empirically goes through these moral stages: Moral thinking (the "ought") is based on behavioral evidence of the moral stages which exist (the "is.") The "ought" is then based on the "is." This also informs his way of attempting to avoid indoctrination. He wrote:

The stimulation of development is the only ethically acceptable form of moral education. (1971, p. 153)

What moral judgment ought to be must rest on an adequate conception of what it is. (1971, p. 222)

Although, for Kohlberg, moral terms can only be reduced to moral terms, he gives a number of statements which suggest that moral terms can be reduced to scientific and factual terms. A few of such statements are:

Moral judgment is primarily a function of rational operations. (Ch. 6, p. 15)

According to Dr. Christensen, and I agree with him, the chief contribution of science to moral questions is: a) to clarify alternatives, and b) to determine cause-effect relationships so that consequences of choice patterns will be evident. (Ch. 13)

### **Summary**

In terms of the arguments presented in this paper it would appear that ethical terms can and must, for intelligibility, be reduced to factual descriptive terms. Books on ethics for young people are quite justified in stressing knowledge of consequences, wants, likes, emotions, cause-effect and rational inquiry as the basis of ethics. Ethics is a science involving the description and clarification of ethical (moral, value) terms.

## Materials for Use

Materials for use in teaching which conform to this approach are:

"Teaching Young People to be Critical Series" by Warren Shibles, Whitewater, WI: The Language Press 1978. Books in the series are:

1. *Ethics for Children*
2. *Good and Bad are Funny Things: A Rhyming Book*
3. *Emotion: A Critical Analysis for Young People*
4. *Humor: A Critical Analysis for Young People*
5. *Time: A Critical Analysis for Children*

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Strange is our situation here upon the earth. Each of us comes for a short visit, not knowing why, yet sometimes seeming to divine a purpose.

— Albert Einstein

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