In examining the role of values in the curriculum, the author raises four problems: (1) Can one justify trying to change student values at all? (2) Can one justify one particular set of values? (3) Can one demonstrate the occurrence of change in student values due to the educational factor? and (4) Can one measure student values? The goal, in value matters, is the discovery of the solution to problems of selection and rejection that require professional expertise and demonstration of the validity of these solutions. If a value is held and if it cannot be shown to be a derived value based on faulty reasoning or false premises or conflicting with other sound values, then acting to promote this value is justified. In teaching values a teacher should teach as facts only those assertions which can be objectively established. Further, one should teach the development of skills with which students may arrive at and test conclusions, the idea that certain established conclusions can be reassessed in the light of new evidence and later be proved wrong, and the development of both cognitive and affective dimensions. In measuring the change in student values much research is needed to develop an adequate instrument. The author still considers the Hartshorne and May instrument, published in 1928, as the best for determining and measuring values. (Author/DE)
STUDENT VALUES
AS EDUCATIONAL OBJECTIVES

Michael Scriven
Indiana University

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Irving Morrissett, Executive Director
Purdue University, Lafayette, Indiana

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FOREWORD

The research for, and writing of, this paper was supported in part by a contract of the United States Office of Education with Purdue University for the Social Science Education Consortium.

The paper is one of several done under this contract, which develop a particular approach to the very difficult problem of handling values in the educational process, and particularly in the public schools. The first report, "Morality", is a position paper on the foundations of ethics and the methodological basis for moral value judgments. The second, "Value Claims in the Social Sciences", brings that position to bear on the social sciences. This paper, the third, deals with the role of values in the curriculum. Further work is planned on specific methods of handling values in the curriculum and in the classroom.

This paper is also being published in PROCEEDINGS OF THE 1965 INVITATIONAL CONFERENCE ON TESTING PROBLEMS (Educational Testing Service, Princeton, New Jersey).

Michael Scriven

March, 1966
STUDENT VALUES AS EDUCATIONAL OBJECTIVES*

Michael Scriven

Introduction

Treatment of this topic raises four problems, two in the philosophy of education and two in its methodology.

1. Can one justify trying to change student values at all? In particular, would this make education propaganda, or would it violate some inviolable facts/value distinction?

2. Can one justify one particular set of values towards which one should direct one's students? In particular, what non-trivial values could legitimately be advocated in the secular state schools of a pluralistic democracy?

3. Can one ever demonstrate the occurrence of changes in student values due to the educational factor? In particular, how can one handle the control group problem (a) within the constraints of social taboos on withholding education, (b) in face of the relevant analog of the Hawthorne effect, (c) given the long time-scale probably involved in a significant value change with the consequent interference from many independent maturational variables.

4. Even more fundamentally, can one really measure student values in any important sense? In particular, can one get past the superficiality of catalogs of announced values, and past the dubious inferences from projective tests, to a reliable construct of the response-tendencies that would dominate behavior in a real, conflictual, value-loaded situation?

*Expanded version of paper given at ETS Invitational Conference, New York City, Fall 1965.*
Each of these questions is of very great importance and difficulty as is attested by the vast magnitude of the relevant literature and the marked triviality of much of it. Fortunately, the limitations of length on this paper absolutely guarantee its superficiality and thereby mask its author's shortcomings. In view of the topic allotted to my distinguished colleague on the panel at this session, I shall concentrate on the two philosophical questions, although I shall say a word or two about the others. All I can really do is to state my view of the present research situation in these fields, with a brevity that will surely seem dogmatic, but with a configuration of reasons that you may find interesting. In the background of my thinking, of course, is the vast sea of the values literature, particularly the strong current containing Philip Jacob's book, Changing Values in College, and the discussions of it, especially the one by Barton together with his definitive elaboration of the general issues in his paper, "Measuring the Values of Individuals"; and of course the existing armory of tests, which we might describe as the Fifty Mental Measurements Yearbook plus appropriate (imaginary) supplements. On the philosophical side, I am thinking not only of what might be called the 100 Years War in ethics, but of the long history of debates about the role of moral education in the American school system and most recently the attempts by Hunt and Metcalf, Don Oliver, the World War Fund, the Ethical Culture schools and others to justify or implement such practices. One could hardly do justice to even one of these projects in a few minutes of comment, and so I shall do an injustice to the subject as a whole instead.

My answers to these four questions require a one-sentence preamble. (However, it may be the most complex one-sentence preamble you have ever encountered.) We must distinguish values in the very widest sense,
which includes standards of any kind referring to any field (preferential values), from moral (normative) values and these in turn from personal standards of behavior and thought (prudential and conventional values); and we must distinguish between the widest spread of the term "value," which includes every item-preference, and the sense in which it refers to more abstract criteria (honesty, etc.); and we must distinguish objective values (if any) from (a) falsely professed values, (b) truly professed values, (c) truly professed and actually operative values, and (d) implicit values*; and we must distinguish values in the sense of external goals from values in the sense of internal sets or attitudes, and values as individual properties from values as group properties.

The reason we must make these distinctions is not that they have any effect on the answers, because they do not, but simply that if we don't, someone will be sure that by overlooking them we have invalidated our arguments. The answers themselves also require only one sentence, and if only we could say as much (or as little) for their justification, we could all go home early. Of course, there can't be anything very novel about anyone's answers to these questions since all possible sets of answers have been given many times. The novelty, if any, must lie in the particular procedure of justification. Indeed, what is most striking about these issues is the number of bad arguments that are adduced for correct conclusions. To answer the questions then: we can frequently justify trying to change student values in the classroom; we can frequently justify trying to change them in a particular direction; we can in fact measure them and change them and show that we do.
These answers have a nice nineteenth century naivety about them, and the sharp specialist is likely to view them with suspicion although probably a majority of us, at least secretly, believe that they are the right answers. What has led specialists to suspect these answers? Mainly the profound difficulties that have emerged in the field of ethics with the utilitarian and naturalistic approaches, in the field of tests and measurements with validation of the allegedly value-sensitive instruments, and in the field of experimental design with the analysis of long-term, ex post facto designs. I propose to say a very few words about each kind of difficulty but considerably more about the philosophical issues than the methodological ones.

The "Value-Free" and "Value-Involved" Positions

A great deal of discussion has gone on between the advocates of a "value-free" social science and what we might call the "value-involved" school. The discussion has been extraordinarily deficient in the kind of painstaking examination of simple examples that corresponds in logic to the collection and study of extensive data in the empirical sciences. Perhaps this is because the Wittgensteinian revolution in philosophy mainly consists in the realization that there is an activity of "logical data-collecting" which is absolutely fundamental to the formulation of logical theories. A priori theories are just as inappropriate in logic as in science, even though a logical theory itself will, and a scientific one will not, be a priori in another sense.

If we do examine the kind of value judgments that are often fully supportable in the consumer research field, for example, and the kind of recommendations that are often justified to the hilt in the medical field, we begin to smell a rat in the value-free story. It seems clear
enough that certain value judgments can be backed up all the way back to breakfast, using the resources of various sciences and technologies. Whether we call the propounder of such claims a scientist, an engineer, an executive, a consultant, a philosopher, or a technician seems singularly insignificant. If it is appropriate for a public health officer to condemn certain food-processing practices on the basis of extensive bacterial and other tests, and in terms of a set of criteria based on many years of field experience by many other doctors, it seems less interesting to argue about classifying his job than to recognize his action as the production of a scientifically warranted value judgment. And his condemnation is not intrinsically different from condemnations by specialist anthropologists of early practices by the Bureau of Indian Affairs, by psychologists of certain uses of the I.Q. test, by penologists of the death penalty, by political scientists of the form of government of the District of Columbia, by labor sociologists of pure piece-work wage structures, by economists of tariff raises as a protective device for a domestic industry, or for that matter, by physicists of certain interpretations of quantum theory. Criticism and approval are a necessary part of the process of internal improvement of a science, as well as of the process of external application of science, and value judgments expressing them are important and complex, and hence much debated, but absolutely inescapable—except by the ostrich route.

Of course, 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.

It is perfectly true that the codification of public health standards is greatly simplified by the remarkable universality of the desire to...
avoid ill-health, which is quite distinct from its validity. (I will discuss validity in a moment.) The basic value which the public health officer combines with his bacterial counts and sampling procedures, i.e. with his specifically scientific skills, is rather more easily identified as the chief relevant value than those which bear on the great disputes in the social fields. All that follows from this is that the value judgments with which the social scientist is concerned need more of his professional skills before they can be substantiated. For it is his skills that are required to identify the wants and needs and ideals of the people concerned. The value-free protagonist imagines that the scientist's task ends with presenting the facts about the alternatives being evaluated—let us say, about the use of advanced placement tests or new biology curricula. Then, on this account, the decision-maker selects in accordance with his own values. What an abrogation of professional responsibility this is! It is simply a fancy dress version of the old buck-passing and fee-splitting games. Suppose that the market research and package designing firms hired by a cereal manufacturer to face-lift its line were to come up with seven different packages and the comment that these appeal to various groups, and the manufacturer can just make his own decision. But how does he make it, if their groups do not happen to coincide with the ones of interest to him? They would have done either half or twice the job for which they were hired. It is up to them to find out, at the beginning of their research, which market is being attacked, or what parameters are to be used if a combination of sub-markets is to be invaded. And they won't get this answer in that form by just asking for it; they'll probably have to ask a great many questions, construct hypothetical situations, look at the power structure of the firm in order to be sure that they're
getting the answers from the source that will make the decision, etc. And they'll probably have to redo some of this values-investigation as they get near the end of the market research work. They are being asked for a specific recommendation and some of the justification for it is the inquirer's own values-in-practice, which he may perceive most imperfectly.

Notice that I am not suggesting the imposition of the consultant's values on the client, simply the investigation of the client's values by the consultant, as part of making his recommendation, his value judgment of the alternatives that confront the client.

An exactly analogous procedure is followed by the responsible psychotherapist, and the methodology of the general practitioner is—or should be—simpler only in degree. Now education, from the point of view of experimental design, is simply psychotherapy of the unsick, in most school systems, at least. The "medical model" is the proper model for educational research. We need have no fear about the fact/value distinction—it exists, but it only warns us of a difference between two phases of our professional activities. Our goal, in value matters, should be the discovery of the solution to problems of selection and rejection that require our professional expertise, and the demonstration, to those who face the problem, of the validity of our solution. Where the client does not have the expertise to comprehend the demonstration, he must, as with his doctor's recommendations, decide on its merit by using secondary indicators such as professional qualifications, the opinion of independent experts, reputation and record, etc. And to the extent that the facts are not available or do not determine a unique solution, our obligation is to explain this situation too.
A Validation Procedure

I am presupposing a practical kind of value-reasoning here, committed to the following principles:

1. If doing something will bring about a state of affairs that people value, that is a good prima facie reason for doing it.

2. If there are prima facie reasons for doing something and none against, we should do it. (It is not necessary to have a guarantee that there is not or will not be anything wrong with our decision, any more than we demand similar guarantees before adopting and acting upon a scientific claim.)

3. If there is a conflict of supportable prima facie reasons, due to an interpersonal conflict of interest, appeal must be made to a general moral principle. (Other types of conflict of reason are settled as in any case of conflicting evidence.) Only one appears defensible and it is all that is necessary. It is the principle of prima facie equality of rights for all parties to the dispute (explained in 5.).

4. This egalitarian principle can be defended on the temporizing ground that we are already committed to it—politically in a democracy, and theologically in almost all systems of religious ethics. Or it may be defended directly, by a consideration of the advantages and disadvantages of this and alternative allocations of rights, as solutions to a strategy problem in game theory.

5. Prima facie equality of consideration means actual equality of consideration except where inequalities can be defended on the basis of equality. For example, providing the President with a bodyguard is an inequality of consideration, but
it does not represent an undemocratic or unjust or immoral arrangement because it can be defended in terms of the advantages for everyone of continuity in government, defense of the head public servant from a jeopardy which would, if serious, deter enlistment of the best men as presidential candidates, etc. It is easy enough on this basis to justify a system of law, including (a) punishment for the transgressor, (b) justice in its administration, and (c) many other values from the usual moral systems, with some appeal to certain empirical claims about the consequences of certain types of behavior, e.g., the absence of previously announced penalties for misdemeanors.

6. In particular, certain attitudes (values, wants, etc.) can be criticised as immoral if alternatives are humanly possible and would be more consistent with the equality axiom, i.e. with morality. The need to eat or avoid pain can hardly be morally questionable, but a passionate desire for aggrandisement or riches at the expense of others' happiness or legally rightful property can be so criticised. Hence, we do not accept as fixed constraints on the process of equal consideration the present values of the participants. Where conflict arises, those with morally indefensible values are accorded less than equal consideration in the distribution process. Hence, when a case can be made along these lines, we can reject certain demands as illicit, e.g. demands for the death penalty as a kind of social vengeance.
The advantage of this approach to value-reasoning is that recommendations based on it are defensible in the same way that eating is defensible, i.e. as means to human ends, and they provide us with a basis for social action no more and no less empirical than the basis for engineering action. The system thus developed itself encourages extreme caution in taking actions that seriously and adversely affect human beings except where the evidence is extremely strong, but this essential conservatism will also be found in the engineering field where very large investments are involved.

In short, the popularity of a value does not by itself guarantee its validity in any way. If, however, a value is held and if it cannot be shown to be a derived value based on faulty reasoning or false premises, or to be in conflict with other values of the same person which are more important to that person, or to be in conflict with values of others which do not themselves exhibit fatal flaws of these kinds and which are more important from the moral point of view, then acting to promote this value is justified.

The Practical Consequences for Education.

I have been dealing in rather abstract terms for a few paragraphs, but the practical implications are extremely powerful. I am saying that the question of which curriculum or educational procedures a certain school system should adopt is simply part of the professional social scientist's task to discover. I do not say to determine, for that is a matter of where the power lies and it lies elsewhere. But the problem is just a problem in the applied social sciences. So far, perhaps, it may still seem that we have a relatively bland conclusion. But it follows automatically from this conclusion, as special cases follow from a general
case, that it is simply a problem of applied social science to decide on the way in which communism is discussed, the kind of disciplinary standards that are imposed, the use of physical punishment to enforce these standards, the expulsion or transfer of undisciplined students, the application of skill-grading instead of age-grading, the use of programmed texts or computer-controlled learning, the introduction of merit increases and differentials, the treatment of religion as a sign of cultural backwardness, the encouragement of overt criticism of U. S. foreign policy, the American Legion, motherhood, and marriage. These issues are **in no way** properly the province of the untrained citizen, taxpayer or not. I stress again that the political **power** may ultimately lie with the lay citizen, as it does on matters of the allocation of funds between research on cancer and on schizophrenia, but that in no way justifies his making the decision. The opposite view has been foolishly fostered in this country, is unfortunately encouraged by the legal--indeed mystical--enshrinement of local control of schools, and is ludicrously identified as either a shining product or a fundamental pillar of democracy despite the striking evidence to the contrary in this and other countries.

Of course I am well aware of the extent of the disagreement between professional social scientists about many of these issues. Indeed, if it is necessary to produce a definite answer now, many of these questions might as well be settled by the citizenry (or by the flip of a coin) as by the experts because of our present lack of data. But of course the scientific position here must be that **no action** based on confidence in either answer is appropriate, **not** that actions based on confidence in both are perfectly appropriate. The rational strategy when answers
aren't known is not to suppose that both answers are known. This confusion is as serious a consequence of the value-free position as the failure to recommend an answer where it is clearly supported.

So the lack of answers is not grounds for a lack of recommendations, but grounds for a different and more complex and cautious kind of recommendation, e.g. of experimental trials of each alternative. But many of the above issues provide us with a considerably more promising prospect of definite answers. Now often, where the discussion is already well advanced, it is too technical for the average parent. It is then the job of the educational psychologist to draw the conclusions, including the recommendations.

Student Values

The random list of issues just given includes a number that refer directly to student values, and almost all affect them indirectly. Take two particular examples: the basic disciplinary problem of maintaining sufficient order in the classroom to make teaching possible, and the teaching of scientific method or "critical thinking" in the social studies areas.

The idea of public education does not merely encourage, it presupposes sufficient discipline in the classroom to enable the teacher and pupils to perform their assigned roles—and so of course it requires the imposition on the student by the teacher of a very definite behavioral value-system. And either expulsion or corporal punishment of the trouble-makers may have to be part of the teacher's repertoire if he or she is to discharge this fundamental obligation to the other students and the society. The justification of this kind of value-conclusion, in certain circumstances, is perfectly straightforward.
We are not obliged to call for a local referendum on whether to teach genetics and comparative psychology or sociology according to the presently best supported views, whether or not these views have consequences which are offensive to an ardent racist majority in a given school district. If we are attacked for such teaching, we regard the attack as entirely improper. This is a moral judgment for which there are both moral and sound practical reasons. Teaching the truth, i.e. best-supported theory, is a pretty well-based value (cf. Lysenkoism). And in doing this we will concurrently teach values of two kinds, if we teach well. We will be teaching the general value of objectivity, of the scientific approach, as the most effective way of arriving at the truth. And we will be teaching how to apply this general method to socially and practically important issues. Amongst other examples, this will involve teaching that (or teaching the student to discover that) many of the segregationist arguments are simply ignorant nonsense. Of course this kind of teaching affects their values--not automatically or simply but frequently significantly. There is only one alternative to value-directed and value-affecting teaching in the social studies and related areas and that is not just cowardice but incompetence, professional incompetence.

The Moral Issues

Clearly a moral element is highly important in some of these value issues. Of course, I am suggesting that the properly trained social scientist specialist is better equipped than the average citizen to decide on the moral rights and wrongs of issues. Not only the effect of certain moral standards on behavior is a proper object of study for the social scientist (e.g. the anthropologist), but the very formulation and justification of these standards is an exercise in the applied social
sciences, in the augmented contemporary form that includes game theory, comparative law, decision theory and other methodologies. Moral standards are simply the behavioral imperatives associated with a particular kind of social institution, a morality or ethic, which is identified by the precedence status of its rules, the type of sanctions associated with infractions of them, their range of application, etc. As with other social institutions we can ask how effectively a morality serves the "purposes of the society," i.e. the needs and wants of its members. That is, we can evaluate moralities. Not just in terms of our local morality, but in terms of the basic needs which provide the foundation of all moralities.

It is true that morality is the most subtle and complex social institution of all, and it is so loaded with our own emotions and mythologies that social scientists have typically either denied the possibility of making normative judgments about it or made such judgments on the basis of excessively crude caricatures of it. Nor have the philosophers been of much assistance. Since Mill's death, the discussion of utilitarianism has been marked by a level of criticism not worthy of his contribution. Important criticisms do exist, and have to be met, and can be met along the lines indicated earlier. The key move in meeting them is the recognition that the original version of utilitarianism took too permissive a view of existing utilities. It is inadequate to recommend the choice of actions or rules on the basis of maximizing expectations of current utilities (however that ambiguous recommendation is interpreted). It is essential that one regard each individual's attitudes as parameters and not constants in the assessment of behavior, parameters that are not only functions of time but also partly functions of our own deliberate decisions. The social scientist is no stranger to assessment of the functional or...
nonfunctional social role of attitudes, which are (or reflect, or embody, etc.) one kind of value. And that kind of assessment is precisely and entirely what is involved in the evaluation of moral standards and hence in the moral evaluation of behavior.

In our particular society, of course, it is widely maintained that morality is somehow the province of, or dependent upon, religion, but this view receives less and less support the higher one moves in the echelons of theologians—it is in fact a crude and indefensible view avidly propagated by lay churchmen. For, in theistic religions, morality is normally represented as the wishes or law of God, and this gives rise to two unsolvable problems: providing a satisfactory proof of the existence of God and showing that, if He did exist it would be morally obligatory to obey His wishes. That neither proof will ever be furnished is made extremely probable by two millenia of unsuccessful attempts and certain logical peculiarities of the problem.

In the absence of any such proofs it is, on the other hand, perfectly easy to demonstrate that there is strong survival value in a group morality; and possible, though not easy, to show that the morality based on the principle of equal rights is the optimal one. From the axiom of equal rights, together with various facts about the organization and institutions of the society, it is possible to derive the secondary values of justice, honesty, truth, trust and so on.* Morality, in this secular version, has

*See "Morality" in Primary Philosophy, Michael Scriven, McGraw-Hill, 196
to practical life. Politically speaking, the advantage of the system just described is that its only axiom is a proposition which this country takes to be definitional of its form of government, and hence there can scarcely be any objection to teaching its consequences in the public schools. Where these consequences conflict with the moral views of various sects, the sects are to that extent guilty of undemocratic values and would have to demonstrate the error in democracy before they could make a case against this kind of value teaching in schools. (An obvious example of the consequences of undemocratic values is support for general legislation preventing the availability of efficient means of birth control.)

So the basis of morality is simply a matter of the relative social efficiency of different attitudes towards the rights of others, and, little as we can say for sure about that, it is all we can say about morality. In short, we can justify particular moral judgments and thus justify teaching them where relevant in exactly the same way as we can justify teaching particular scientific assertions that follow from a general scientific theory for which there is good evidence.

Teaching Values

This kind of conclusion makes some people extremely nervous. It should not. I say that the justification of moral and scientific claims proceeds in exactly the same way and this has three important consequences.

1. We teach as facts only those assertions which really can be objectively established (such as the immorality of the death penalty and the possibility of justifying treason and suicide in certain cases); others we teach as hypotheses.* Hence, we do not violate the rights of

*It is irrelevant that these issues are still controversial. The only relevant question is whether each side has an equally defensible position, in the light of all we now know. We can't make omelettes
without breaking eggs and we can't make social progress without treading on somebody's toes. That's the name of the game.

others to make their own choices where choice is rationally possible, nor their right to know the truth where it is known.

2. Good teaching does not consist primarily in requiring the memorization of conclusions the teacher thinks are true, but in developing the skills needed to arrive at and test conclusions. Of course, this is especially crucial in moral matters, since conclusions without understanding of the arguments for them are rejected as soon as they conflict with inclinations. This is the distinction between teaching and brain-washing, and it can only be implemented gradually, since some values—a degree of obedience to parental commands, for example—must be indoctrinated in the infant before he can understand the reasons for them. But the distinction is absolutely fundamental because it is a moral obligation (as well as a pragmatic one) not to force on others views which they are given no chance to assess.

3. That certain conclusions should now be treated as established does not mean they cannot ever turn out to be wrong. The quantum theory and the death penalty and the use of cigarettes may have to be reassessed in the light of new evidence, but that in no way justifies tentativeness in discussing their present status, which is exceptionally clear and well-documented with respect to many (though naturally not all) of the most important questions about them.

So I provide answers of a very clear kind to the first two problems; we can justify teaching values (which we already do) and we can justify particular values to teach. It does not follow from the fact that the answers to these questions are clear that we are now in possession of final answers to all specific questions about value. Of course, the
answer that we do not now know the answer is itself a clear and extremely 
valuable answer to a value-question. Though it is not as valuable as a 
"final"-i.e. a partisan and well-supported--answer would be, it is 
just as clear, and it makes certain actions indefensible and others 
proper and thus often provides just the information required by the 
inquirer.

A final warning and a final note of encouragement about value 
instruction: It is of course essential to distinguish cognitive and 
affective capacities here, and to direct educational effort along both 
dimensions. Moral analysis in particular and value analysis in general, 
are extremely complicated disciplines in which the cognitive methodology 
is not that of physics or mathematics or literature, but that of the law--
and they must be taught for as many years as it takes to make a good 
criminal or constitutional lawyer, though the teaching can begin before 
kindergarten and be concurrent with other schooling. We have an absurd 
idea that an hour or two a month in optional Sunday schools will take 
care of this prodigious task of intellectual training. We fully deserve 
the level of moral discussion that results from such non-education.

Moral behavior requires moral motivation as well as moral insight, 
and the mainspring for that (for an egalitarian morality) is identifica-
tion with others, empathy, sympathy... This, too, can be taught, from 
the very earliest ages, but not by parroting the results of the cognitive 
research. It can be taught by role-changing games, by tests of prediction 
skills about the behavior of highly different others, by the use of 
highly graphic audio-visual material and by direct field experience sup-
plemented with appropriate interviews and discussions.

So moral conclusions and moral behavior should be taught and taught 
about if for no other reason than that it's immoral to keep students
ignorant of the empirical punch behind the morality behind the law and the institutions which incorporate this country's virtues and permit its vices.

Problems of Testing

A final word or two about the methodological problems: I want to stress a consideration of scale. There isn't anything particularly difficult about thorough empirical studies of value and value-change agencies, if you get the problem on the right scale. Designing, performing and analyzing such experiments must be seen as a major research operation, for the value structure of even a single individual is as hard to untangle as the fiscal policy or power structure of a large corporation where overt deception, self-deception and just plain obscurity combine to provide truly formidable obstacles. Perhaps we can perform impressive economies by ingenious experiments in the values field, perhaps we can run a decent values inventory for 1/10 the cost of a corporation survey, but we certainly cannot perform miracles and do it for 1/1000 or 1/10000 of the cost, especially not until we have run enough of the big studies to validate short-cut instruments.

When it comes to showing what factors cause value change on a large scale, a minimal cost model must be the lung cancer studies, whereas in practice our model is a marketing study on the effect of a new blue can on the sale of Hamm's beer. Sales are observable—even lung cancer is indirectly or (post-mortem) eventually observable—but we are dealing with a highly abstract inferential construct as our dependent variable. That means we must have much more elaborate confirmatory and investigative techniques. In the time dimension, heavy smoking, unlike a change of container, has to continue for a considerable time before it has any effect on the dependent variable and for this reason provides a more
realistic analog to a value-change study. Now think of the tens of millions of dollars behind the smoking study and ask yourself where we can find a hundredth of that amount behind a values study.

Realistically, in the absence of such funds, three courses of action recommend themselves:

1. A carefully argued presentation, every time we go up for funding, as to the minimal scale that is necessary for socially meaningful results, backed up by general arguments to this point formulated as statements of policy by our professional associations. (Just keep saying in a loud voice, "We still don't know if any kind of psychotherapy is effective, after 50 years of research on the wrong scale. Is that what we want here?")

2. Where we can't go for socially significant results, we can go for locally significant results. Define the research problem in terms of values which really matter in a particular small community—a village, a campus, a dormitory, a classroom—and you can afford to tap a very narrow range and still get substantial magnification of the sensitivity of your instruments and the leverage of your results via the emotional loading: you can even afford to go for explicit values only, and still get useful results.

3. Most fundamentally, improve the instruments, which are still about as appropriate as stone axes in an electronics workshop. Instrument development (not validation for general use) can be done with a sample of half a dozen subjects, and there are plenty of hints around as to how it should be done, in the occasional good work and in the techniques of other fields.
We've had the Vernon-Allport-Lindzey work around for 15 years and yet three-quarters of the more recent tests make errors they show how to avoid.* It is a sad commentary on the state of the art that these tests should be selling well enough to encourage publishers to produce them. But there are a dozen unexploited avenues here. Why aren't we using Q-sort and R-sort methodology, forced and free, with all its advantages and highly developed techniques? (There is a hint of how this might be done if Carl Rogers' use of selfsorts for the 'ideal self' in the Chicago Counselling Center work on non-directive therapy.) Why such crude uses of semantic differential techniques, which have been so far refined in the study of verbal behavior and perception? Above all, why aren't we applying what is perhaps the key feature of programmed texts--a feature wholly immune to any of the criticisms of that technique and one characteristic of many of the best-validated instruments in the total test repertoire such as the Multiphasic--the 'fragmentation' technique? We can't just throw a whole way of life at someone for rating, as Morris does, and hope to get the subject's value structure out of the single response. Even using 13 of them assumes that factor analysis has an independent intelligence somewhat transcending God's. Values are what determines the subject's response in a half-way decent instrument, and the most direct way of getting to them without hitting them over the head in the process is the best. An important and clever step in the right direction can be found in Roy Carter's study, where the subject rates on a 5-scale each point made by the discussants in an imaginary debate about...
the best way to run a society. Here we approach a factorizable situation, and with more rephrasing of the same points to check our interpretations, and a more limited scope, the instrument (or a family like it) could become extremely valuable. Finally, if we were to elect a single study as the most ingenious and conceptually significant research on values, I have little doubt that the Hartshorne and May study would win in a walk. And when was it published? 1928! The shame of it all! Here is a study which has the advantage of getting at values that are embodied in action, but values which are still rationally inferable from the actions (unlike the leap of blind faith in the They Went to College approach), and which additionally revealed the startling and important multifactor nature of the concept of dishonesty or deceitfulness. But where are the refinements and replications? Where are the extensions of this to other value concepts? Well, one can at least say that in values research there is plenty of room for good work.

Concluding Questions

I want to end with a question. Much of the empirical work raises deep and important methodological questions—for example, the Hartshorne and May work raises the important question of the criteria for utility of concepts with non-correlating components. These questions require further thought by the fraternity. But I shall ask a simpler and more practical value-judgmental question. We are all familiar with the discrepancy between explicit and implicit values, between avowed or espoused and real values. One's natural tendency is to view this with distaste, or regret, as a sign of dishonesty, or lack of self-knowledge. But is this always the case—may not the distinction serve useful purposes, even be justifiable; in particular, should it be an educational
objective to coalesce espoused and actual values? To put the question in a form that supports the other answer: should not ideals always be ahead of one? How far ahead before they are unrealistic or discouraging? The justification of almost any program of child education depends on the answers. But we know nothing useful about the answer. How little we know about the role of values!