

# 9

## The College Experience and Moral Development

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### ABSTRACT

Research using the Defining Issues Test of moral judgment on the effects of college upon moral judgment development is reviewed. Three kinds of studies show a "college effect": cross-sectional comparisons of students at various educational levels, longitudinal follow up of subjects who attend or don't attend college, and the association of involvement in college with degree of change. Then studies on more specific life experiences (the conditions and mechanisms whereby the "college experience" has its effect) are reviewed, highlighting the role of variables such as "Continued Intellectual Stimulation" and "Academic/Career Orientation." Moral education programs are reviewed. Then the larger question of moral development (of which moral judgment development is part) is discussed in terms of a Four Component Model of moral development.

### MORAL DEVELOPMENT AS AN OUTCOME OF THE COLLEGE EXPERIENCE

In his widely-read book, *The Closing of the American Mind*, Allen Bloom (1987) writes that "higher education has failed Democracy and impoverished the souls of today's students." For Bloom, the decade of the 60s was particularly disastrous for colleges and universities, for it was then that higher education was vulgarized by the excesses of student activities and their ideology. In contrast, as much as Bloom detests the student activists, Arthur Levine admires them. In *When Dreams and Heroes Died* (1980), Levine states that the decade of the 60s

was the high water mark of student idealism. Antithetically, Levine laments that the goals of today's students have degenerated into an obsession with "meism" and the pursuit of privatism and materialism. In either case, however, Bloom and Levine suggest that colleges currently are doing a poor job in facilitating the moral development of students. This chapter disputes such a view. The research evidence reviewed and discussed here indicates that, by and large, the college experience *does* promote at least some aspects of moral development in today's youth.

Moral development has long been considered one of the important outcomes of a liberal education. Today, many educators who are concerned with the reconceptualization of what it means to be liberally educated also advocate an important place for moral development as an outcome of higher education. For instance, Derek Bok, President of Harvard University, has written often on the college experience and moral development (cf. 1976, 1988). He points out that, in the first 200 years of American higher education, a concern for student character was at least as strong as a concern for student intellectual development. While not recommending a return to the institutions of the early years, Bok nevertheless posits that colleges "have a responsibility to contribute in any way they can to the moral development of students" (1976, p. 26).

The Age of Accountability has arrived for colleges and universities (Hartle, 1985). This means that colleges and universities must produce evidence and document that students really are benefiting from the college experience in the ways that are claimed in college bulletins and promotional materials. As the costs of higher education rise and as the competition for scarce resources by rival societal goods increases, higher education must be able to demonstrate—and not just claim—that students are changing as a consequence of the college experience and in ways that society values. Amazingly, obtaining the data to document this outcome has proven to be a very arduous task. The difficulties in measuring the effects of the college experience upon the student are many and vexing. Furthermore, the data that are available thus far have not been too encouraging. For instance, Howard Bowen in the late 1970s summarized hundreds of studies dealing with the benefits of college (*Investment in Learning*, 1978). Bowen is clearly an apologist on behalf of higher education and would like to make colleges look good. Yet even his conclusions suggest quite modest effects for the college experience. Table 9.1 is reproduced from a summary chapter in his book. From this table we note that, according to the evidence available to him in the late 1970s, no effect of college exceeds an effect size of 1.0 (considered to be a "very large" effect size), and most effects of college are rather modest (if not meagre). Also, we note in Bowen's review that the effect on moral development cannot be ascertained. Although Bowen's review is dated now, no other report of this scope has since been published. The largest, most funded, most frequently cited studies also concur with Bowen's conclusions. For instance, the massive

TABLE 9.1.  
Summary of Estimated Average Changes in Individuals Resulting  
from College Education

<i>Descriptive Term</i>	<i>Personality Dimension</i>	<i>Estimated Overall Change Expressed in Standard Deviation Units</i>
Not ascertainable	Intellectual integrity, wisdom, morality	
Negative change	Religious interest	-.10 or less
No change	Human sympathy toward individuals	-.09 to +.09
Small increase	Mathematical skills, rationality, creativity, refinement of taste and conduct, consumer behavior, leisure	.10 to .39
Moderate increase	Verbal skills, intellectual tolerance, esthetic sensibility, life-long learning, psychological well-being, human sympathy toward groups, citizenship, economic productivity, health	.40 to .69
Large increase	Substantial knowledge, personal self-discovery, family life	.70 to .99
Very large increase or over	None	1.00

study by Astin (1978) of 200,000 students at 300 institutions also shows that the college experience contributes little to the variance of scores of students postgraduation once their precollege characteristics are taken into account. That is, in multiple regression analyses, if precollege scores are entered first, the during-college effects increase the predictability to postcollege scores only about 1% (see the data tables in the back of Astin's book, 1978, pp. 267-269). Such findings do not engender a quiet confidence and optimism among those responsible for documenting the benefits of higher education.

However, we contend that researchers who indicate that college does not have a significant impact on moral development have not had access to or have not attended to recent findings regarding moral judgment development. Moral judgment research takes an approach to assessment different from most of the earlier studies assessing college outcomes, where variables are constructed according to a developmental strategy rather than according to an individual difference strategy. Most of the findings about moral judgment development in college students are too recent to have been included in the cited reviews of the higher education literature. Moreover, the investigators in moral judgment are not usually identified with higher education research but more often belong to the field of develop-

mental psychology. Nevertheless, this research area should be of considerable interest to higher education researchers.

### WHAT COUNTS AS A "COLLEGE EFFECT"?

It is not a simple matter to demonstrate the benefits of college. One difficulty is essentially a problem of study design. Namely, how can the researcher collect data that would build a case for inferring that college was causing some effect? A little reflection reveals a basic limitation in study design: Researchers in higher education cannot randomly assign subjects to experimental and control groups. Since we don't have control over people's decisions to go to college or not, a straight experimental design is not possible. Therefore, less compelling designs are used. There seem to be three major ways for setting up a study to be used for inferring college effects, each with its own special problems. (1) The first design is the simplest and also the most difficult from which to draw unambiguous inferences. It is to test a group of freshmen and a group of seniors on some measure; if senior scores are higher, one may infer that the college experience must be causing student scores to increase. Of course, there are many possible sources of invalidity here; nonetheless, it is reasonable to do this kind of study initially, before engaging in more costly or complicated designs. (2) Another design is to conduct a longitudinal study of adolescents going to college and those not going to college. Measurements are taken before and after the college years. Then, contrasts are made between the groups on the posttest scores, *statistically* adjusting for certain pretest characteristics. The hope in this design is that it be possible to use the same subjects as their own controls pre- to posttest (thus obtaining true gain scores), and to equalize the college and noncollege groups statistically, even if one cannot control by design to ensure equalization by randomization. (3) A third design is to study only the college group, to look at the degree of involvement in the college experience, and to relate involvement with gains during college. The basic idea here is that different students actually receive different "doses" or amounts of college; those who receive bigger "doses" of college should gain more than those who receive smaller "doses" (if college is indeed causing the effect). Studies of this type attempt to operationalize "dosage" in various ways, usually by time and effort spent in participation or by measures of psychological involvement and commitment.

These are the kinds of studies that are used to assess whether college is having some effect or not. Each of these types of studies has been reported when using moral judgment (more specifically, the Defining Issues Test) as the outcome measure. To anticipate a little, the following sections review these sorts of studies and show positive results for each type, that is, that college seems to be having a positive effect in promoting moral judgment development. We estimate that over 100 colleges and universities have used or are currently using the

Defining Issues Test (DIT) as part of their assessment program. This is probably due to the fact that results are usually positive and that the DIT can be administered and scored easily.

### WHAT IS MORAL JUDGMENT AS MEASURED BY THE DIT?

Before moving on to a discussion of the college studies, some brief comments on the variable under consideration here, the DIT, seem in order.

The DIT is derived from the work of Lawrence Kohlberg (cf. 1984) and the cognitive developmental tradition of research in moral judgment. Moral judgment is understood to be one of the major components in moral development and one of the major determinants of moral behavior. However, moral judgment is not the *only* component of moral development or moral behavior. (More is said later about the other components of moral development.) Essentially, moral judgment refers to the process of deciding which course of action within a specific dilemma is the morally ideal one—that is, what ought the person to do? The DIT follows Kohlberg in asserting that there are six basic problem-solving strategies that people use in making moral judgments, and further, that the six strategies can be fruitfully characterized in terms of six basic conceptions of justice (“justice” being described here in terms of what is fair or what are the requirements of reciprocity given different conceptions of how cooperation can be organized—see Rest, 1979, chap. 2 for further discussion).

Not only are there differences among people in the basic problem-solving strategy used to arrive at a moral judgment, but, also reflecting Kohlberg, the six orientations are said to be developmentally ordered such that the first orientation shows up early in a person’s development while the other orientations show up afterwards, in the order described by the theory. The sequencing of the stages comes about because the early orientations are logically simpler and the later orientations are elaborations of the earlier orientations—in other words, the ordering principle is such that simple precedes complex.

The DIT uses hypothetical stories—stories patterned after the Kohlberg dilemmas, such as Heinz and the Drug—to engage subjects in moral problem solving. Unlike the Kohlberg procedure where subjects are asked to talk about their solutions to the dilemmas, subjects on the DIT are presented with 12 items and asked to rate and rank these items. The items present different versions of what might be the crucial issue or most important concern of someone making a decision about the story. Subjects are not asked to furnish these, but to indicate which of the 12 items is the most important issue to them. The items are designed to represent different stages of reasoning. On the basis of how they rate and rank these, a developmental score is calculated. This procedure does not call for individual interviewing, but can be group administered. The subjects’ responses

can also be scored by computer. Optical scan forms for computer scoring are available.<sup>1</sup>

A variety of scores result from the DIT, but the most frequently used is the "P" score ("Principled" moral thinking). The P score indicates the extent to which the subject considers the "Principled" items (items from stages 5 and 6) as most important. Because moral philosophers have the highest P scores, one way to interpret the DIT's P score is the extent to which the subject makes moral judgments like a moral philosopher. Test-retest reliability in several studies is in the .8 range, and Cronbach's alpha is also around .8.

A *developmental* approach to instrumentation entails that the investigator be more interested in how people change over time and less interested in how individuals are different from each other at one point in time. In other words, developmentalists are interested in how a group of 10-year-olds differ from a group of 15-year-olds; developmentalists are less interested in how 15-year-olds are different from each other. Of course both types of differences exist. But as developmentalists devise methods of assessment, they highlight the changes that occur over time in people generally, minimizing differences among subjects in the same cohort. In contrast, researchers in the individual difference tradition highlight differences among individuals in a cohort and minimize differences over time. In fact, the development of many trait measures involves choosing items that show stability over time and situations.

There is an important consequence of the differences in basic strategy in developing instruments. Most measures in higher education research have been developed primarily with an individual difference approach and not with a developmental approach. Yet the critical question of assessing the impact of higher education logically seems more congenial to an interest in changes in the individual over time, not in stable differences among people that persist over time.

### EVIDENCE THAT THERE IS A "COLLEGE EFFECT" ON THE DIT

Recall that the first line of evidence (from the three discussed before) for a college effect is to find that more educated subjects have higher scores than less educated subjects. There have been many studies of this sort reporting contrasts between subjects grouped by age and/or education. Perhaps the most impressive evidence to report are two secondary analyses that combine subjects from dozens of studies into samples of over 5000 subjects. In a secondary analysis reported in 1979 (Rest), formal education accounted for almost 50% of the variance of DIT

<sup>1</sup>For information about scoring procedures and the availability of printed forms of the DIT, write to The Center for the Study of Ethical Development/ 206-A Burton Hall/ 178 Pillsbury Drive SE/ University of Minnesota/ Minneapolis, MN 55455 (612-624-0876 or 612-624-4540).

scores. In a secondary analysis by Thoma in 1986 (in Rest, 1986, chapter 2), formal education also accounted for about 50% of the variance. (Incidentally, by way of contrast, sex of subject accounted for less than half of 1% of the variance, education was 250 times more powerful than gender, therefore gender as a variable in DIT scores is a trivial variable.) Therefore it is quite common to find that the DIT scores of seniors are higher than those of freshmen.

The second line of evidence for a college effect on the DIT is produced by longitudinal studies. Here the subject is retested a number of times and hence can serve as his or her own control. The question is, with repeated testings, do scores increase? The most recent longitudinal study of the DIT is reported by Deemer and Rest (in Rest, 1986) on 102 subjects who were followed from high school and reassessed 10 years later. (In Fig. 9.1, "HS" indicates DIT scores in high school, "HS+2" indicates high school plus 2 years afterward, and 1983 represents 10 years after high school.) Some of this group graduated from college (the "high" education group), some did not go to college at all (the "low" education group), some went for a short time (the "moderate" education group). As Fig. 9.1 shows, the general pattern is that those who completed college degrees continued to gain in DIT scores, those who had no college education dropped in scores, and those who had some college education gained while in college but their scores tended to plateau when they left college. Evidently, there is a strong college effect and not just an age or maturational effect. College attendance accounts for 38% of the variance in posttest DIT scores, and the college effect is still strong after initial high school scores are statistically partialled out.

The findings with the DIT parallel the trends in Kohlberg's longitudinal data (Colby, Kohlberg, Gibbs, & Lieberman, 1983). Using the Moral Judgment Interview, the adult subjects in that sample showed correlations of moral judgment with education in the .50s and .60s.

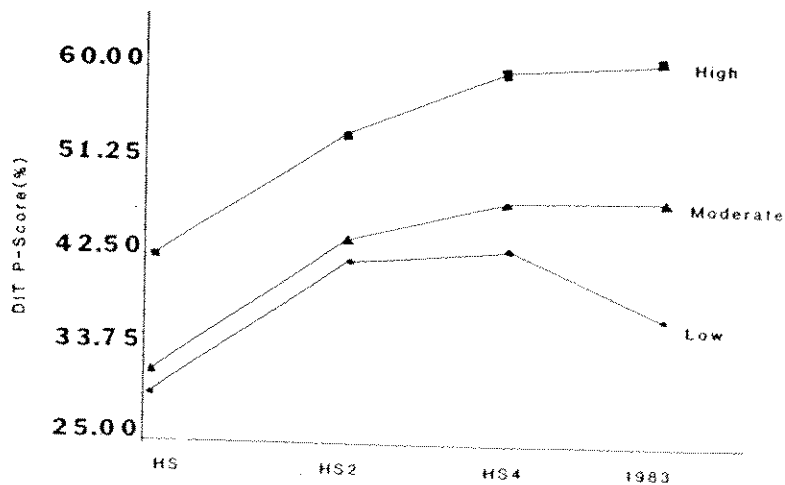


FIG. 9.1. Query author for short FC.

The third line of evidence for a college effect is to look only at those attending college, contrasting highly involved students with students less involved. Deemer's dissertation (1987) presents evidence of this sort. She coded a variable called "Educational Orientation." Students high on Educational Orientation were those who worked hard at their studies, enjoyed academic life, the world of ideas and the activities of reading and discussing, and who chose friends who were similarly serious students. The highly involved students gained more on the DIT than students with low involvement. In multiple regression analyses, Educational Orientation accounted for 12.6% of the variance after high school DIT scores were statistically controlled. (This 12.6% is relatively high compared with the 1% accounted for in the large-scale studies by Astin, and others cited earlier.) Therefore, there is evidence that those students who receive a larger *dose* of college (by virtue of being more involved) show greater gains in DIT scores.

### WHAT IN THE COLLEGE EXPERIENCE CAUSES DEVELOPMENT?

The findings presented so far suggest that there is a "college effect"—that is, that gains in moral judgment are associated with going to college. But what is it about college that produces growth? Do the gains in moral judgment reflect material that is learned from assigned readings and lectures? Do the gains come from extracurricular activities? Do the gains come from the social mixing that takes place in college? Do they come from characteristics that students bring to college themselves, and, as such, are not caused by anything pertaining to college at all?

The researcher might look for answers to this question in different ways. The way that one asks the question affects what one finds. Research is pointing to both general and specific features of the college experience that affect moral judgment development. Different kinds of experiences may be important for different people. In addition, both the college environment and personal predispositions appear to interact to produce measurable gains in moral judgment.

The first research strategy was a rather straightforward one, but simple-minded. We might call this the "checklist" approach. At least nine studies have used this approach (see Rest, 1986, chapter 2 for a more detailed review). The researcher starts out with a list of "life experiences" (such as certain readings, religious activity, personal stress, new work responsibilities, social experiences of various sorts, etc.). Subsequently, each item on this list is related to development in moral judgment. The point of such a study is to look for those items that are highly related to gains in order to conclude that those particular kinds of experiences are producing moral judgment development. Clearly highlighting



the importance of the environment—individual interaction is the evidence that an experience could be characteristic of some people whose scores increased and also characteristic of some people whose scores did not. Interestingly, none of the items was strongly and consistently related to gain. According to the logic of the checklist approach, one might conclude that the findings show that there is nothing in the college environment that facilitates growth.

With hindsight, we now see that there are several problems with a checklist approach. One difficulty stems from the assumption that one particular kind of activity is generally conducive to growth among all subjects. Instead, what we now conclude is that moral judgment is stimulated in different people by different activities. What is favorable for growth in one person may not work for another. In fact, combinations of activities may spur development in some individuals, rather than a single activity.

Furthermore, in characterizing life experiences, it is important not only to record the environmental stimuli impinging upon a subject but also the subject's response to and assimilation of that event. For instance, imagine two students who take a trip to Europe. One student might be struck by the different conditions in which people live, which might trigger reflections upon the human condition more generally, and in turn, affect moral judgment development. In contrast, another student going to Europe might experience the trip as essentially going from one restaurant to another, and the trip would not affect moral judgment development at all. In other words, the same kind of stimuli events might not have the same meaning or impact on different students. Therefore, in characterizing life experiences we need to take into account both the stimulus event and the person's reaction to it. To paraphrase John Dewey (1916), experience is not what happens to you, it is what you do with what happens to you (p. 140).

Spicklemier (1983) and Deemer (1987) have devised a better strategy for studying the life conditions that lead to gains in moral judgment. Instead of analyzing narrow, specific events (e.g., travel, reading certain books, certain living arrangements) they look at broad conditions. Their way of characterizing life experience is in terms of categories such as "Educational Orientation" and "Continued Intellectual Stimulation." As described earlier, "Educational Orientation" codes students who work hard at their studies, who enjoy learning, and who seek out friends who are also serious students. Table 9.2 provides examples of interview excerpts that were used to code high or low on this variable.

"Continued Intellectual Stimulation" characterizes in a very general fashion the extent of intellectual stimulation provided by one's environment. For instance, a person who leaves high school, goes to college, and secures a professional job involving many challenges would be coded high; a person who went to college but then worked in a stifling job would be coded lower; a person who worked in a routine job in a factory or was chronically unemployed would

TABLE 9.2.  
Code Examples for "Educational Orientation"

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*Examples of High Codes*

I really enjoyed the academic support groups, and the professors. I liked many of my classes. I liked to be in the academic atmosphere. You would go and you would talk to interesting people about interesting things. Life just seems higher pitched. I like that atmosphere.

I was in the honors program. That was really good training. I had good grades, about a 3.7 approximately. I studied real hard especially right before a test. I enjoyed living on campus because there were always people around to do something with, something to talk about.

With my roommate, we got extremely close. We'd talk about all sorts of things, like should we be organ donors? What happens when you die? Does God exist? We had fantastic talks, it was terrific.

*Examples of Low Codes*

I was always undecided. I never had a major. Somebody would tell me, "Hey, this is an easy course," and I'd take it. I took a little of everything, mostly entry level classes. I never applied towards anything. (Interviewer: How did you spend your time?) I didn't do much. I worked a little. I was living at home and probably worked half the week. I was doing a lot of drugs at the time. And I did a lot of partying. Hence the effect on my GPA. They weren't particularly happy or productive years. There isn't anything that sticks out in my mind that was really enjoyable.

I went to college right after high school. I was sort of forced to by my folks. I didn't particularly want to but parental pressure dictated. I went to a college close to my home. I figured that's as good a place as any. I never had a major. I eventually dropped out. I'd go for a quarter or two, then take a quarter off, and then go back the next quarter. All the time I was going to college I didn't really have an interest in it, and I was just more or less buying time, and I didn't study. (Interviewer: What did you like most about school?) I don't know what I enjoyed most. Dating. Partying. Summers.

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receive very low scores on this code. Examples of high codes are not difficult to imagine: some of the previous excerpts in Table 9.2 convey the excitement of college and later work. Also included are some noncollege subjects whose work has been challenging. For intermediate scores on this code, people are included whose work may not be particularly stimulating, but whose community involvements are rich, or whose circle of friends and spouse are enlivening, or who have made family life stimulating. Examples of low scores on this code are given in Table 9.3.

Note these features about this type of approach to characterizing life experience: (1) Many different kinds of specific experiences can contribute to a per-

TABLE 9.3.  
Examples of Low Codes for "Continued Intellectual Stimulation"

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I get bored easy. Most of the jobs that I had were for a couple of months here, a couple of months there. I get bored real easy with what I'm doing. I don't like to get stuck in a rut. All those places I worked until I couldn't go no higher.

All I do is stay home with the baby. With a small baby you don't get a chance to meet people. I don't go out except to the grocery store.

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son's general level of intellectual stimulation or educational orientation. For example, some people find that what makes life stimulating is what they read, while for others, it is their friends. (2) These characterizations presuppose a complex reciprocal interaction of personal characteristics and environment. People help make their own environments and often self-select themselves into situations of challenge and opportunity. At the same time, in order to develop, people need certain environmental supports and advantages. Development proceeds most favorably with the best of both aspects, when the person seeks to develop and when the situation fosters and supports development. It is not assumed that all people would profit from college if all were encouraged to go. Nor it is supposed that all people with the potential to profit from high intellectual stimulation do in fact receive the stimulation necessary for development. It would be interesting for future research to trace out how this reciprocity between personal characteristics and the environment interacts in specific cases.

Deemer's study (1987; also discussed in Rest, 1986) used 10-year longitudinal data to ascertain the relation of these experience codes with gains in DIT scores. DIT scores were available for 102 subjects when they were seniors in high school and 10 years later. Deemer conducted multiple regression analyses, entering first the high school DIT scores, then the experience variables, and predicting to DIT scores 10 years later. In effect, this procedure relates gains in DIT scores to the experience codes and statistically controls for initial differences in DIT scores in high school. She found highly significant effects: the Academic Orientation code accounted for 12.6% of the post test DIT scores, and Continued Intellectual Stimulation accounted for 22% of the variance (after controlling for high school DIT scores). Therefore, in contrast to the first strategy (the "Checklist" strategy, which produced little predictability or consistency), this second strategy produced considerable predictability and consistency in both the Spickelmier study (1983) and in the Deemer (1987) study.

We conclude, then, that one of the influences of the college experience is that it provides general intellectual stimulation that causes students to overhaul and rethink the basic ways in which they make moral judgments. We stress the *general* nature of this influence. It was striking in the Deemer study that subjects did not attribute growth to specific moral leaders or special moral crises or distinctively moral experiences. Instead, moral development in these subjects seems to progress along with social development on a wide front, promoted by a broad range of experiences. Furthermore, the college effect is about the same for humanities and liberal arts students as for science and technology students (Rest, 1979; Schomberg, 1978). This finding suggests that the college effect is not curriculum specific, or at least does not seem to follow academic majors. In general, college's impact on moral judgment development does not seem to be mediated primarily through specific readings or through the learning of particular academic content. The extracurricular milieu of the college may be as important as the general stimulation that is provided in course work.

## SPECIFIC MORAL EDUCATION COURSES

If development in moral judgment is a general phenomenon, then does it make any sense to conduct moral education courses? Can educational interventions be designed to specifically target development in moral judgment?

Although our longitudinal studies indicate that most students do not participate in moral education courses, and that the general stimulation of college promotes moral judgment development, research on moral education courses evinces that such experiences are also beneficial. In short, the college experience can promote moral judgment development in both general ways and in specifically targeted ways.

A review and meta-analysis of over 50 moral education programs is reported in Schlaefli, Rest, and Thoma (1985; also see Rest, 1986, chapter 3). All of these programs used the DIT to evaluate the effectiveness of the program in promoting development in moral judgment. One analysis grouped the 50+ programs into four treatment types: (1) Dilemma discussion, (2) Personality development, (3) Academic courses, and (4) Short-term interventions. In this four-way classification, the attempt was made to characterize the major educational method for instituting change. Although within each of the four types there were many differences in curriculum, there were some important family resemblances.

In the *Dilemma discussion* group of moral education programs, subjects were presented with moral dilemmas and were asked to volunteer their thinking about possible solutions. The participants generated solutions and critiqued each other's thinking. In the *Personality development* programs, subjects were involved in a social service project, in reading developmental psychology materials, and in a seminar which was intended to integrate personal experience with the readings in academic developmental psychology. Moral development was intended to be fostered as one strand in general personality development. In the *Academic course* interventions, regular didactic courses were tested for their effectiveness in promoting moral development. Courses included church history, various literature and humanities courses, and art appreciation. Mastery of academic content was the focus of the course, and the format was the usual combination of lecture, discussion, and examination. The *Short term* programs were so designated by the length of the intervention rather than by the activity of the intervention. Programs meeting for several hours for no more than 2 weeks were grouped in this category.

Table 9.4 shows the effect size of the experimental group ("E") under each treatment type along with the control group ("C") used to compare pre- and posteffects. The larger the difference between the effect size for the E group in contrast to the C group, the more powerful is the educational effect. The last column in the table displays the 95% confidence interval for the effect size. (If the range of the  $d$  statistic does not encompass the value of "0", then the effect size is statistically significant.) Table 9.4 indicates that Dilemma discussion had

TABLE 9.4.  
Effects of Different Types of Treatments

<i>Treatment Type</i>	<i>Number of Samples</i>	<i>Effect Sizes</i>	<i>95% C.I.</i>
Dilemma discussion			
E	23	.41	(.28<d<.56)
C	17	.09	(-.11<d<.28)
Personality development			
E	38	.36	(.20<d<.52)
C	17	.09	(-.09<d<.27)
Academic Courses			
E	9	.09	(-.09<d<.27)
C	7	-.11	(-.15<d<.33)
Short-term			
E	15	.09	(-.15<d<.33)
C	3	-.11	(-.74<d<.52)

the most powerful impact, followed by the Personality development interventions. The Academic courses and the Short-term interventions did not show significant effect sizes. Therefore, there is evidence that particular types of moral intervention programs are effective in promoting development of moral judgment.

In both the Dilemma discussion interventions and the Personality development interventions, the role of the teacher is more as facilitator than as information-giver. Typically, educators influenced by the Piagetian or cognitive-developmental theory have emphasized student activity in the learning process and have deemphasized didactic teaching. A salient feature of these Dilemma discussion and Personality development programs in our meta-analysis is that the educative activities are designed to get the student active in discovering problem-solving strategies rather than designed to inform the student about useful strategies that have been developed in the past. The message of this meta-analysis seems to be that the teacher should desist from didactic teaching and instead function as a process facilitator. Presumably, what is wrong with didactic teaching is that the student learns the ideas on a superficial verbal level and does not integrate them into his or her own operative decision-making process. Although this seems to be the message of the meta-analysis, it is important to realize that a review of past studies can only summarize what has worked in the past; a review cannot say what will be most effective in the future.

Recently a study reported by Penn (1989) challenges the view that effective moral education is best accomplished by nondidactic methods. Penn's most convincing argument is to cite data that show that his didactic approach repeatedly produces effect sizes over twice that of the Dilemma discussion method and of the Personality development method.

Table 9.5 shows five different classes with different intervention elements. All five involve experience in solving moral dilemmas (application of methods to social issues). Groups 1–3 involve didactic teaching of concepts from moral philosophy. Group 1 includes a component in the didactic teaching of formal logic. As the bottom part of Table 9.5 shows, the biggest effects were with Groups 1–3, those containing the didactic teaching of concepts of moral philosophy. We note that in Groups 1–3, the effect sizes of 1.00, .94, and .84 are over double the effect sizes in Table 9.4 for the Dilemma discussion and Personality development groups (.41 and .36, respectively). The argument can be made that getting students active in their own learning does not entail that the teacher be passive (see discussion, for instance, by Anderson, 1989). Penn argues that the instruction of physics does not proceed by just placing the student in a lab and letting the student discover anew the laws of physics. There are past discoveries

TABLE 9.5.  
Five Educational Interventions

Group (N)	1 (57) U. Ethics ID 1	2 (31) MBA Ethics ID 2a	3 (114) U. Ethics ID 2b	4 (19) U. Ethics Non ID	5 (97) Non Ethics
<i>ELEMENTS</i>	Formal logic				
	Dev. theory, stage typology	Dev. theory, stage typology	Dev. theory, stage typology	Dev. theory stage typology	
	Philos. methods of ethical analysis	Philos. methods of ethical analysis	Philos. methods of ethical analysis		
	Applic of methods to social issues	Applic of methods to social issues	Applic. of methods to social issues	Applic. of methods to social issues	Applic. of methods to social issues
P Score Pretest					
X	35.25	39.78	36.61	37.41	35.93
SD	15.2	13.45	14.22	13.06	15.58
Posttest					
X	50.41	52.42	48.52	41.29	39.95
SD	17.01	17.72	15.84	19.89	17.21
EFFECT SIZE	1.00	.94	.84	.30	.19

worth telling to the student. (Of course, this must be done in a way that the student can comprehend.) Similarly, Penn argues, there are important tools of thought that moral philosophers have discovered, and these need to be presented didactically in a way that the student can follow and understand. Properly taught, students can appropriate discoveries of the past and use them in operative moral decision-making.

In sum, moral education programs are effective. There is still debate over which method works best with whom, and there is much room for future research and educational development in the field. What seems clear, however, is that college can be efficacious in providing general stimulation that results in moral judgment development. Moreover, specific types of college courses in moral education are effective in promoting development of moral judgment.

### THE FOUR COMPONENT MODEL

A nagging question persists: If colleges are doing such a good job at moral development, why is the world in such lousy shape? More and more people are going to college, so things should be getting better and better—or so it seems to follow from our discussion thus far. But are they?

The idea that civilization is inevitably progressing and that education will create a material and spiritual utopia on earth was severely challenged by the World Wars. The experience of seeing the most educated and civilized countries of the world in the struggle to inflict harm upon each other has disabused people of such quixotic notions.

If the college experience has such a positive influence on moral judgment, what, then, is the evidence that people are morally better?

This paradox unravels once we realize that moral judgment is but one of four basic components in moral development. There are four major internal processes that produce moral behavior; moral judgment is only one of these (see Rest, 1984, 1983). The four components are (1) moral sensitivity, (2) moral judgment, (3) moral motivation, and (4) ego strength or moral character. Briefly, the characteristics of each process follow.

1. Moral sensitivity is the process by which a subject interprets a social situation, figures out what lines of action are possible, identifies who has a stake in what is done, figures out how each line of action would affect the welfare and interests of each party; moral sensitivity involves being aware that there is a moral problem, involves role taking and empathy.

2. Moral judgment, as we have said, concerns the process by which a person selects one course of action as the morally best course of action.

3. Moral motivation concerns the processes whereby a person prioritizes

moral values such that other personal values do not preempt or compromise what the moral line of action should be.

4. Ego strength or moral character concerns those processes by which a person persists in pursuing the moral course of action, overcomes distractions and fatigue, exercises courage in following through on one's moral convictions.

In sum, moral behavior is the result of this ensemble of inner processes, not the result of just one psychological construct or variable.

Moral failure can come about by deficiencies in any one of these components. The four processes are like links in a chain: the chain is only as strong as the weakest link. Therefore even if we see rampant moral failure in behavior among our college graduates, this does not contradict the findings that colleges are effective in facilitating moral judgment. Development in moral judgment means that at least people are not failing to behave morally due to inadequate, simplistic reasoning about what constitutes a moral course of action. If people have developed defensible ways of reasoning about moral dilemmas, their moral failures must lie in other deficiencies.

What good is development in moral judgment if people still behave immorally? Not surprisingly, there is research evidence for a significant positive correlation between development in moral judgment and moral behavior (Blasi, 1980; Rest, 1986, Chapter 5). Development in moral judgment makes a significant difference, but it is not nearly enough to powerfully determine behavior by itself. Mature moral judgment means that *it* cannot be the source of moral failure and that there must be another cause for moral inefficacy.

A comprehensive moral education program would attend to all four components of moral behavior. Currently, such a program does not exist. Regardless, we ought not deny the positive impact of the college experience upon even one of these major components of moral behavior. To quote Derek Bok (1976) once again, colleges "have a responsibility to contribute in any way they can to the moral development of students" (p. 26). As we have seen, one of the ways college does contribute is in fostering the development of moral judgment. Current work in moral education programming suggests the possibility of fostering development in the other components as well. Perhaps we shall learn how to do that.

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