Moral Judgment of Law Students Across Three Years: Influences of Gender, Political Ideology and Interest in Altruistic Law Practice

Maury Landsman
*University of Minnesota Law School*, lands001@umn.edu

Steven P. McNeel

Follow this and additional works at: https://scholarship.law.umn.edu/faculty_articles

Part of the *Law Commons*

**Recommended Citation**

This Article is brought to you for free and open access by the University of Minnesota Law School. It has been accepted for inclusion in the Faculty Scholarship collection by an authorized administrator of the Scholarship Repository. For more information, please contact lenzx009@umn.edu.
MORAL JUDGMENT OF LAW STUDENTS ACROSS THREE YEARS: INFLUENCES OF GENDER, POLITICAL IDEOLOGY AND INTEREST IN ALTRUISTIC LAW PRACTICE

MAURY LANDSMAN*

STEVEN P. MCNEEL**

I. INTRODUCTION............................................................................ 892
II. DEFINING AND MEASURING MORAL JUDGMENT ...................... 894
   A. Morality is Multifaceted......................................................... 894
   B. The Defining Issues Test...................................................... 895
      1. How the DIT-2 Measures Moral Judgment.......................... 896
      2. Validity of the DIT............................................................. 897
III. GENDER DIFFERENCES IN MORAL JUDGMENT? ...................... 898
IV. POSTCONVENTIONAL MORAL REASONING............................ 900
V. EXPECTED CHANGES DURING THE FIRST YEAR OF LAW SCHOOL ........................................................................ 900
   A. Changes in Moral Judgment in Professional/Graduate School ................................................................. 900
   B. Method and Research Instruments ........................................ 901
      1. The Defining Issues Test, Revised (DIT-2) ......................... 901
      2. Job Importance Questionnaire............................................. 902
      3. Political Ideology............................................................... 902
   C. Participants and Procedure .................................................. 903
      1. Beginning First Year Law Students ................................. 903
      2. Beginning Second Year Law Students ............................. 903
      3. Ending Third Year Law Students ..................................... 903
VI. RESULTS.................................................................................. 904

A. Moral Judgment in Beginning Law Students:

* Clinical Professor and Director of Clinics and Skills, University of Minnesota Law School.

** Professor of Psychology at Bethel College, St. Paul, Minnesota; Affiliate Member of the Center for the Study of Ethical Development, University of Minnesota. The authors would like to thank the students who have worked on this project as research assistants: David Batson, Timothy Hadley, Nicole Lexvold, Joshua Tepfer, and Nathan Nelson as well as the University of Minnesota Law School Class of 2002 for their willingness to take part in the study.
Addressing the Unethical Lawyer Stereotype

I. Moral Judgment of Beginning Law Students

II. Gender Differences

B. Moral Judgment Across the Years of Law School

1. Moral Judgment and Gender

2. Moral Judgment and Political Ideology


VII. Predictors of Moral Judgment in Law Students

A. Moral Judgment and the Unethical Lawyer Stereotype

VIII. Women Law Students' Levels of Moral Judgment as Compared to Men

IX. Legal Education and Moral Judgment

X. Ethics Interventions in Law School

XI. Conclusion

I. Introduction

Jokes and negative stereotypes about lawyers abound, suggesting low levels of honesty and morality. One commentator has suggested a reason for this:

[T]he joke rings true to a lot of people because of what many lawyers in this country—including many at the top of the profession—do for their clients: bend, distort, conceal, cover up, obfuscate, or misrepresent the facts, in ways that are simultaneously (1) regarded by ordinary people as just plain dishonest, and (2) defended by many lawyers and legal experts as embodying the finest traditions of the bar and of legal ethics in our adversary system.¹

The last twenty years have produced increasing attention to the psychological and social effects of law school on lawyers and lawyers' ethics, although this concern has existed for a much longer time. In a recent study, Granfield and Koenig found that law school did not prepare young lawyers for the recurring conflicts produced by "remaining a moral human being while simultaneously upholding the ethical obligations associated with the legal profession..."² In an empirical study, meant to focus on how attorneys experienced ethical issues within their practices, these authors found that the training did

---

not provide "moral sensitivity and moral judgment" and suggests that ethics courses did not consider the question of "moral motivation." The failure to develop "moral motivation" may be inferred from the responses of a number of participants who, when faced with conflicts between moral values and professional values, chose professional values as the default position, insulating them from having to determine whether those values were a sufficient moral motivation. Granfield and Koenig discuss the various critiques of law school ethics education and suggest some changes that we will discuss later in this article.  

Another study of law students at two different law schools found, consistent with earlier studies, that students show a decline in endorsement of intrinsic values, "moving away from community service values and towards appearance and image values." These findings are consistent with earlier studies showing declines in law students’ preference for what may be called altruistic law practice, and generally the findings are consistent with the common stereotypes of amoral lawyers.  

The critique of lawyers' moral judgment and the failure of law schools to produce lawyers who exhibit good moral judgment is a perennial theme in these studies. The lawyer’s traditional defense, a seemingly amoral stance, has been to justify it as being moral because of the role of the lawyer in society. Commentators like Roger Cramton, David Luban, Thomas Shaffer, Deborah Rhode, and others have criticized this defense of traditional lawyer role morality. Among other critiques, these commentators claim that the role justification is weak, even if valid, or that lawyers cannot avoid dealing with and

3. Id. at 520.


9. LUBAN, supra note 8.
taking stances on moral issues, if only by ignoring them.\textsuperscript{10} One can also raise the question of whether the reliance on role morality as a justification for all actions taken by lawyers, otherwise considered immoral, is a sign that the profession’s ethics are an inhibitor of full moral development. Paul Tremblay has written that while the project of moral activism among legal ethics teachers has won the day, it has been largely futile in raising the level of moral quality among lawyers.\textsuperscript{11}

Additionally, over the last twenty years, the population of women has increased from a mere fraction of the law school population to approximately half. In the midst of these changes, critical feminist thinkers and others in legal academia began to ask again about the effects of law school and the profession at large upon women.\textsuperscript{12}

This paper examines the moral judgment of law students in each of the three years of law school, and considers whether there is a difference in the moral judgment of male and female law students. Further, this paper relates moral judgment to students’ preference for certain altruistically-oriented public interest jobs.

\section*{II. DEFINING AND MEASURING MORAL JUDGMENT}

\subsection*{A. Morality is Multifaceted}

Social science literature explains that, from the point of view of social and developmental psychology, morality is a complex phenomenon. For example, Rest argues that there are four interrelated and interacting components involved when we ask the question “What must happen in order for a person to behave morally?”\textsuperscript{13} First, one must perceive relevant moral concerns in the

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{10} Deborah L. Rhode, \textit{Teaching Legal Ethics into the Valley of Ethics: Professional Responsibility and Education Reform}, 58 \textit{Law & Contemp. Probs.} 139 (1995).
\end{itemize}
\end{footnotesize}
situation (moral sensitivity); this might also be labeled “moral perception.” Next, one must put those concerns together into an adequate, mature judgment about what is right or wrong (moral judgment). Further, if one perceives and judges well, one must still place moral values above other values relevant to the situation, thus effectively deciding to do the moral act (moral motivation). Finally, one must effectively implement the decision to act morally, through perseverance, effective problem solving, etc. (implementation skills)."^{14}

While there is research relevant to each of these components, most research has focused on moral judgment and the factors that facilitate or inhibit its high level development. Moral judgment is also the component of morality that has been measured most adequately. Further, this component of morality is ideal for an educational context because it is highly cognitive in orientation. For these reasons, this paper focuses on the component of moral judgment, though some in the profession (i.e. Granfield) would also be concerned about law students’ levels of moral sensitivity or moral motivation.

B. The Defining Issues Test

To measure moral judgment among law students, we used the revised version of the Defining Issues Test.\textsuperscript{15} This objective measure of moral judgment is based on Lawrence Kohlberg’s research and theory about moral development and on hundreds of hours of in-depth interviews with people about their moral reasoning in moral dilemmas.\textsuperscript{16} Any test that purports to measure a psychological quality (whether moral judgment, some dimension of personality, evaluation of quality of teaching, or whatever) must be characterized by both reliability and validity. That is, the test must measure consistently and it must measure what it is supposed to measure and not measure what it is not supposed to measure. The DIT and the DIT-2 meet both of these criteria quite well.\textsuperscript{17} Further, the DIT has been used successfully to assess moral judgment in a variety of different colleges and universities\textsuperscript{18} and in graduate students in various professional areas.

\footnotesize{14. The four interrelated and interacting components for morality are Moral Sensitivity, Moral Judgment, Moral Motivation, and Implementation Skills.\par
15. The Defining Issues Test is also referred to as DIT and DIT-2.\par
17. J.R. Rest, Development in Judging Moral Issues (1979).\par
(medicine, dentistry, law, nursing, and accounting). 19

1. How the DIT-2 Measures Moral Judgment

The DIT-2 consists of five story dilemmas, each of which uses the following procedure. First, the respondent recommends a course of action for the central character. For example, in the Famine dilemma (the DIT-2 version of the famous Heinz dilemma), respondents must recommend whether or not Mustaq should steal food from a rich man in order to save the lives of his family. The rich man has been hoarding food in order to sell it later at a huge profit when prices have gone up. At the same time, Mustaq’s family has been trying everything to get adequate food, but they are near starvation. Hence, Mustaq’s choice is to either steal the food, or his family members might die.

The test then requires respondents to rate the importance of twelve specific reasons that might lie behind their recommendation of what action Mustaq should take. Note that the reasons, not the action itself, determine how morally advanced the person’s moral reasoning is. The central purpose of the test is to assess moral reasoning, not intended actions, though the results are correlated in expected ways with action recommendations. The twelve specific reasons used in each of the DIT stories come originally from the transcripts of hundreds of in-depth interviews in which people discussed similar dilemmas and responded to interviewer probes. Thus, the reasons reflect the types of reasons people spontaneously generate when considering how to act in the specific dilemma situations.

Each of the twelve reasons reflects a specific category of moral rationale, some of which are better reasons than others. For example, in the Famine dilemma, a concern that Mustaq might get caught if he steals the food reflects a concern for his own welfare. Of course, Mustaq’s physical well-being is important to his family, but if this reason is ranked as more important than more basic moral considerations then it is likely that the reasoning reflects a self-focused concern for one’s own welfare. Other reasons reflect a concern for pleasing his family, or other people close to him, or for living within a system and doing what the law requires. Such reasons are important and understandable—we all use them at times. However, they are inadequate as moral justifications for actions. For

example, pleasing other people or even obeying the law, can constitute doing an unjust thing.20 As many western philosophers have pointed out, "the moral point of view" transcends self-, other-, group-focused, or law-focused reasons for action. When we say "that's wrong" we mean wrong in some global, universal sense, not just "I, my friends, my group, or society do not approve of that." Thus, on the DIT, some of the twelve reasons reflect abstract universal principles such as justice, the ultimate value of all human life, the sanctity of human personhood. Such reasons reflect "the moral point of view" that applies equally to all people.21

An example of a principled reason on the DIT-2 version of the Famine dilemma is a concern for whether laws are getting in the way of the most basic claim of any member of a society. The most basic claim of any member of a society might well be the right to life itself. Property and money are certainly important, but life is more important. The value of property and money derives from the value of human life. Thus, if the law against stealing causes people to starve to death, then things have gone badly wrong morally; when property and money are more important than human life, society is morally problematic. So the moral point of view would certainly place very high value on principled (also called "postconventional") considerations like whether laws are getting in the way of the most basic claim of any member of a society.

The test measures the importance a person places on postconventional reasoning by looking at how highly he or she ranks the reasons that reflect such postconventional reasoning. Thus, the main score, the P-Score, reflects the relative dominance of the above kind of reasoning (called "principled reasoning" or "postconventional reasoning") compared to self-, other-, or group-oriented reasoning. In other words, higher P-Scores reflect more sophisticated, more morally adequate moral reasoning.

2. Validity of the DIT

Rest summarizes a large body of evidence that supports the validity of the DIT using six separate validity criteria.22 One of the six

22. J.R. REST, D. NARVAEZ, M.J. BEBEAU & S. THOMA, POSTCONVENTIONAL
criteria that the DIT predicts is ethical and unethical behaviors. For example, auditors with higher P-scores were less likely to concede to a client's request when there was an auditor-client conflict and were more likely to disclose sensitive audit findings even under conditions of retaliation by management. In medicine, orthopedic surgeons with few or no malpractice claims per year had higher P-scores. Other examples supporting the validity of the DIT focus on students' cheating behaviors, workers' whistle blowing behaviors, nurses' decisions about medical care, and clinical performance ratings of medical interns. Evaluated in full, the results support the claim that the DIT P-score is a significant predictor of ethically related behavior.

III. GENDER DIFFERENCES IN MORAL JUDGMENT?

Law and its institutions are unmistakably bound up in justice-oriented abstract thinking. During the 1980s, legal academics began to observe more closely the slowly increasing numbers of women in American law schools. Because of the supposed justice focus in Kohlbergian measures of moral judgment, early discussions suggested that Kohlbergian measures might "downscore" females, resulting in lower measured moral judgment for females than for males. Gilligan argued that women reason morality in terms of "caring" instead of justice, and that they focus on personal relationships more than on abstract principles. Teachers and students of law, as well as sociologists, realized that this would have potent implications in legal education and practice.

While early analyses sometimes supported the prediction that females would have lower moral judgment scores than males, it was


26. REST, supra note 22, at ch. 4.

27. C. GILLIGAN, IN A DIFFERENT VOICE; PSYCHOLOGICAL THEORY AND WOMEN'S DEVELOPMENT (1982).

soon shown that the lower levels of education among women were the true determining factor. Further, Walker found evidence that those with high levels of principled reasoning were using both care reasoning and justice reasoning in an integrated manner. This is consistent with the last-published position of Kohlberg that argued that principled moral thinking reflects both justice reasoning and care reasoning. Thus, it seems likely that women in our sample would score as high as men on the DIT, even if they tend to be reasoning from the care orientation.

Meta-analysis of fifty-six studies using the DIT supports this claim; overall, women tended to score slightly higher (not lower) than men, although the gender effect was very small, accounting for less than half a percent in the variance of P-scores. More recently, Rest et al. argue that the evidence shows "that sex is a trivial variable in accounting for DIT variance." Based on these findings and the gender differences in medical, veterinary, and dental students that tended to favor women, we expect that if there is a gender difference in moral judgment among first year law students, it will favor females.

30. L.J. Walker, B. de Vries & S.D. Trevethan, Moral Stages and Moral Orientations in Real-Life and Hypothetical Dilemmas, 58 CHILD DEV. 842 (1987); M.J. Bebeau & M.M. Brabeck, Integrating Care and Justice Issues in Professional Moral Education: A General Perspective, 16 J. MORAL EDUC. 189 (1987); B. Puka, Toward the Redevelopment of Kohlberg’s Theory: Preserving Essential Structure, Removing Controversial Content, in Handbook of Moral Behavior and Development: Vol. 1, Theory, at 373–93 (W.M. Kurtines & J.L. Gewirtz eds., 1991) (Similarly, Puka has argued that principled reasoning that reflects principles such as caring or utilitarianism will result in high moral judgment scores on Kohlberg’s interview measure of moral judgment. The same argument can be made for the DIT, which was constructed using the reasoning of subjects responding to Kohlberg’s interview dilemmas).
33. REST, supra note 22, at 116.
IV. POSTCONVENTIONAL MORAL REASONING

Studies have demonstrated that high levels of postconventional reasoning reflect high valuation of other persons, commitment to treating all people fairly, and respect for human dignity. Research on attitudes toward human rights shows that those with high postconventional moral reasoning have more positive attitudes toward the human rights of unpopular or disadvantaged groups, even over and above the level predicted by political ideology. Additionally, Long's study found that lawyers in public interest practice had significantly higher levels of postconventional reasoning than did those in private practice. Thus, it seems likely that the importance of work in public interest or altruistic areas of legal practice, judged by law students, is a significant predictor of moral judgment scores. Based on several studies, we expected that political liberalism and moral judgment would be correlated. Finally, based on the work of Narvaez, et al. and McNeel, et al., we expected that both political ideology and preference for altruistic law practice would add significant power when predicting moral judgment.

V. EXPECTED CHANGES DURING THE FIRST YEAR OF LAW SCHOOL

A. Changes in Moral Judgment in Professional/Graduate School

While significant and strong growth in moral judgment during the

38. Narvaez, supra note 35; McNeel, supra note 35.
undergraduate years is common, it is uncertain whether such growth
typically continues in graduate or professional school.
Graduate/professional students typically begin at much higher moral
judgment levels than college students. Therefore, there is less "room"
for growth\footnote{Moral Progress has been defined "the growing awareness of how people
interrelate to each other through laws, rules, roles, and institutions of society" and the
ability to exercise judgment based on moral principles. REST, \textit{supra} note 22. This definition
was used to describe the movement from conventional to postconventional thinking in the
overview of this book.} and a "ceiling effect" may minimize their growth.

The limited research on the growth in moral judgment of
graduate/professional school students supports the expectation that a
typical graduate/professional school experience will not be associated
with growth in moral judgment. Based on several of their own
longitudinal studies, Self and Baldwin conclude that both medical
school and veterinary school students show a "failure to progress in
their moral reasoning and moral development over the four years" of
their education.\footnote{D.J. Self \& D.C. Baldwin, Jr., \textit{Moral Reasoning in Medicine}, in \textit{MORAL
DEVELOPMENT IN THE PROFESSIONS: PSYCHOLOGY AND APPLIED ETHICS}, at 147–62
(J.R. Rest \& D.F. Narvaez eds., 1994).} Similarly, in a cross-sectional study, Bebeau reports
that, prior to implementing an ethics curriculum in the Dental School
program at the University of Minnesota, students completing their
third year were no different in moral judgment than students
beginning their first year.\footnote{M.J. Bebeau, \textit{Influencing the Moral Dimensions of Dental Practice}, in \textit{MORAL
DEVELOPMENT IN THE PROFESSIONS: PSYCHOLOGY AND APPLIED ETHICS}, at 121–46.}
While results such as these may be
discouraging, we will discuss evidence later in this article that ethics
interventions in graduate/professional programs can have powerful
effects. Nevertheless, we expected no significant mean changes in our
law students' moral judgment scores across their three years of law
school.

\textbf{B. Method and Research Instruments}

\textit{1. The Defining Issues Test, Revised (DIT-2)}

As described in the introduction, on the DIT-2 respondents must
rate how strongly they favor a given course of action for the central
character in each of five story dilemmas. For a given story, after they
make this action rating, they proceed to rate the importance of twelve
reasons that might stand behind their preferred action choice. Finally,
the students rank order their four most important of the twelve

\footnote{40. D.J. Self \& D.C. Baldwin, Jr., \textit{Moral Reasoning in Medicine}, in \textit{MORAL
DEVELOPMENT IN THE PROFESSIONS: PSYCHOLOGY AND APPLIED ETHICS}, at 147–62
(J.R. Rest \& D.F. Narvaez eds., 1994).}
reasons. The measure of moral judgment used is the P-score,² the classical measure for this test. P-Score reflects the relative importance given to principled (postconventional) reasons, as opposed to other morally less adequate reasons. Additionally, a more recent DIT moral judgment measure, the N2 score, showed highly similar results—this paper will report only P-score results.

2. Job Importance Questionnaire

The test instrument also asked students, "Upon graduation, which of the following areas of work would be of interest to you?" The students rated each area from "1 = great importance" to "5 = no importance", and scores were reversed for analyses, so that higher scores would reflect higher job importance. The areas of legal work we originally considered to be "altruistic" included: poverty/legal aid, international human rights, battered women's coalition, environmental organization, civil rights/discrimination, governmental agency, and the public defender's office. The remaining areas of legal work represented were corporate, intellectual property, general practice, prosecutor's office, and family law practice.

We were interested in seeing if the areas of law practice we conceived as altruistic would cluster together in students' rating of importance, as they would if students tended to see them as altruistic. To examine this concern, we analyzed the first year job importance ratings using a multivariate statistical procedure that identifies common "factors" or clusters in the data (Principal Components Analysis). The results of this analysis showed that five of the areas we had conceived as altruistic did cluster together, "loading" on the same factor: poverty/legal aid, international human rights, battered women's coalition, environmental organization, and civil rights/discrimination. Only work for a governmental agency and in a public defender's office did not cluster with this altruistic group. For purposes of the analyses described later, we created a measure of the extent of each student's interest in altruistic law practice by averaging his or her ratings of the five law practice areas described above.

3. Political Ideology

This dimension was assessed using a five-point single item rating with the response options "very liberal," "somewhat liberal," "neither

---

² REST, supra note 22. The P-score is percent principled reasoning, alternatively stated as percent post-conventional reasoning.
liberal nor conservative,” “somewhat conservative,” and “very conservative.” This approach is similar to that used by other researchers to assess this dimension and has been shown to be a valid measure of political ideology.3

C. Participants and Procedure

1. Beginning First Year Law Students

The Fall 1999 entering class at the University of Minnesota School of Law responded to the revised Defining Issues Test (DIT-2) and the job importance questionnaire during their orientation. One hundred seventy students (81.0% of the entering class) provided data, 53.7% male and 46.3% female, with a mean age of 24.7 (range=20-57). As to educational level, 90.9% had no degree higher than a bachelor’s degree or in some cases a professional degree. With regard to their political views, 19.6% self-identified as “very liberal,” 35.1% as “somewhat liberal,” 13.7% as “neither liberal nor conservative,” 23.2% as “somewhat conservative,” and 8.3% as “very conservative.”

2. Beginning Second Year Law Students

At the beginning of the second year, all second year students received a letter asking them to retake the DIT-2, the job importance questionnaire and the political rating. Sixty-one students (46.6% were male) completed questionnaires, fifty-four from the previous sample (31.8%) plus seven who had not taken the questionnaires previously. The second year group was comparable to the first year group, except that it included a minor overrepresentation of females and the sample was slightly more politically liberal than the first year sample. The general comparability of the two samples is confirmed by the fact that when first year scores were examined as a function of whether or not students took the second year retest, none of the variables (including job importance variables) showed any significant differences.

3. Ending Third Year Law Students

Near the end of the last year, all third year students received a letter asking them to retake the DIT-2 job importance questionnaire and political rating. In addition, they also rated the same twelve jobs

43. Narvaez, supra note 35.
in response to the following question: "Upon graduation, in which of the following areas of work will you most likely be working?" Finally, they ranked the four most likely areas in which they would practice law after graduation. Sixty-four students (51.6% were male) completed questionnaires, forty of whom had also taken the instruments in their first and second years. This third year group showed no significant differences from the first year group on any of the variables—they were very comparable.

VI. RESULTS

A. Moral Judgment in Beginning Law Students: Addressing the Unethical Lawyer Stereotype

1. Moral Judgment of Beginning Law Students

Table 1 shows average moral judgment scores (DIT P-score) for this study and studies of several other professional groups. Our first year law students compared favorably to other first year professional groups; their combined mean P-score of 49.6 was higher than all but one of the other first year professional school samples. In general, the data disconfirmed the "unethical lawyer" stereotype, at least as it applies to first year students.

2. Gender Differences

Table 1 also shows that our females had significantly higher P-scores than our males, reflecting a similar tendency in two of the other three studies which examined gender in first year professional students. This six-point difference between the sexes reflects a moderately strong gender effect. It appears that the group of law students least likely to fit the unethical lawyer stereotype is females.

B. Moral Judgment Across the Years of Law School

Forty students took the instruments all three years, providing only a small sample for longitudinal comparisons. The longitudinal

---

44. According to the results of the experiment, when evaluating the combined P-score of 49.6, S.D. = 14.86.

45. The results of the female and male tests were 53.1 vs. 47.0, F(1,162)=7.35, p=.007, respectively.
analyses show little in the way of significant differences; this is probably due partly to low statistical power because of small sample size. However, there were non-significant trends in the longitudinal data that reflected significant differences in the cross-sectional comparisons (the latter had greater power due to much larger sample size). Thus, we report cross-sectional data in Table 2.

1. Moral Judgment and Gender

To begin, the results in Table 2 show that in each year, female law students had significantly higher moral judgment scores than did male law students.\(^4\) The mean differences of five to eight points are substantial and statistically significant. There was also a non-significant trend for male P-scores to become lower across the three years. However, when we examined the longitudinal data set for only the first two years, we found a significant effect: females showed an increase while males showed a decrease in moral judgment scores.\(^4\) This growth in the females' moral judgment scores was largely due to much sharper growth in moral judgment among the female students whose first year P-scores were in the lower third as compared to the remaining females.\(^4\)

In the second year of this two-year longitudinal data set, female law students averaged P-scores ten points higher than males,\(^4\) a rather dramatic difference. Females who begin law school with low P-scores tended to grow in moral judgment. Thus, in summary, we have some limited evidence that postconventional reasoning decreases across the years of law school for males, who already begin at a lower level than females, while in contrast, postconventional reasoning may increase for females. This data definitely does not support the unethical lawyer stereotype for females, though the results are arguably less favorable for males.

2. Moral Judgment and Political Ideology

For this analysis, liberal and very liberal students were clustered together, as were conservative and very conservative students. The second section of Table 2 demonstrates that, as expected, political views were significantly and strongly associated with moral

\(^4\) The applicable results in Table 2 are as follows: (Year 1: F(1,162)=7.65, p=.006; Year 2: F(1,58)=4.48, p=.039; Year 3: F(1,62)=4.52, p=.037).

\(^4\) The results of the longitudinal data for only the first two years are as follows: F(1,51) = 4.60, p = .037.

\(^4\) The results are as follows: F (2,24) = 3.72, p = .039.

\(^5\) 55.0 v. 44.9.
In the first year, being liberal politically was associated with high P-scores (averaging about fifty-four). In contrast, being politically conservative correlated with quite low P-scores (averaging about forty-one). The small number of very conservative first year law students had exceptionally low P-scores, averaging about thirty-four, which is approximately the level typical of incoming college freshmen. As average scores in Table 2 show, the tendency for liberalism to correlate with P-scores was reflected in the second and third year data as well. Thus, liberal and conservative law students did differ rather sharply in their level of moral reasoning, with the conservative students (especially the very conservative) being the ones most likely to fit the unethical lawyer stereotype. As also can be seen in Table 2, changes in moral judgment scores across the three years were minimal for the politically liberal students, whereas the conservative students' moral judgment tended to drop across the three years. Thus, law school education was not associated with changing moral judgment, except that the politically conservative students seem to have decreased somewhat in moral judgment.


Based on students' judged importance of altruistic law practice, we classified them as having either a low, moderate or high interest in altruistic law practice. Table 2 shows how the moral judgment scores of these three groups of students varied across the three years. As predicted, higher judged importance of altruistic law practice was associated with higher moral judgment scores in the first and third years of law school; however, the second year data showed no significant differences. Finally, there were no obvious, clear, or consistent trends in moral judgment across the three years of law school.

VII. PREDICTORS OF MORAL JUDGMENT IN LAW STUDENTS

It is clear from the above results that gender, political ideology, and preference for altruistic law practice all predict law students' moral judgment. The association of political views to moral judgment yielded: $F(2,164) = 15.62, p = .000$. The results were as follows: $F(2,52) = 5.51, p = .006, F(2,61) = 8.12, p = .001$. The small number of students in the middle political category mitigates against any statements about their trend across the three years. As compared to $F(2,51) = .564$.
moral judgment scores. However, it is useful to ask whether each is an independent predictor. In particular, it would be interesting to know whether gender predicts moral judgment, independent of political ideology and preference for altruistic law practice. When female students arrive as new law students they are different from male students, but are these differences independent of political ideology and preference for altruistic law practice?

To answer this question, we used our first year data and a standard multivariate statistical technique known as “multiple regression,” which asks how well we can predict an outcome variable (P-score in our case) from one or more predictor variables. Table 3 shows the results from the analyses we describe below. First, we predicted P-score on the basis of sex, since sex is a significant predictor of P-score. Then we added the other two variables as predictors (political ideology and preference for altruistic law practice) to see if taking those variables into account allow greater accuracy in predicting P-scores. The answer for first year law students was a resounding “yes.” However, even though we achieved more accurate prediction of P-scores by taking into account all three predictor variables, we found that sex was no longer a statistically significant predictor. In contrast, political ideology and preference for altruistic law practice were significant predictors, and in fact they were of equal importance in predicting P-scores. Therefore, it appears that the reason first year female law students are higher in moral judgment than males is that they are more politically liberal and have a stronger preference for altruistic law practice.

Similar analyses for the second year students show that neither political ideology nor preference for altruistic law practice were significant predictors of moral judgment. Finally, analyses for third year students reveal that, as in the first year, sex dropped out as a significant predictor of moral judgment. However, while political ideology was a significant predictor variable, importance of altruistic law practice was not.

In summary, across the years in law school, gender is a significant predictor of moral judgment, but only because females are more politically liberal. Finally, something seems to be happening during these years in law school to diminish the importance of preference for altruistic law practice as a predictor of moral judgment levels.

55. The multiple R increases from .205 when predicting moral judgment with gender only to .470 when using all three predictors. This represents a large and significant increase in predictive power.
A. Moral Judgment and the Unethical Lawyer Stereotype

While moral judgment is only one aspect of morality, our results do not confirm the unethical lawyer stereotype. Our beginning law students, especially women, had DIT moral judgment scores averaging about forty-nine, as high as or higher than other comparable professional groups in graduate school. However, there is clearly room for growth, as other professional groups have been able to attain higher moral judgment, sometimes noticeably higher. The work of Bebeau with dental students and Hartwell with law students shows that an intentionally constructed curriculum can function to enhance the moral judgment of its graduate students.

VIII. Women Law Students' Levels of Moral Judgment as Compared to Men

As discussed in the introduction, the overall research on levels of moral judgment finds gender differences of little or no significance. In our study, however, first year women showed significantly higher P-scores than did men. In the larger cross-sectional samples, this difference was maintained and even increased somewhat in the second and third years. In the second year longitudinal sample, females showed an increase in P-score while males showed a decrease. This growth in females was largely due to much sharper growth in moral judgment among the female students whose first year P-scores were in the lower third than among the remaining females. By the beginning of the second year, female law students averaged P-scores ten points higher than males. Thus, in our sample, the women continued to show higher levels of moral judgment than did the men. As Table 1 shows, these results are consistent with those found for medical and veterinary students. Our results are also consistent with a recent Australian study of seven hundred law graduates. In the

56. S.P. McNeel & E.C. Vozzola, Moral Maturity in College and University Faculty: Reasoning and Action Choices in Moral Dilemmas, Paper Presented at the 28th Annual Conference of the Association of Moral Education, University of Illinois (Nov. 7-10, 2002) (finding that the moral judgment average of Christian college faculty was 54.8 while the moral judgment average of state university faculty was approximately 51.1); Rest, supra note 13 (finding that the moral judgment average of moral and political philosophy graduate students averaged 65.2).

57. Bebeau, supra note 41.


59. This conclusion does not however apply to dental students, though our second and third year data add detail beyond that provided in those studies.
study of the recent graduates' perception of values in legal dilemmas with competing moral values, the authors state: "[t]he apparent fact that women choose values positions which are significantly different from those of men in many difficult professional environments and that these positions appear on the whole to be 'better' than those of males, ought to give particular concern to the male-dominated, organized profession."\textsuperscript{60}

Further research with groups of professional students should examine possible explanations for the obtained gender differences and consider how male students can be encouraged toward the pattern shown by the female students.

IX. LEGAL EDUCATION AND MORAL JUDGMENT

Only minimal data exists relevant to whether and how law students' moral judgment levels change during their law school experience. Willging and Dunn reported a very small, insignificant longitudinal increase in P-score from the beginning to the end of the first year of law school.\textsuperscript{61} The only other relevant data comes from cross-sectional comparisons of various samples but they suggest that moral judgment decreases across the three years of law school. The data from Willging and Dunn and from the present study suggest an average P-score of about forty-nine or fifty for beginning law students. The only data on second-year law students comes from Hartwell; describing the P-scores of students beginning a Professional Responsibility course, he states, "the mean score was 47.8, typical of second-year students."\textsuperscript{62} Finally, Hartwell states that "over the years, the mean for the 250 or so mostly third year law students I have tested is about 43."\textsuperscript{63} The results from the males in our samples support this pattern of slightly decreasing moral judgment during the three years of law school. While this data is imprecise and extremely tentative,\textsuperscript{64} in combination with the "unethical lawyer" stereotype, it does suggest


\textsuperscript{63} Id.

\textsuperscript{64} T.D. COOK & D.C. CAMPBELL, \textit{QUASI-EXPERIMENTATION: DESIGN AND ANALYSIS ISSUES FOR FIELD SETTINGS} (1979). This data is cross-sectional and highly susceptible to a "selection" artifact, in which group differences reflect not longitudinal change but only dropout or selection of different subgroups.
the hypothesis that something may happen in law school to reduce the moral judgment level of law students, especially of males. One other limited longitudinal study exists regarding this effect on law students; in her study, Chapman did not find any correlation between gender and involvement in altruistic activities in first year law students.\textsuperscript{65} We clearly need further and more complete longitudinal studies to examine whether legal education in general positively, neutrally, or negatively affects students’ moral judgment, and whether our gender differences can be replicated.

Several significant studies purport to demonstrate that law school has little effect on beliefs, attitudes and interests among law student.\textsuperscript{66} In light of the failure of legal education to address many of the moral concerns of newly graduated lawyers and in light of the problematic relationship between lawyers’ ethics and morality, these studies raise the question of whether it is possible for legal education to raise the moral judgment of law students.\textsuperscript{67}

In the absence of a specific intervention, one might not necessarily expect legal education to lead to enhanced moral judgment. This is suggested by data from other fields. For example, cross-sectional P-score data from the University of Minnesota dental school showed that, prior to an ethics intervention, “our technically oriented dental curriculum had little impact on moral reasoning development.”\textsuperscript{68} Yet, after implementing an ethics curriculum, a longitudinal study found that senior dental students had higher P-scores than they did as freshmen. Dentists are faced with ethical issues similar to other health care providers. While law and morality are both more intimately connected with guiding behavior than dentistry, and the adversarial nature of the practice of law makes it different from the health care professions, both professional schools have highly technical, and often amoral approaches to their subject matter.

Legal education has been subjected to criticism because of its


\textsuperscript{67} See Granfield & Koenig, \textit{supra} note 4.

\textsuperscript{68} Bebeau, \textit{supra} note 41, at 131.
purported amoral character. Cramton and others following his lead have argued that the absence of moral considerations in the standard legal pedagogy encourages or fosters a “moral relativism tending toward nihilism, a pragmatism tending toward an amoral institutionalism, a realism tending toward cynicism, an individualism tending toward atomism, and a faith in reason and democratic process tending toward mere credulity and idolatry.”\(^6\) A classic, if apocryphal, story concerns the first year student, discussing the outcome of a particular contracts case. The student asks the professor: “Is that just?” and the professor replies, “We are here to study the law, we are not concerned with justice.” Others, such as Menkel-Meadow, argue that since we cannot avoid conveying a moral stance in our teaching, we should be conscious about fostering moral development in our students.\(^7\)

If one places these criticisms within the Kohlbergian moral context, one might make the claim that as lawyers, the ethics of advocacy are at best a form of conventional moral judgment and that legal education may, in fact, make our students reason at a lower moral level than we might prefer. If the majority of lawyers use the professional norms as a default position, then the rules become the norms to be maintained. The following of professional rules, without any further moral justification, is similar to obeying an unjust law without giving thought to the morality of the action. While following the law or obeying professional rules as a default may be morally correct in many, if not most cases, Granfield shows that mere role governed (i.e. rule governed) morality does not prepare law students for the kind of ethical and moral dilemmas that they will face in practice.

X. ETHICS INTERVENTIONS IN LAW SCHOOL

We have found that as a group, the moral judgment of law students remains constant over the first year of law school, although the scores for women rise slightly while the men’s scores fall. If law students’ moral judgment drops during their education, remains constant, or even rises slightly, we would believe there to be a case for implementing law school courses with a demonstrated ability to enhance moral judgment level. This possibility led Willging and Dunn

---

69. Cramton, supra note 7, at 262.
to examine the impact on P-scores of a traditional lecture course in ethics and professional responsibility. They found no significant effect whatsoever, as can be seen in Table 4. In contrast, Hartwell found that the teaching of ethics and professional responsibility in small, highly interactive discussion seminars powerfully influenced P-scores. Hartwell’s results are consistent with other ethics intervention studies that use intense, highly interactive approaches in quarter- or semester-long courses. Each of the studies cited in Table 4, except Willging and Dunn, used a non-equivalent control group design, in which comparable classes were taught without the key aspects of the ethics intervention. In each case, the control groups showed no significant change. Further, in two of these studies, a follow-up experiment conducted four months later showed that the P-score gains were maintained or even enhanced.

It is also important to note that the effect sizes reported in Table 4 are large to very large and reflect more powerful approaches to enhancing moral judgment than the alternative teaching methods assessed in the moral education literature. For example, Penn shows that his average effect size is more than twice as powerful as that obtained using the typical educational approach of dilemma discussion. It seems that we have available powerful methods for enhancing moral judgment levels, and that these can be implemented in the content of existing courses.

There is certainly no consensus in the legal academy about whether professional responsibility courses should aspire to have any effect on students’ moral judgment or should simply teach the professional rules and norms, or the so-called law of lawyering. Some teachers, such as Venter and Menkel-Meadow, believe that we should teach moral concepts in these courses and that we should aim to develop students’ moral judgment. Others, like Schneyer, while not embracing an unalloyed “hired gun” approach, have questioned the

71. Willging, supra note 61.
72. Hartwell, supra note 58.
74. Willging, supra note 61.
75. Hartwell, supra note 58; McNeel, supra note 73.
76. Penn, supra note 73.
77. C.M. Venter, Encouraging Personal Responsibility—An Alternative Approach to Teaching Legal Ethics, 36 LAW & CONTEMP. PROBS. 287 (1996); Menkel-Meadow, supra note 70.
ability of the legal professoriate to consistently define and teach moral judgment. The results from both Hartwell and McNeel question this view. Neither are technical experts in philosophical ethics, but both are experienced teachers who clearly have learned a great deal in the practice of teaching. Both seem to have begun teaching the courses evaluated in Table 4 simply in a desire to apply what they do know and can learn from the literature.

Further, DIT data on practicing lawyers has potential relevance here. We are aware of data from only three sources. First, Ernest & Bebeau found a mean P-score of 48.3 for eighteen lawyers in a single law practice in the northern Midwest. This mean is comparable to the reported mean for practicing physicians as well as to that for entering law students described above. Second, in an attempt to get comparative data for accountants, Scofield surveyed a random sample of 1,000 lawyers. He used the three dilemma version of the original DIT. His response rate was 18.9 percent, with one hundred sixty-nine useable questionnaires. Scofield found a somewhat lower mean P-score for his lawyer sample of 46.45, but he determined that women scored higher than men. Third, Long studied the comparative P-scores for public interest and private firm lawyers. Long sent 300 requests to participate to attorneys. She obtained 119 viable DITs with the following results: private sector attorneys had a mean P-score of 47.07, consistent with Scofield’s results, while public sector attorneys had a mean P-score of 53.87, significantly higher, but within the expected range.

In summary, we should be able to increase moral judgment in law students by appropriate interventions. Paradoxically, while lawyers’ ethics are under attack, their connection with justice and the arguably altruistic nature of at least some law practice suggests higher levels of moral judgment. Studies of lawyers using the DIT may also be

79. Hartwell, supra note 58; McNeel, supra note 18.
81. This group had a S.D. = 13.8; range = 30–70.
83. S.D. = 15.42.
84. Long, supra note 36.
86. S.D. 12.35.
important in identifying some of the sources of their low moral esteem and trust.

XI. CONCLUSION

Our data reveals that there is a significant positive correlation in this group of law students between gender and moral judgment in the first year of law school. We have also found some correlations among moral judgment, gender, and altruistic law practice. While there have been some shifts in the data over three years, we can conclude that law school does not have a significant effect on the moral judgment of law students. While we should be pleased that the law school experience itself does not lessen the moral judgment of law students in the aggregate, this result should also leave us with some concerns. As the DIT data suggest, moral judgment scores do have predictive value in ethical behavior. The authors believe that, at a minimum, we should be enabling our students to engage in morally reflective practice. If we are able to increase moral judgment and high level moral reflection through specific interventions of the kind described above, we should do so. We need to examine the way in which we teach professional responsibility as well as the way in which we convey the underlying assumptions of the role of moral reasoning in the work of the lawyer. The one thing that we should hope to avoid when it concerns moral issues in practice is the use of formal rules of professional conduct as an unexamined default position. While an increase in the ability of lawyers to engage in practiced moral reflection and judgment is not a panacea, it may be a part of the answer to the futility of the past twenty years of advocacy of moral activism among lawyers.

The results of this study leave many questions unanswered. There are few studies of lawyer scores using the DIT, and, except for Long, no large-scale studies with significant and complex data on lawyer demographics or practice area. Hartwell has shown that moral judgment can be improved by interventions such as small intensive seminars or clinics. 87 Ethics and professional responsibility courses are typically taught as large lecture courses, and as Willging and Dunn have shown, these courses have no effect on the ordinary moral judgment of law students. 88 Therefore, the authors suggest that we need to follow graduates into the profession to see if practice itself has

---

87. Hartwell, supra note 58.
88. Willging, supra note 61.
an effect on lawyers' moral judgment. We should try to discover, for example, whether law firm structure has the same negative association with moral judgment as does accounting firm structure. For example, Ponemon found that high position and length of experience in accounting firms was negatively correlated with mean DIT score; we should continue to conduct similar studies regarding the practice of law. However, until some of these questions are answered, we can still advocate for the positive project of increasing law students' moral judgment.

### Table 1

Average Moral Judgment of Beginning Law Students and of Other Beginning Professional Student Groups

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>P%</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year Law Students</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This study Overall</td>
<td>164</td>
<td>49.61</td>
<td>14.86</td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>88</td>
<td>47.00</td>
<td>16.10</td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>76</td>
<td>53.10</td>
<td>12.39</td>
<td></td>
</tr>
<tr>
<td>Willging &amp; Dunn (1981)¹</td>
<td>63</td>
<td>49.50</td>
<td>12.36</td>
<td></td>
</tr>
<tr>
<td><strong>First Year Medical Students</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Husted (1978)</td>
<td>488</td>
<td>50.20</td>
<td>N.A.</td>
<td></td>
</tr>
<tr>
<td>Givner &amp; Hynes (1983)</td>
<td>108</td>
<td>48.70</td>
<td>N.A.</td>
<td></td>
</tr>
<tr>
<td>Self &amp; Olivarez (1994)</td>
<td>97</td>
<td>44.60</td>
<td>N.A.</td>
<td></td>
</tr>
<tr>
<td>Self &amp; Olivarez (1993)²</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>312</td>
<td>41.80</td>
<td>N.A.</td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>314</td>
<td>47.20</td>
<td>N.A.</td>
<td></td>
</tr>
<tr>
<td><strong>First Year Veterinary Students</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self, Baldwin, Olivarez &amp; Shadduck (‘93) 68</td>
<td>45.10</td>
<td>N.A.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self, Pierce &amp; Shadduck</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(in press) Males</td>
<td>38</td>
<td>39.40</td>
<td>N.A.</td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>67</td>
<td>43.70</td>
<td>N.A.</td>
<td></td>
</tr>
<tr>
<td><strong>First Year Dental Students</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bebeau, Rest &amp; Yamoor (1985)</td>
<td>40</td>
<td>47.20</td>
<td>13.50</td>
<td></td>
</tr>
<tr>
<td>Bebeau &amp; Brabec (1987)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>593</td>
<td>47.20</td>
<td>12.64</td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>184</td>
<td>47.60</td>
<td>12.97</td>
<td></td>
</tr>
<tr>
<td><strong>Graduate Level Accounting Students</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iceman, Karcher &amp; Kennelley (1991)</td>
<td>41.80</td>
<td>N.A.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ponemon (1993)</td>
<td>38.60</td>
<td>N.A.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. These data are for 63 students who also completed a follow-up testing at the end of their first year of law school. An additional 70 students who did not complete the end of the year test had a near-identical mean of 50.6.
2. This is a combined group of medical and veterinary students.
Table 2

Average Moral Judgment (P-Score) of Law Students
Across Three Years of Law School

<table>
<thead>
<tr>
<th>Year in Law School</th>
<th>Ns for the 3 Years</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Moral Judgment (P Score) by Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Ns</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>87, 27 &amp; 33</td>
<td>47.10</td>
<td>45.20</td>
<td>44.90</td>
</tr>
<tr>
<td>Females</td>
<td>77, 33 &amp; 31</td>
<td>53.40</td>
<td>53.50</td>
<td>53.30</td>
</tr>
</tbody>
</table>

Moral Judgment (P Score) by Political Ideology

<table>
<thead>
<tr>
<th>Political Ideology</th>
<th>Ns</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liberal</td>
<td>91, 43 &amp; 38</td>
<td>54.60</td>
<td>52.60</td>
<td>53.80</td>
</tr>
<tr>
<td>Neither</td>
<td>23, 4 &amp; 9</td>
<td>47.80</td>
<td>57.50</td>
<td>51.80</td>
</tr>
<tr>
<td>Conservative</td>
<td>53, 13 &amp; 17</td>
<td>41.40</td>
<td>38.20</td>
<td>36.70</td>
</tr>
</tbody>
</table>

Moral Judgment (P Score) by Interest in Altruistic Law Practice

<table>
<thead>
<tr>
<th>Interest in Altruistic Law Practice</th>
<th>Ns</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>58, 18 &amp; 21</td>
<td>56.60</td>
<td>53.80</td>
<td>56.80</td>
</tr>
<tr>
<td>Moderate</td>
<td>45, 14 &amp; 22</td>
<td>49.90</td>
<td>51.10</td>
<td>45.20</td>
</tr>
<tr>
<td>Low</td>
<td>58, 22 &amp; 21</td>
<td>42.60</td>
<td>48.70</td>
<td>46.70</td>
</tr>
</tbody>
</table>
Table 3

What Predicts Moral Judgment (P-scores) of Law Students? Beta Weights for Two Multiple Regression Prediction Models

Model 1: Only Using Gender to Predict Moral Judgment

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Year in Law School</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First</td>
</tr>
<tr>
<td>Gender</td>
<td>.205 ***</td>
</tr>
</tbody>
</table>

Model 2: Using Gender, Political Ideology and Judged Importance of Altruistic Law Practice to Predict Moral Judgment

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Year in Law School</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First</td>
</tr>
<tr>
<td>Gender</td>
<td>.032</td>
</tr>
<tr>
<td>Political Ideology</td>
<td>.271 ***</td>
</tr>
<tr>
<td>Altruistic Law Practice Importance</td>
<td>.257 ***</td>
</tr>
</tbody>
</table>

Interpretive Notes:
Asterisks indicate significant predictors of moral judgment * = p < .10, ** = p < .05, *** = p < .01, The size of the beta coefficient indicates how important that predictor is; larger beta weights indicate more powerful predictors of moral judgment.

Ns for the three years were 155, 53 and 63 respectively.
Table 4

Results from Ethic Intervention Courses

<table>
<thead>
<tr>
<th>Student Group</th>
<th>N</th>
<th>Pre</th>
<th>Post</th>
<th>Change</th>
<th>S.D.</th>
<th>d²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law Students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Willging &amp; Dunn (1981)</td>
<td>41</td>
<td>52.20</td>
<td>52.80</td>
<td>.060</td>
<td>4.49</td>
<td>.04</td>
</tr>
<tr>
<td>Hartwell (1995)</td>
<td>78</td>
<td>45.30</td>
<td>56.90</td>
<td>11.60</td>
<td>N.A.</td>
<td>.77-.97³</td>
</tr>
<tr>
<td>MBA Students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penn (1990)</td>
<td>31</td>
<td>39.80</td>
<td>52.40</td>
<td>12.60</td>
<td>13.45</td>
<td>.94</td>
</tr>
<tr>
<td>College Students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penn (1990)</td>
<td>114</td>
<td>36.60</td>
<td>48.50</td>
<td>11.90</td>
<td>14.22</td>
<td>.84</td>
</tr>
<tr>
<td>McNeel &amp; Frederickson (1999)</td>
<td>114</td>
<td>42.0</td>
<td>50.7</td>
<td>8.7</td>
<td>12.54</td>
<td>.69</td>
</tr>
</tbody>
</table>

1. All studies except Willging & Dunn had non-equivalent control groups. None of the control groups show significant change.
2. Effect Size (d) = (Post—Pre mean)/Pre S.D. Rules of thumb for interpreting d: Small (.10-.39), Moderate (.40-.69), Large (.70-.99), and Very Large (1.00 and above).
3. These data combine results from three courses reported in Hartwell. Hartwell does not cite the S.D.s. However, it would be very unusual if the S.D. fell outside of the range of 12-15. If we assume S.D. = 15, then d = .77, and if S.D. = 12, d = .97. The effect is clearly strong or very strong.
4. This group did not include the teaching of formal logic.
5. This group included the teaching of formal logic.