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PROMOTING ETHICAL DEVELOPMENT AND PROFESSIONALISM: INSIGHTS FROM EDUCATIONAL RESEARCH IN THE PROFESSIONS

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I. INTRODUCTION

Generational shifts in individual priorities and market forces influencing the professions challenge us as educators to think carefully about what we can and must do to promote the public purposes, ideals and core values expressed by role models of professionalism. The general purpose of this article is to provide conceptual frames and a base of evidence that educators can use to craft educational programs to promote ethical development and professionalism that is meaningful and lasting.

Is educating for ethical development and professionalism a reasonable goal? I examine the bedrock of theory, research and curriculum experience drawn from efforts to educate ethically-reflective and -responsible professionals. This analysis shows that continually refined educational programs shaped by theories and grounded in evidence can foster an identity that is grounded in the public purposes, core values and ideals of a profession. In contrast, it is not uncommon to hear claims even from within a profession of an earlier "golden age of ethical behavior and civility." These assertions may derail a discussion and reinforce a sense of hopelessness about the fruitfulness of efforts to influence the ethical development and professionalism of the next generation. I argue that broad and deep understanding of the public purposes and core values of one's profession is essential to students and colleagues alike. Each profession has far-reaching obligations to educate and shape itself in ways that promote and optimize this kind of learning during and after professional school. In this paper, I focus on a bedrock of theory, experience and research from educating on personal and professional responsibility.

Nevertheless, I acknowledge that we as educators should not ignore evidence that today's applicants to professional school may be increasingly more self-focused[1] than applicants of earlier generations. We also err if we ignore market forces that seem to be usurping the practice of the learned

1. See JEAN M. TWENGE, GENERATION ME (2006), which documents a shift in the American character to a more self-focused, entitled generation of young people entering higher education.

professions and reducing them to commercial enterprises.[2] Witness, for example, the shift in language—doctors are commonly referred to as providers, patients as consumers or customers, health care services as commodities.[3] Clearly a particular profession's duty to maintain the public trust goes beyond the education of future professionals. Yet such education is an essential foundation for both entry to the profession and life-long professional development.

What might be done at the front end to address professional education's preparation of future colleagues, and also to create a foundation for on-going professional ethical development following formal schooling? Part I provides evidence for the urgency of addressing ethical development and professionalism in professions education. Part II discusses two domains (the development of ethical capacities,[4] and the development of professional behaviors) in which we as professions educators need to contribute to promote professionalism[5] that flows from a fully formed professional identity.[6] Part III summarizes insights gained from curricula designed and implemented to promote professional ethical development, and attends to the

2. *See* Fred Hafferty, *Measuring professionalism: A Commentary*, *in* MEASURING MEDICAL PROFESSIONALISM 81–306 (D.T. Stern ed., 2006). Hafferty points to the considerable challenge young physicians face in living up to professional ideals, when around them they see a health care system dominated by special interests and commercialism, when they see peers who make obscene amounts of money by enrolling patients in studies sponsored by drug companies, or when they feel the pressure to compromise time spent with patients in order to meet quotas set for their day's work. *See also* William F. May, *Money and the Professions: Medicine and Law*, 25 WM. MITCHELL L. REV. 75 (1999).

3. For a discussion of the commercial language that signals the shift from an other-centered to a self-centered profession, see Jordon Cohen, *Foreword* to MEASURING MEDICAL PROFESSIONALISM, *supra* note 2, at viii.

4. When I speak of promoting ethical development, I am referring to the development of four capacities (sensitivity, reasoning, motivation and implementation) that give rise to behavior. A behavior can be judged as consistent with professional norms, yet the individual may not have consciously decided to adhere to the norm—being moral without being ethical, i.e., having reflected upon those norms. The capacities are defined by J.R. Rest, *Morality*, *in* HANDBOOK OF CHILD PSYCHOLOGY, VOL 3: COGNITIVE DEVELOPMENT 556–629 (P.H. Mussen, J. Flavell & E. Markman eds., 4th ed. 1983) [hereinafter HANDBOOK OF CHILD PSYCHOLOGY].

5. In medicine, professionalism is defined as "a set of values, attitudes, and behaviors that results in serving the interests of patients and society before one's own." Barry, D., Cyran, E., & Anderson R.J., *Common Issues in Medical Professionalism: Room to Grow*, 108 AM. J. MED. 136, 136 (2000). Yet, judgments of actions as "professional or unprofessional" may simply reflect what has been referred to as "surface professionalism." *See* Hafferty, *supra* note 2. One problem in professional education is the lack of clear definition of professionalism. *See* Neil Hamilton, Assessing Professionalism: Measuring Progress in the Formation of an Ethical Professional Identity, 5 U. St. Thomas L.J. ### (2008).

6. I use the term "identity formation" not as the whole of morality, but as one of four capacities that give rise to morality. *See generally supra* note 4. Identity formation is a necessary, but not sufficient, condition for ethical and professional behavior. A failing of professionalism, however, can result from a deficiency in any one of the other capacities. Even a person with a fully developed professional identity may, on occasion, miss a moral problem, or fail to implement an effective course of action. When such a failing occurs, the professional may be judged by others as either unethical or unprofessional, or both. It is the observed behavior that is judged, and the terms "professional" and "ethical" tend to be used to characterize the person.

importance of the moral milieu in which professionals work and learn. Part IV offers general recommendations for building an educational environment that supports ethical development and professionalism that is deep and durable.

II. Evidence Supporting the Urgency of Addressing Ethical Development and Professionalism in Professions Education

A. Personality Traits

Recent studies suggest generational shifts in perceptions of self importance and individual priorities that present challenges for educators concerned with instilling in students a sense of responsibility toward others. For example, college freshmen have increasingly replaced the goal of developing a meaningful philosophy of life during college with a new interest in finding employment that provides a secure future.[7] Similarly, college students increasingly score higher than earlier generations on measures of self-esteem,[8] and on measures of individualistic traits,[9] which, in turn, are highly correlated with psychological measures of narcissism.[10] Recent cross-temporal meta-analyses have shown increases over time on narcissism scales,[11] suggesting generational shifts in feelings of entitlement and self-importance. Illustrative of one such generational shift, researchers[12] report that in the 1950s, twelve percent of respondents registered agreement with the statement on the MMPI[13] "I am an important person" whereas by the late 1980s, seventy-seven percent of female and eighty percent of the male respondents agreed with the statement.[14] The question of concern for

7. *See* John Pryor, Sylvia Hurtado, Victor B. Saenz, Jose Luis Santos & William S. Korn, The American Freshman: Forty Year Trends (2007).

8. Substantial increases have been reported between 1968 and 1994 using Rosenberg Self-Esteem Scale. Jean M. Twenge & W. Keith Campbell, *Age and Birth Cohort Differences in Self-Esteem: A Cross-Temporal Meta-Analysis*, 5 Personality and Soc. Psychol. Rev. 321, 338–39 (2001).

9. Jean M. Twenge, *Changes in Masculine and Feminine Traits Over Time: A Meta-Analysis*, 36 Sex Roles 305, 317–18 (1997).

10. Narcissism is described as self-love, based on self-image or ego. Applied to a social group, it may denote elitism or indifference to the plight of others. Medical narcissism is a defined as a need to preserve self-esteem leading to the compromise of error disclosure to patients. John Banja, Medical Errors and Medical Narcissism ix (2005).

11. Jean M. Twenge, Sara Konrath, Joshua D. Foster, W. Keith Campbell & Brad J. Bushman, *Egos Inflating Over Time: A Cross-Temporal Meta-Analysis of the Narcissistic Personality Inventory*, 76 J. Personality 875 (2008).

12. *See* Cassandra Rutledge Newsom, Robert P. Archer, Susan Trubetta & Irving I. Gottesman, *Changes in Adolescent Response Patterns on the MMPI/MMPI–A Across Four Decades*, 81 J. Personality Assessment 74 (2003).

13. The Minnesota Multiphasic Personality Inventory (MMPI) is a well-known measure of personality. *See* MMPI-2/MMPI-A Research Project, http://www1.umn.edu/mmpi (Aug. 30, 2008).

14. *See* Newsom et. al, *supra* note 12, at 80.

educators, of course, is whether self-esteem and self-importance are being developed at the expense of other essential personal qualities such as self-control and self-discipline, or important competencies such as the ability to self-assess, that is, an individuals' ability to observe, analyze and judge his or her performance on the basis of standards of professional practice, and determine how to improve it.[15]

Are increases in personality traits such as feelings of entitlement and self-importance related to other measures of moral development or professional identity formation? Evidence of a relationship between personality traits and moral behavior has been tentative at best;[16] hence, we turn to other markers of moral development where the link to behavior is more convincing.[17] Two lines of research are of interest: identity formation and moral judgment development.

1. Identity formation

Younger people are naturally more self-centered, rather than other-centered. In fact, becoming other-centered is a marker of moral maturity and a distinguishing feature of moral exemplars: individuals who have led lives of committed action.[18] Unlike professional students entering dental education[19] and dentists referred for ethics instruction by a licensing board,[20] dental exemplars[21] not only clearly articulated their professional expectations but also reflected on their perceptions of those responsibilities over their life-time of professional practice. They noted that as young profession-

15. ALVERNO COLLEGE FACULTY, STUDENT SELF ASSESSMENT AT ALVERNO COLLEGE (2000).

16. *See* Stephen J. Thoma, James R. Rest & Robert Barnett, *Moral Judgment, Behavior, and Attitudes*, *in* MORAL DEVELOPMENT: ADVANCES IN RESEARCH AND THEORY 133 (James R. Rest ed., 1986). *See also* Stephen J. Thoma, *Moral Judgment and Moral Action*, *in* MORAL DEVELOPMENT IN THE PROFESSIONS: PSYCHOLOGY AND APPLIED ETHICS 199 (James Rest & Darcia Narvaez eds., 1994) [hereinafter MORAL DEVELOPMENT IN THE PROFESSIONS] .

17. See Glen Rogers, Marcia Mentkowski & Judith Reisetter Hart, *Adult Holistic Development and Multidimensional Performance*, *in* HANDBOOK OF ADULT DEVELOPMENT AND LEARNING 497 (C. Hoare ed., 2006); *see also* Thoma et al., and Thoma, *supra* note 16.

18. See studies by Anne Colby and William Damon for a range of individuals who have led lives of committed action, and James Rule and Muriel Bebeau for examples from the dental profession. ANNE COLBY & WILLIAM DAMON, SOME DO CARE: CONTEMPORARY LIVES OF MORAL COMMITMENT (1992); JAMES T. RULE & MURIEL J. BEBEAU, DENTISTS WHO CARE: INSPIRING STORIES OF PROFESSIONAL COMMITMENT (2005).

19. Muriel J. Bebeau, *Influencing the Moral Dimensions of Dental Practice*, *in* MORAL DEVELOPMENT IN THE PROFESSIONS, *supra* note 16, at 121, 133. Bebeau observed that entering students are unable to articulate key professional expectations and even after instruction, some students display misperceptions of what is expected.

20. *See* Muriel J. Bebeau, Renewing a Sense of Professionalism Following Disciplinary Action, Paper Presented at the Annual Meeting of the American Educational Research Association (April 2006). Judgments by a state licensing board are comparable to judgments by a Professional Responsibility Board in law. One common shortcoming of professionals referred for ethics instruction following a disciplinary action was an inability to accurately describe key professional expectations, e.g., the responsibility for self governance and professional monitoring. *Id.* at 6.

21. See RULE & BEBEAU, *supra* note 18, at 157–65.

als, they didn't see their professional responsibilities then the same way they see them today. They expressed considerable insights about their own professional identity formation, and they saw their sense of obligation to society and their profession as growing and changing over time. Toward the end of their career, they saw professional and community service as what they must do, rather than what would simply be good to do if one were so inclined.

Such findings are consistent with perspectives of developmental psychologists.[22] They have long argued that people differ in how deeply moral notions penetrate self-understanding, and that understanding the self as responsible is the bridge between knowing the right thing and doing it. If, as psychologists have argued, identity formation is a life-long developmental process, we educators should not expect young people to come fully prepared to take on professional roles and responsibilities or to demonstrate the kind of integration of personal and professional values that are exhibited by exemplars. The main question here is not whether young people are self- rather than other-centered, but the degree to which societal influences may be inhibiting rather than enhancing the development of the moral self.

Are students entering professional school less psycho-socially developed than previous research would suggest? Three recent studies raise concerns. The first, by George Forsythe and colleagues, suggests that students entering college are more self-centered, rather than other-centered, than previously thought.[23] The second, by Scott Snook and colleagues, suggests that post baccalaureate programs are not, based on selection criteria, admitting the more mature and developed student for graduate education.[24] Both studies used the Robert Kegan interview, an extensive, in-depth tool to code stages of identity development, with well-trained raters using a well-validated assessment method.[25] The third study supports the findings of the second, although it used a less rigorous measure than the other two.[26]

22. Augusto Blasi, *Moral Identity: Its Role in Moral Functioning*, *in* MORALITY, MORAL BEHAVIOR, AND MORAL DEVELOPMENT 129 (W.M. Kurtines & J.L. Gewirtz eds., 1984) [hereinafter MORALITY, MORAL BEHAVIOR, AND MORAL DEVELOPMENT]. *See also* ROBERT KEGAN, THE EVOLVING SELF: PROBLEM AND PROCESS IN HUMAN DEVELOPMENT (1982).

23. *See* George B. Forsythe, Scott Snook, Philip Lewis, & Paul Bartone, *Making Sense of Officership: Developing a Professional Identity for 21st Century Army Officers*, *in* THE FUTURE OF THE ARMY PROFESSION 357 (D.M. Snider & G.L. Watkins eds., 2002).

24. Personal communication from Scott Snook to author (Jan. 2008.). *See* Scott Snook, Teaching Leadership in Business Schools, Address at How Can Leadership Be Taught? Approaches, Methods, Experiences: Teaching Leadership—A Professional Development Workshop, Annual Academy of Management (Aug. 2007).

25. *See* LISA LAHEY, EMILY SOUVAINE, ROBERT KEGAN, ROBERT GOODMAN & SALLY FELIX, A GUIDE TO THE SUBJECT-OBJECT INTERVIEW: ITS ADMINISTRATION AND INTERPRETATION (1988).

26. Verna E. Monson, Susan A. Roehrich & Muriel J. Bebeau, Developing Civic Capacity of Professionals: A Methodology for Assessing Identity, Paper Presented at the Annual Meeting of the American Educational Research Association (Mar. 2008) (on file with author).

In the first study, begun in the late 1990s, Forsythe and colleagues[27] conducted cross-sectional studies of identity development of military leaders with longitudinal follow-up on the military cadets selected for the study. Based on rigorous coding of the Kegan interviews,[28] they concluded that (1) entering cadets (college freshmen) were less developed than theorists had assumed;[29] (2) that cadets did develop, with the most significant change occurring between the sophomore and senior year (though it was unclear whether the development could be attributed to the educational experience.) Further, (3) identity formation was associated with leadership—cadets perceived as effective leaders by their peers, their superiors, and their subordinates had made the key transitions in identity formation that enabled them to attend to the interests of others,[30] and (4) advanced levels of identity formation (the integration of professional and personal values and an other-centered focus—a Stage 4 identity) characterized military leaders who were selected for career advancement and additional professional development. Of concern to Forsythe and his military educator colleagues were the thirty percent of West Point cadets who had not achieved key transformations in identity by graduation—transformations that would enable the broad internalized understanding of the codes of ethics and other professional standards required for effective leadership. These graduates remained at Stage 2 to Stage 2/3, characterized by a predominant focus on personal needs and wants. Forsythe and colleagues concluded that "[c]adet development programs will not be successful in instilling desired values in these less mature cadets unless the broad educational environment in which they operate promotes identity development toward a shared perspective on professionalism."[31]

At the time the Forsythe study was in progress, the Army had commissioned a position paper[32] to more clearly define role expectations. Four pro-

27. *See* Forsythe et al., *supra* note 23.

28. *See* LAHEY ET. AL., *supra* note 25.

29. *See* Paul Bartone, Scott Snook, George B. Forsythe et al., *Psychosocial Development and Leader Performance of Military Officer Cadets*, 18 LEADERSHIP Q. 490 (2007). Extending the Forsythe et al. study findings, *supra* note 23, Bartone and colleagues reported that eighty-four percent of entering military cadets (college freshmen) were at Stage 2 to Stage 2/3. More importantly, by graduation, sixty-three percent of cadets (college seniors) had advanced to Stage 3 or were in the Stage 3 to 4 transition. Whereas only thirty-seven percent of seniors were still at Stage 2 (six percent) or Stage 2/3 (thirty-one percent), none of the seniors who were still at Stage 2 to 2/3 at graduation were viewed by peers, superiors or subordinates as effective leaders. The most effective leaders had advanced to a Stage 3 or were in transition to a stage 4. Bartone et al., *supra* note 29, at 497.

30. *Id.* at 490.

31. Forsythe et al., *supra* note 23, at 374.

32. Concurrent with studies of identity formation, the Army Training and Leader Development Panel concluded that the Army's concepts of officership were not clearly defined, well-understood, or adequately reinforced throughout the officer's career. To address the definitional problems, the Military Academy initiated an academic project to define the concept of Officership. The resulting findings defined four essential identities for commissioned officers: Leader of

fessional roles of the military professional (leader of character, servant of the nation, warrior, and member of the profession) were defined.[33] As these role expectations were being vetted throughout the military, educators at the United States Military Academy (USMA) began to strengthen leader development by including coursework that required cadets to articulate the requirements of each role and to write reflective essays on how their experiences presented challenges to meeting role expectations for their level of development and some ways they had either managed or failed to live up to these role expectations.[34]

By comparing levels of identity formation across the career trajectory for a military leader, Forsythe and colleagues concluded that being self- rather than other-centered and focused on individual needs and wants (a stage 2 to stage 2/3) might be typical of entering college students, but would not be what military educators would envision for college graduates about to enter the military profession or, for that matter, what educators would expect for college graduates about to enter a post baccalaureate professional school. Similarly, educators would not then expect entering medical or legal professionals to exhibit the more advanced (Stage 4) phases of identity formation (typical of the fully formed professional) where the individual is more focused on the integration of personal and professional values and consistency between espoused ideals and actions. Put simply, advanced levels are rarely achieved until midlife.

Given these observations of identity development across the college years and also that the more advanced seniors were also the better military leaders,[35] it seems problematic when a substantial proportion of entering professional school students appear to be "less developed" psycho-socially than previous research would suggest. I am citing a recently completed (but yet unpublished) study by Scott Snook and colleagues[36] who interviewed a sample of twenty-six MBA students at the beginning and end of a highly-selective two-year program described in promotional materials as "deliber-

Character, Warrior, Servant of the Nation, and Member of the Profession. *See* U.S. MILITARY ACADEMY, CADET LEADER DEVELOPMENT SYSTEM 8 (2002). *See also* Richard Swain, *Reflection on an Ethic of Officership*, PARAMETERS, Spring 2007, at 4–22.

33. From 2002 to 2003, I was a visiting scholar at the W.E. Simon Center for Professional Military Ethics at the United States Military Academy at West Point. I worked with the army leadership to develop a set of publicly acknowledged and agreed upon criteria against which (1) cadets/officers can self assess and (2) subordinates, peers, and superiors or mentors can distinguish the capacities required for each of the four roles at ever advancing levels of professional development. If coupled with an effective self assessment and feedback process, such criteria ought to enable individuals to become proactive partners in their own developmental journey.

34. For specific examples, see M. J. BEBEAU & P. LEWIS, MANUAL FOR ASSESSING AND PROMOTING IDENTITY FORMATION (2003).

35. Bartone et al., *supra* note 29.

36. Personal communication with Scott Snook (Jan. 2008); Scott Snook, Teaching Leadership in Business Schools, Address at Annual Academy of Management Meeting (Aug. 4, 2007).

ately intended to be a life-changing experience, one that will shape your professional identity and influence your thinking for the rest of your life."

Snook and colleagues reported extraordinary variability among the twenty-six study participants. Ten of the twenty-six exhibited the stage 2 to 2/3 identity typical of entering college students;[37] seven exhibited the Stage 3 to Stage 3 /4 identity of college seniors (that is, cadets considered to be effective leaders for their level of professional achievement as entry level military leaders). Nine of the twenty-six MBA students exhibited the Stage 4 to 4/5 identity characteristics of the senior military officers this team also studied. Of the twenty-five MBA students who were interviewed eighteen to twenty months later, seven experienced minimal developmental change, and the change was not most pronounced in the those who were least developed.

In the third study, Susan Roehrich, Verna Monson, and I[38] have been coding essays written by entering dental students in response to probe questions aimed at eliciting a student's sense of professional identity. We have not demonstrated that inferences made from written responses to open-ended questions are comparable to inferences made from an interactive interview method. Yet, we have been able to classify student statements that seem to reflect different stages of identity formation. We have also been able to validate our judgments against other developmental measures, like the Defining Issues Test (DIT)[39]. What we have noticed, is that the majority of dental students who responded to our essay questions seems less developed than the lofty ideals expressed in their admissions essays would suggest. Most attended to image or personal rewards of the professional life. What distinguished students who appeared to have a more developed sense of the moral self[40] (about thirty-seven of ninety-seven entering students), was a greater tendency to incorporate such other-directed concerns issues of access to care, serving medical assistance patients, and volunteering to help those in need—as key aspects of the self.

Whereas we have used the essays to help us understand how entry level students conceptualize their role, these same essays are then used by the student as a first step in a reflective process designed to promote professional identity development. As part of the beginning dental curriculum, we discuss with students characteristics that distinguish among occupations and together we discuss the expectations that society and the profession[41] have

37. Bartone et al., *supra* note 29.

38. Bebeau et al., *supra* note 26.

39. The DIT is a measure of life-span moral judgment development. *See* Appendix A, *infra* p. ##.

40. Baxter-Magolda and King refer to this as "self-authoring". *See generally* M. BAXTER-MAGOLDA & P. M. KING LEARNING PARTNERSHIPS: THEORY AND MODELS OF PRACTICE TO EDUCATE FOR SELF-AUTHORSHIP (2004).

41. Our approach is based on Richard H. Hall's. RICHARD H. HALL, OCCUPATIONS AND THE SOCIAL STRUCTURE 63–135 (2nd ed., Prentice-Hall 1975) (1969).

for individuals who wish to become dentists or doctors or lawyers. Interestingly, we often get complaints from up to a third of our students about our requirement that they be able to express these societal and professional expectations in an essay they write for a mid-term exam. We have used a number of strategies to address the complaints. After presenting the lectures and discussion and buttressing them with inspiring stories of exemplary dentists,[42] we have arranged personal classroom visits with dentists who have gotten into difficulty with the board of dentistry because of shortcomings in living up to societal and professional expectations. Still, we have had students complain on anonymous course evaluations (some years up to 30 percent of the class) that the ethics professor is "imposing her values on us" and asking us to "regurgitate" on a final exam "views that are hers, not ours, and we should be able to develop our own values."

How might we as educators explain these feelings expressed by a minority of our students? Given the three studies just discussed, we now think that entering students may be expressing an earlier stage of identity development where they concentrate on a self- rather than other-orientation. If so, these entering students may experience the other-directed values that have been set by the profession itself and communicated by the instructor as an imposition on their personal values, including their need for a career that could help them pay their school loans and begin adulthood with a secure future. Melissa Anderson[43], in her study of graduate students understanding of research norms in a naturalistic setting, confirmed our observation[44] that entry-level students aren't particularly aware of the norms and values of the profession, and don't seem to learn them during the usual socialization process. She argued for more deliberate approaches during doctoral education to assisting students to integrate their personal values and the normative values of the profession.[45]

Studies that illustrate immature personal attributes or an undeveloped moral identity in the applicant pool for professional education quite naturally raise questions about the possibility of selecting for moral maturity and/or for desirable personal attributes. Past efforts to select for desirable traits using admissions interviews or other screening devices have had limited success. However, for educators concerned with both selection and de-

42. RULE & BEBEAU, *supra* note 18.

43. Melissa Anderson, *What Would get you in Trouble: Doctoral Students Conceptions of Science and its Norms*, *in* INVESTIGATING RESEARCH INTEGRITY: PROCEEDINGS OF THE FIRST ORI RESEARCH CONFERENCE ON RESEARCH INTEGRITY (Office of Research Integrity, 2002).

44. Entering students could not express key concepts of professionalism when asked to do so, and even after instruction some were unable to accurately express key responsibilities—like the responsibility for self-monitoring or regulation of the profession, or the responsibility to serve society, not just those who could afford their services. *See* M. J. Bebeau, *Influencing the Moral Dimensions of Dental Practice*, *in* MORAL DEVELOPMENT in the Professions, *supra* note 16, at 121–46.

45. Anderson, *supra* note 43.

velopment of an other-centered professional identity, recent work by Kevin Eva and colleagues[46] is gaining professional educators' attention. Eva and colleagues developed and validated a Multiple-Mini Interview (a kind of "medical school admissions OSCE") that is providing better predictions to clerkship performance of physicians than the standard admissions interview—which has, for all the effort and cost involved, not been able to reliably discriminate those who are likely have problems as students or practitioners. This Multiple Mini Interview (MMI)[47] has recently been adapted for dentistry and is being tested in a predictive validity study by Marilyn Lantz[48] at the University of Michigan. An MMI consists of six to twelve short encounters designed to reveal the capabilities that faculty value most in their students: critical thinking, ethical decision-making, knowledge of the health care system, and effective communication skills.

2. *Moral judgment development*

As noted, we noticed some increases in entering dental students' negative reactions to instruction on professional expectations. We also noticed what appeared to be decreases in mean scores of entering students on the Defining Issues Test (DIT)—a measure of moral judgment development. We also observed that these entering classes had higher GPAs[49] than earlier cohorts—a real surprise for us, given the lower DIT scores. Steve Thoma and I[50] then decided to ask whether the generational shifts observed by researchers investigating individual priorities on personality measures would

46. Kevin W. Eva, Jack Rosenfeld, Harold I. Reiter & Geoffrey R. Norman, *An Admissions OSCE*: *The Multiple Mini-Interview*, 38 MED. EDUC. 314, 314–26 (2004) [hereinafter *Admissions OSCE*]; *see also* Kevin W. Eva, Harold I. Reiter, Jack Rosenfeld & Geoffrey R. Norman, *The Ability of the Multiple Mini-Interview to Predict Clerkship Performance in Medical School*, 79 ACAD. MED. (10 Supp.), S40–2 (2004).

47. *Admissions OSCE*, *supra* note 46, at 314–15.

48. Personal communication with Marilyn Lantz (Aug. 2007). In Feburary 2008, Marilyn Lantz introduced the dental MMI to other dental school admissions directors at a conference held specifically for that purpose at the University of Michigan.

49. Dramatic increases in applicant pools to dental education have taken place. For example, according to the American Dental Education Association (ADEA), applicants for dental education rose forty-seven percent nationwide from 1990 to 2005. Currently, at the Univ. of Minn. there are ten applicants for each position. This marked increase is likely the result of market forces that have increased the work load and decreased income in medicine. Salaries of dentists have now come close to those of physicians. The average net income of dentists has increased 117 percent since 1990. American Dental Education Association, *Trends in Dental Education*, http://www.adea.org/TDE (last visited Aug. 30, 2008). In 2006, the median salary for dentists was $136,960. Bureau of Labor Statistics, U.S. Department of Labor, *Dentists*, *in Occupational Outlook Handbook*, *2008–09 Edition*, *available at* http://www.bls.gov/oco/ocos072.htm (last visited Aug. 30, 2008). For family practice physicians, the median salary in 2005 was $153,010, compared to $136,002 in 1997, an increase of only thirteen percent. *Id.*; Sue Cejka, *Physician Compensation in 1997*: *"Rightsized" and Stagnant*, HOSP. Physician 55–62 (1999); *see also* Bureau of Labor Statistics, U.S. Department of Labor, *Physicians and Surgeons*, *in Occupational Outlook Handbook*, *2008–09 ed.*, *available at* http://www.bls.gov/oco/ocos074.htm (last visited Aug. 30, 2008).

50. Stephen J. Thoma & Muriel J. Bebeau, *Moral Judgment Competency is Declining Over Time: Evidence From Twenty Years of Defining Issues Test Data* (2008) (forthcoming) (manu-

also be reflected on the DIT. Because we have access to large data sets maintained by the Center for the Study of Ethical Development, we were able to investigate mean scores in composite norming samples collected over the past thirty years.

Figure 1 shows declines in composite norming samples over the past thirty years. The contrasts depicted are between college students and graduate students, and illustrate the mean differences attributed to education. Because norming samples are drawn from many regions of the country and from a range of educational institutions, and we do know that some contextual variables such as education are related to level of moral judgment,[51] we reasoned that observed differences in DIT scores could be attributed to an unintended selection bias. Thus, we also checked for declines in two long-term cross-sectional samples collected within clearly defined settings. Figure 2 depicts declines in mean DIT scores over time for college students at a Southern university, and declines over time for entering professional school students at a Midwestern university. Figures 1 and 2 show declines in one of three DIT indices—the index that reflects the proportion of times one selects moral arguments that appeal to moral ideals. Figure 3 illustrates how declines in postconventional reasoning[52] (N2 scores or P scores) relate to the other two indices. Notice that for both dental (Figure 3) and college students (Figure 4), increases in personal interest reasoning are evident over time.

Declines in cross-sectional samples support our observation that DIT scores have declined over the last twenty to thirty years. Consistent with other findings indicating an increased emphasis on the self, we observe a narrowing of social reasoning as measured by the DIT. It appears that moral judgment development is currently less mature and driven by more personal considerations than it has been in previous cohorts.

Given the links between moral judgment development and behavior,[53] political reasoning and choices,[54] and decisions about real-life moral situa-

script on file with the author) (paper presented at the annual meeting of the American Educational Research Association in New York, NY from Mar. 24–28).

51. Using Hierarchical Linear modeling (HLM) to analyze DIT-2 data from 7,642 individuals from sixty-five institutions, Yukiko Maeda and colleagues empirically demonstrated that information about the educational context informs variation in the individual's level of moral judgment. *See* Y. Maeda, S. J. Thoma & M. J. Bebeau, *Understanding the Relationship Between Moral Judgment Development and Individual Characteristics: The Role of Educational Contexts* (2007) (forthcoming) (manuscript on file with author) (paper presented at the 2007 Annual Meeting of the American Educational Research Association in Chicago, IL).

52. *See* Appendix A, *infra* p. ## for definitions and descriptions of each index.

53. *See* Blasi, *supra* note 22; *see generally* M. J. Bebeau, & V.E. Monson, *Guided by Theory, Grounded in Evidence: A Way Forward for Professional Ethics Education*, *in* HANDBOOK ON MORAL AND CHARACTER EDUCATION (Lucia Nucci & Darcia Narvaez eds., 2008).

54. *See* H. Michael Crowson, Teresa K. DeBacker & Stephen J. Thoma, *Are DIT Scores Empirically Distinct From Measures of Political Identification and Intellectual Ability? A Test Using Post-9/11 Data*, 25 BRIT. J. Dev. Psychol. 197 (2007).

tions,[55] these findings suggest students may not be as well prepared as they once were to reason about social issues or to make moral judgments more appropriate for professional practice. Particularly troubling is the increase in personal interest reasoning within the last ten years. In recent work, we observe that preference for a personal interest schema is a liability when making context-specific moral decisions.[56]

Figure 5 shows some recent analyses between DIT scores and a measure of profession-specific reasoning and judgment. First, some background: In the late 1990s Thoma and I devised a measure of what we call intermediate level ethical concepts (ICM)[57]—concepts like confidentiality, patient autonomy, professional self-monitoring, due process—and other concepts that lie in an intermediate zone between the big principles like justice, autonomy, and beneficence, and prescriptions like those in codes of ethics. Some researchers had argued that the DIT may not be a good measure of the effects of ethics instruction, because it measured life-span development rather than context-specific concepts that needed to be applied in professional settings. Indeed, some of the failure to show an increase in moral judgment development during professional school may simply be a failure to measure the more fine-grained understanding of general ideals as they apply in context (e.g., patient or professional autonomy and confidentiality).

Figure 5 shows the mean ICM scores for nine cohorts of dental students (n = 722) students who are classified by moral type. Students who display a Type 7 (which reflects a preference for moral arguments grounded in ideals—a profile considered desirable for professionals) have significantly[58] higher scores on the measure of professional-specific reasoning and judgment (the ICM) than students who display any of the other types. Fig-

55. *See* Stephen J. Thoma, N. Hestevold & M. Crowson, *Describing and Testing a Contextualized Measure of Adolescent Moral Thinking* (2005) (paper presented at the American Educational Research Association in Montreal, Canada).

56. Stephen J. Thoma, Muriel J. Bebeau & A. Bolland, *The Role of Moral Judgment in Context-Specific Professional Decision Making, in* GETTING INVOLVED: GLOBAL CITIZENSHIP DEVELOPMENT AND SOURCES OF MORAL VALUES (Fritz Oser & Wiel Veugeler eds., Sense Publications) (forthcoming) [hereinafter *Professional Decision Making*].

57. Muriel J. Bebeau & Stephen J. Thoma, *"Intermediate" Concepts and the Connection to Moral Education*, 11 EDUC. Psychol. Rev. 343, 343–60 (1999). Bebeau and Thoma devised the Dental Ethical Reasoning and Judgment Test (DERJT) as a prototype measure of intermediate concepts. Such concepts are thought to reside between the more prescriptive directives of codes of professional conduct and the more abstract principles (e.g., autonomy, beneficence, and justice) described by ethicists (*see* T. L. Beauchamp & Childress, Principles of biomedical ethics (4th ed., Oxford Univ. Press 1994). The DERJT is sensitive to dental ethics education interventions, is a useful measure for diagnosing deficiencies in reasoning and judgment as displayed by dentist disciplined by a licensing board , and is moderately correlated with DIT scores. *See Professional Decision Making*, *supra* note 57; Bebeau, *supra* note 20. For a full description of the measure and efforts in other professions to develop similar measures, *see* Appendix A, p. ##.

58. The contrasts between Type 7 and all other contrasts are statistically significant. Further, the mean scores of Type 4 are significantly higher than the means for Types 5 and 6, which are profiles that are considered transitional.

ure 6 shows the seven hypothetical DIT profiles, and Figure 7 shows the proportion of students who exhibited each profile at entry to dental school and at graduation four years later. The observed changes can be attributed to the ethics curriculum.[59] What would happen to student scores, we asked, when students do not experience the full measure of the ethics curriculum in dentistry? Figure 8 illustrates that when students do not experience the curriculum, their DIT scores revert to those of entering students, and for some students even regressed. Elsewhere, I have argued[60] that failure to help students work through the challenging professional problems that arise as they progress through the curriculum is responsible for the cynicism that so often develops as students become aware of the complexity of professional practice, but a reaction that might better be described as a retreat to earlier ways of making meaning or to moral disengagement. These students do not show the gains in moral arguments shown by their peers who experienced the full ethics curriculum. Further, these students scores on the profession specific measure of ethical reasoning and judgment showed declines as did students perceptions of the value of the curriculum and their self-assessments of learning.

III. Domains in which Educators Must work to Foster Ethical Development and Professionalism

In this section, I argue that two domains need to be addressed for educators to be effective in fostering ethical development and professionalism. On the one hand, we as educators need to address capacities that give rise to decision making—what James Rest[61] described as the components of morality. On the other hand, we need to address the educational milieu, with its complex issues and value frameworks, in which we educate.

A. Capacities that Give Rise to Ethical Decision-making

Rest argued that no matter how well-intentioned, each of us is capable of 1) missing a moral problem, 2) developing elaborate and internally persuasive arguments to justify our actions, 3) giving priority to personal rather than moral concerns, and 4) a flagging will or ineffectivity in implementing

59. In 1994, Bebeau and Thoma devised a method for attributing change to curriculum without use of a control group. Based on meta-analysis of intervention studies conducted by Schlaefli, Rest, and Thoma (1985), Bebeau and Thoma compared the effect size for successful intervention studies with effect sizes of control group studies. Bebeau, M.J. & Thoma, S.J. (1994) [hereinafter Bebeau & Thoma, 1994 Method]. The impact of a dental ethics curriculum on moral reasoning. *Journal of Dental Education,* 58(9): 684–92. A. Schlaefli, J.R. Rest & S.J. Thoma, *Does moral education improve moral judgment? A meta-analysis of intervention studies using the Defining Issues Test*, 55(3) Review of Educ. Research 319 (1985).

60. *See* Bebeau & Thoma, 1994 Method, *supra* note 59.

61. *See* J.R. Rest, *Morality*, *in* Handbook of Child Psychology, *supra* note 4, at 556; *see also* J.R. Rest, M.J. Bebeau & J. Volker, *An Overview of the Psychology of Morality*, *in* Moral Development: Advances in Research and Theory, *supra* note 16, at 1.

an action that our colleagues would judge as professional or ethically responsible. Rest thought that if we were going to make progress in understanding moral behavior (i.e., professionalism) and in influencing moral development, we had to attend to all four of these capacities.[62] We should do so deliberately by designing educational materials that address each component by itself, before we ask our students to integrate the components or to "put it all together"—a requirement in real life professional problem solving settings that have a moral dimension.

How are these components defined? See Table 1 for operational definitions of each of the capacities in Rest's Four Component Model. How are the components or capacities conceptualized? Some cautions apply. First, we do not see the four processes as a linear decision making model.[63] Rather, the four processes are interactive, and an individual may enter the process through any one of the four. There may be cognitive, affective or behavioral dimensions to each of the capacities. Yet, as educational researchers, we are not studying cognitions, affective responses, and behaviors as separate elements. Rather, we have learned that these four capacities are embedded in holistic, functional processes. For example, one might enter these interactive processes with an observation, inference, or intuition that elicits an action. The action, in turn, may give rise to a reflection[64], a subsequent observation, inference, reflection or action, and so on. As an educational researcher in professions education, I draw my energy by designing and validating measures of each of the capacities. I have simultaneously been committed to designing, refining, and implementing a curriculum for developing ethical identity throughout the experiences students engage in professional school. My energy for creating curriculum comes from seeing students learning and developing these capacities as a result of this curriculum. If we as educators wish to continually engage students in learning, we construct educational materials to elicit these capacities.

62. Neil Hamilton has adapted Rest's operational definitions for legal education. *See* Neil Hamilton & Lisa Brabbit, *Fostering Professionalism Through Mentoring*, 57 J. OF LEGAL EDUC. 102, (2007) (described in Table 1).

63. *See* M. J. Bebeau, J.R. Rest & D.F. Narvaez, *Beyond the Promise: A Perspective for Research in Moral Education*, 28(4) EDUC. RESEARCHER 18 (1999).

64. Jonathan Haidt argues that action is often intuitive or reflexive. We don't reason to learn the truth, but rather to persuade others. We may act without thinking, and then engage in a number of "post hoc" justifications of our actions. *See* J. Haidt, *The Emotional Dog and its Rational Tail: A Social Intuitionist Approach to Moral Judgment*, 108 PSYCHOLOGICAL REVIEW 814 (2001). Albert Bandura describes the range of processes we use to disengage or to support or protect the self from criticism. These processes include: (1) moral justification, (2) euphemistic labeling, (3) advantageous comparison, (4) diffusion of responsibility, (5) displacement of responsibility, (6) dehumanization, (7) disregarding of consequences and (8) attribution of blame. A. Bandura, *Social Cognitive Theory of Moral Thought and Action*, *in* HANDBOOK OF MORAL BEHAVIOR AND DEVELOPMENT, VOL 1 45 (W.M. Kurtines & J.L. Gerwitz eds., 1991).

Second, we see each of the four capacities as developmental. In our work, we take a constructivist view consistent with Kohlberg's view of moral judgment as being developmental;[65] that is, that there are progressive, qualitative shifts in how individuals construct and make meaning of the problems they confront as they deal with gradually more complex and novel situations I also agree with theorists like Gus Blasi[66] and Robert Keagan[67] who argue that we as individuals construct an identity over the lifetime. We develop multiple identities—for example, parent, teacher, child, musician, dentist, lawyer, lifelong learner, or athlete. We focus most of our energy on developing those identities that are central to us because we want to be judged by others as a superb musician, compassionate parent, or highly competent lawyer. Many of us as individuals care a good deal about whether "ethical and moral" are part of that description. The formation of a professional identity that develops across the life can be learned so that it continues to become more sophisticated and complex. I also see the other components (moral sensitivity, character, and moral implementation as developmental. Each of us as professionals can develop our diagnostic abilities, our reasoning and judgment, and our will and commitment to implement our intentions effectively over a lifetime.[68]

B. The Educational Milieu that Supports or Inhibits Development

Learning any capability or ethical decision-making process depends not only on an individual's effort to be open to change, but also on the integrity of the moral milieu in which students learn and work. I recently worked with colleagues on the Institute of Medicine project "Integrity in Research: Creating an Environment that promotes responsible conduct."[69] We realized that addressing the capacities of the individual to function responsibly is one challenge. Another is to create systems that assist the individual to act at the leading edge of their ethical abilities. The moral climate may consist

65. *See* L. Kohlberg, *Stages and Sequences: The Cognitive Development Approach to Socialization*, *in* HANDBOOK OF SOCIALIZATION THEORY OF RESEARCH 347 (D.A. Goslin ed., 1969).

66. A. Blasi, *Moral Identity: Its Role in Moral Functioning*, *in* MORALITY, MORAL BEHAVIOR, AND MORAL DEVELOPMENT, *supra* note 22, at 129.

67. KEGAN, *supra* note 22.

68. With respect to moral virtues, which Rest saw as a dimension of Component 4, I am impressed with Pellegrino and Thomasma's efforts to define and unpack each of the virtues of medical practice. *See* E.D. PELLEGRINO & D.C. THOMASMA, THE VIRTUES IN MEDICAL PRACTICE (1993). By defining the virtues, they provide criteria for judging the actions and the interactions of professionals (whether with patients or with one another) as one might do in role plays or other settings where performance is elicited. Similarly, I see Yale Law Professor Stephen L. Carter's works on civility and his earlier book, INTEGRITY, as examples of efforts to define key virtues of professional practice. S.L CARTER, CIVILITY (1998); S.L. CARTER, INTEGRITY (1997). Admittedly, Carter's intent is to explore elements of good character that apply to anyone, yet civility and integrity are key virtues for legal professionals, and these works help to define criteria for judging student or professional interactions.

69. BD. ON HEALTH SCI. POLICY, INST. OF MED., INTEGRITY IN SCIENTIFIC RESEARCH: CREATING AN ENVIRONMENT THAT PROMOTES RESPONSIBLE CONDUCT (2002).

of implicit or explicit value frameworks such as "everyone is doing it" that may dampen the possibility that an individual will act in ways consistent with the laws and rules governing professional practice.[70] In contrast, an explicit value that "the client usually comes first" may encourage the possibility. The milieu either encourages or sanctions behaviors that are judged as ethical or unethical by professional colleagues.

Student behavior during medical school may predict subsequent disciplinary action by a licensing board. Maxine Papadakis and colleagues[71] found that poor reliability and responsibility, lack of self-improvement and adaptability, and poor initiative and motivation during medical school predicted subsequent negligence, inappropriate prescribing, unlicensed activity, sexual misconduct, fraud, criminal activity, and other activities for which professionals are sanctioned. As educators have often suggested, board exams and other measures of academic achievement do not serve as gate keepers for "bad professional behavior."[72]

In medical education, some educators are moving to "Measure Medial Professionalism"—to keep track of "bad acts." However, Fred Hafferty, a medical education colleague who has written eloquently on the power of the "hidden curriculum" to undo what we attempt to do in the formal curriculum,[73] expresses concerns over the recent movement. He cautions:

[M]edicine must avoid the self-serving inconsistency of claiming to establish professionalism as an internalized and deep competency while willing to settle for graduates who manifest it only as a surface phenomenon. . . . Professionalism as a deep competency might generate the same behavior, but the behavior in question is more real/authentic because the

70. Appendix B of the IOM report (outcome measures for assessing integrity in the research environment, in the N.R.C. Committee on Assessing Integrity in Research Environments, pages 145–47) summarizes research across the continuum of education on the connection between individual development and its relationship to collective norms. Researchers conclude that "practical moral action is not simply a product of an individual's moral competence but is a product of the interaction between his or her competence and the moral features of the situation." Appendix B, *supra* note 70, at 145.

71. M.A. Papadikis, C.S. Hodgson., A. Teherani & N.D. Kohatsu, *Unprofessional Behavior in Medical School Is Associated with Subsequent Disciplinary Action by a State Medical Board*, 79 ACADEMIC MED. 244 (2004); *see also* A. Teherani, C.S. Hodgson, M. Banach, & M.A. Papadikis, *Domains of Unprofessional Behavior during Medical School Associated with Future Disciplinary Action by a State Medical Board*, 80 ACADEMIC MED. S17 (2004).

72. Whereas researchers (Papadakis, Hodgson, Teherani & Kohatsu, 2004) found a statistically significant difference in performance on measures of academic achievement favoring those who were not sanctioned, the difference lacked practical significance. Thus, it appears that an unwillingness or inability to perform, rather than a lack of profession-specific knowledge, accounts for professional failures. Similarly, Stern, Frohna & Gruppen found that simple indicators of noncompliance and inaccurate self-assessment during medical school, rather than achievement indicators drawn from admissions records, predicted clerkship performance. *See* D.T. Stern, A.Z. Frohna, & L.D. Gruppen, *The Prediction of Professional Behavior*, 39 MED. EDUC. 75 (2005).

73. F.W. Hafferty & R. Franks, *The Hidden Curriculum, Ethics Teaching, and the Structure of Medical Education*, 69 ACADEMIC MED. 861 (1994).

behavior is consequentially linked to the social actor's underlying identity . . . rather than to how the job was carried out . . . .[74]

My recommendations for structuring a professional ethics education attend both to surface professionalism and to underlying capacities that are deep and durable. I base these guidelines on experience and evidence drawn from classroom measures and learning outcome measures my colleagues and I have devised to assess student performance and provide student feedback.

In the next section, I summarize what we know about the development of each of Rest's four capacities. I rely on several data sources: (1) studies of ethical development in the professions (some of which have already been cited), (2) evidence from twenty-three cohorts of dental students who participated in a four year ethics curriculum (Classes of 1985 to 2007) and completed classroom assessments and outcome measures at the beginning and end of the program, (3) data from forty-one practitioners disciplined by a licensing board, and (4) life-stories of ten extraordinary dental professionals.

The outcome measures used to assess each of the four capacities are described in detail in Appendix B of the Institute of Medicine report and in two recent book chapters. A brief description of each is included in Appendix A of this paper.

IV. Insights from Efforts to Promote Ethical Development

Studies of moral development theory find ample evidence that individual capacities to recognize, reason about, commit to, and implement actions judged by others to be moral continue to develop across the life span. Further, these capacities are distinct from one another[75] and moral failing can

74. F.W. Hafferty, *Measuring Professionalism: A Commentary*, *in* Measuring Medical Professionalism, *supra* note 2, at 281, 283.

75. Di You tested the independence of the four capacities Rest defined as distinct from one another, but necessary conditions for moral action. She randomly selected sixty male and sixty female students from five cohorts of dental students (n= 386) who completed, as part of an ethics curriculum, measures of (1) ethical sensitivity (the Dental Ethical Sensitivity Test [DEST] during the third year); (2) moral judgment (Defining Issues Test [DIT] during first and fourth year); (3) identity formation (Professional Role Orientation Inventory [PROI] during first and fourth year) and (4) ethical implementation (performance on eight cases [Professional Problem-Solving scores] during third and fourth year). Consistent with Rest's hypothesis, correlations among the measures are low (ranging from .004 to .26), supporting the independence of the information. Di You, Interrelationships and Gender Differences among Components of Morality for Dental Students (2007) (unpublished Ph.D. dissertation, Univ. of Minn., Twin Cities) (on file with author).

result from a deficiency in any one of them.[76] Each of the capacities can be reliably assessed and each can be enhanced through education.[77]

Do individuals continue to develop these abilities beyond formal schooling? In addition to literally hundreds of studies demonstrating the role of education and life experience in promoting moral judgment development,[78] Mentkowski and Associates provide evidence from a ten-year longitudinal study of moral reasoning and a wide variety of other capacities such as critical thinking and self-reflection. They studied students at entrance to college and continued up to five years after college, finding that moral reasoning developed as a result of an ability-based undergraduate curriculum that taught and assessed for these and other capabilities.[79] Capacity for moral reasoning was clearly maintained for at least five years after college.[80] These researchers also found that the person is a moral being, in addition to being capable of moral reasoning.[81] A construct, "Inte-

76. Bebeau analyzed the relationship between ability deficiencies and disciplinary actions for forty-one individuals referred for ethics instruction by a licensing board. Based on pretest performance on five well-validated measures of the four components, thirty-eight demonstrated a deficiency in one or more of the components, and subsequently completed an individualized course designed to remediate the shortcoming. Not only did post-test performance demonstrate statistically significant improvements in the capacity being measured, but analysis of the relationship between ability deficiencies and actions for which the professional was sanctioned illustrated the explanatory power of Rest's Four Component Model of Morality for understanding how shortcomings in one or more of the capacities contributes to behavior. For example, in cases where disciplinary action was taken for insurance or Medicaid fraud, analysis of role concept and moral reasoning helped reinterpret what appeared to be acts to promote self-interest as an unbounded sense of responsibility toward others. The performance-based assessments (especially the DEST) were useful in identifying shortcomings in either ethical sensitivity and/or ethical implementation that accounted for the moral failing. Rather than trying to line his own pocket—the usual attribution of such acts—the individual paternalistically manipulated the system to help the patient achieve needed care. In eight cases where disciplinary action was taken for providing specialty care below the standard of the specialist, each of the dentists so disciplined had acceptable scores on the measure of ethical sensitivity, but low scores on the measure of moral judgment. This finding is consistent with Baldwin and Self's observation showing a relationship between low DIT scores and the frequency of malpractice judgments. *See* D.C. Baldwin Jr., & D.J. Self, *The Assessment of Moral Reasoning and Professionalism in Medical Education and Practice*, *in* MEASURING MEDICAL PROFESSIONALISM, *supra* note 2, at 75. Further examples are detailed in M.J. Bebeau, Renewing a sense of professionalism following disciplinary action, Paper presented at the Annual Meeting of the American Educational Research Association (Apr. 2006).

77. One criterion for validation of each of the capacities defined by Rest's Four Component Model (in addition to criteria for construct validity and measurement reliability) is that the instrument is sensitive to change resulting from an intervention. In other words, the capacity is not a static trait, but is something that can be developed. For a summary of the validity of each of the measures, including evidence that each of the capacities can be developed, see M.J. Bebeau, *Evidence-Based Character Development*, *in* LOST VIRTUE: PROFESSIONAL CHARACTER DEVELOPMENT IN MEDICALEDUCATION, VOLUME 10 (ADVANCES IN BIOETHICS) 47 (N. Kenny & W. Shelton eds., 2006).

78. J. REST, D. NARVAEZ, M.J. BEBEAU & S. THOMA, POSTCONVENTIONAL MORAL THINKING: A NEO-KOHLBERGIAN APPROACH 124–31 (1999).

79. MENTKOWSKI & ASSOCIATES, LEARNING THAT LASTS: INTEGRATING LEARNING, DEVELOPMENT AND PERFORMANCE IN COLLEGE AND BEYOND 121 (2000).

80. *Id.* at 120.

81. *Id.* at 114.

gration of Self in Context," emerged from extensive statistical analyses in this ten-year study of the same individuals. These analyses were grounded in multiple, longitudinal measures of human development that rely on essays and other idea-generating measures of human growth. The integration of the deeper structures of the self make up an individual's fundamental and integral identity as a person, including the moral self. The moral self is an individual's way of morally constructing and being in the world and is a distinct moral realm reflecting Rest's third component, moral motivation and will.

Most important, according to the research conducted by Mentkowski and Associates, the integration of the self in multiple contexts measurably increased after college. This leap in development was clearly related to the degree to which students' college preparation was broad and deep—in civic, personal, social and intellectual learning.[82] Further, graduates up to five years after college revealed not only their character, but also the effects of their education.[83] Alverno College has an integrated liberal arts and professions undergraduate curriculum defined by eight abilities that are integrated in disciplinary coursework across the curriculum. The curriculum is ability-based and employs performance assessment of the eight abilities throughout the student's college experience.[84] The eight abilities are: communication, analysis, problem solving, valuing in decision-making, social interaction, developing a global perspective, effective citizenship, and aesthetic engagement.[85] Longitudinal research on samples of Alverno students and graduates identified four domains of human growth in college that are fostered by the Alverno curriculum.[86] These domains are: abstract, sound, and insightful Reasoning; effective and metacognitive Performance; perceptive, insightful, and adaptive Self-Reflection that forms individual identity as a learner and a professional; and integrative, ethical Development. Student engagement in three transformative learning cycles in the curriculum and co-curriculum assisted students to grow in these four domains.[87] Students learned these learning cycles during college and continued to use them after graduation for up to five years after college.

These cycles integrated these four domains of human growth. The first transformative learning cycle is student capacity for reasoning, for using metacognitive strategies to connect Reasoning and Performance. The second cycle is student capacity for self-assessing role performance to connect Performance with Self-Reflection. The third cycle is that the student is engaging with depth and breadth, diverse approaches, views, and activities to

82. *Id.* at 138–39.
83. *Id.* at 142.
84. *Id.* at 415–23
85. *See* MENTKOWSKI & ASSOCIATES, *supra* note 79.
86. ALVERNO COLLEGE FACULTY, *supra* note 15, at iii.
87. MENTKOWSKI & ASSOCIATES, *supra* note 79, at 183–89

connect Self-Reflection and Development. These domains and cycles are fostered in the Alverno curriculum, and five-year follow-up studies with graduates show that breadth of learning in the Alverno curriculum promotes students' and graduates' continued growth in these domains. Further, six essential elements of the Alverno curriculum that emerged from multiple sources of evidence are: learning experiences organized as frameworks for learning; consensus on content and assessment; integrated interactive contexts and cultures; articulated conceptual frameworks of educational assumptions, with learning and assessment principles that shape student and faculty learning as well as the learning culture of the college; clarified mission, aims, and philosophy; and ongoing curriculum scholarship.[88] Elements of this curriculum have been adapted for legal and judicial education.[89]

These findings suggest that professional school can be one element in the further personal growth of the professional. Further, professional schools need to build on the development of the moral self begun in undergraduate school. Professional school curricula that rely on student learning of technical skills alone, no matter how complex and consequential, will likely fail to ensure that students form an identity that also reflects the kinds of personal and professional values and perspectives that sustain an individual's will to act morally. These findings show changes in the structures of thinking that tend to be maintained—though some "recycling back to earlier ways of thinking" is sometimes observed when individuals encounter new problems.[90]

Mentkowski et al. learned that after college, interpersonal and intellectual qualities were integrated in the countless situations that defined one's professional role as they studied the performance of these same graduates in work, family, and civic settings five years after college.[91] To illustrate, four ability factors emerged statistically that characterized performance in the workplace: (1) Graduates were able to participate as a leader and to conceptualize situations and take appropriate actions. But effective graduates showed this ability factor in the context of an entire organizational setting and considered how they might take responsibility for interdependent

88. *Id.* at 312.

89. *See generally* MARCIA MENTKOWSKI, GEORGINE LOACKER & KATHLEEN O'BRIEN, ABILITY-BASED LEARNING AND JUDICIAL EDUCATION: AN APPROACH TO ONGOING PROFESSIONAL DEVELOPMENT (1998); STATE BAR OF WISCONSIN, COMMISSION ON LEGAL EDUCATION: FINAL REPORT AND RECOMMENDATIONS (1996).

90. *See, e.g.*, REST ET AL., *supra* note 78, for discussions of moral schema theory and developmental phases of consolidation and transition that account for shifts in decisions as individuals grow and change. *See* Marcia Mentkowski, *Paths To Integrity: Educating for Personal Growth and Professional Performance*, *in* EXECUTIVE INTEGRITY: THE SEARCH FOR HIGH HUMAN VALUES IN ORGANIZATIONAL LIFE 89 (S. Srivastva et al. eds., 1984); s*ee also* MENTKOWSKI, *supra* note 79, for a discussion of how domains of human growth are integrated toward learning outcomes that are lasting.

91. *See* MENTKOWSKI & ASSOCIATES, *supra* note 79.

goals.[92] (2) Further, effective graduates showed balanced self assessment and acting from values. They were more likely to be sensitive to their own strengths and weaknesses and their personal values. They used self-reflection to construct integrity in their actions, as well as to improve their performance.[93] (3) Effective graduates were explicitly engaged in advancing the concerns of others. They were sensitive to differences in individuals and concerned about their needs. They trusted others, believed in their potential, and were aware that their own perspectives may be very different from those of others.[94] (4) These graduates also engaged in analytic thinking and action. Thus, they used specialized knowledge learned in a particular profession or setting. They fully engaged their intellectual abilities, such as recognizing patterns that helped them solve problems that required systematic planning. In sum, interpersonal qualities represented by the moral self were fully integrated and essential to effective performance in settings that demanded results.[95]

With respect to graduate level dental education, my colleagues and I have observed that significant change in each of Rest's four capacities can be achieved with a curriculum of rather modest duration.[96] What is important to recognize, however, is that it isn't the amount of contact time, but the ways time was used by students, and the extent to which we, as educators, attended to the principles of effective instruction. Further, the measures we have developed, while specific to the professional context in which they were developed, represent assessment strategies that can be and

92. *Id.* at 156, 170–71.

93. *Id.* at 156, 171–72.

94. *Id.* at 156, 173–74.

95. *Id.*; *see also* G. Rogers & Marcia Mentkowski, *Abilities that Distinguish the Effectiveness of Five-Year Alumna Performance Across Work, Family, and Civic Roles: A Higher Education Validation*, 23 HIGHER EDUC. RESEARCH & DEV. 347, 358 (2004).

96. The dental ethics curriculum in place from 1982 to 2000 (Classes of 1985 to 2000) consisted of forty-five contact hours distributed over the four years. The number of contact hours during those years was sufficient to bring about change that can be attributed to the curriculum. Special features include: (1) baseline assessment on outcome measures of moral judgment and identity formation, (2) small group instruction with required attendance and participation, (3) emphasis on performance, self-assessment and personalized feedback, (4) use of validated classroom assessment methods that were checked for validity and reliability, (5) involvement of high status professionals in design of the measurement instruments and in providing personalized feedback to students at critical points in their education, (6) involvement of faculty with ethicists in design of the instruction and in teaching, and (7) a final assessment prior to graduations on measures of identity formation, moral judgment (DIT scores) and context-specific ethical reasoning and judgment (DERJT scores), followed by personalized feedback to inform each student of their developmental progress as they set goals for their future professional development.

have been[97] adapted for other professional education settings. Each of the measures we have designed for the dental curriculum has been adapted.[98]

For the past twenty-five years, I have conducted research on teaching and learning in the context of an on-going curriculum in professional ethics. Periodically, I have reflected on results of multiple measures of student learning and student perceptions of learning, because as an educator I draw insights from performance on classroom measures, outcome measures, analysis of student self-assessment of learning, and analysis of student perspectives from anonymous course evaluations.[99] From these sources of course-based evidence, I advance four insights from my experience that may be useful to curriculum designers.

A. Ground the goals and purposes of ethics education in the Four Component Model of Morality.[100] Begin by focusing on the individual's conception of a professional identity and its congruence with personal, societal, and professional expectations set by the profession itself.

In my experience, ethics education too often begins with a focus on moral quandaries, sometimes preceded by a brief review of moral theories. Such an approach is sure to engage students intellectually but it also can do them a disservice. When a student is asked to take a position on an ethical dilemma when the student has had little opportunity to become acquainted with professional and societal expectations, he or she may take a protective stance derived only from his or her personal moral values. In contrast, carefully crafted educational experiences can ask a student to reflect on what it means to become a professional and to exploring how the profession's value system and one's own are congruent.

No one has to become a dentist or physician or lawyer, but if one decides to do so, the argument goes, the profession as a whole has a right and responsibility to expect that an individual who takes the oath of office not only means it, but knows what it means. Most students are unlikely to enter professional school with a clear vision of societal and professional

97. Researchers who have adapted our measure to other settings are referenced in Appendix A.

98. See Appendix A for a description of each of the outcome measures and references to adaptations for other settings. For descriptions of classroom measures designed to promote development of each of the components, see Monson, Roehrich & Bebeau, *supra* note 26.

99. *See, e.g.*, Muriel J. Bebeau, *Influencing the Moral Dimensions of Dental Practice*, *in*: MORAL DEVELOPMENT IN THE PROFESSIONS, *supra* note 16, at 121.

100. Educational programs can: (1) Promote *sensitivity* to the ethical issues that are likely to arise in practice; (2) Build the capacity for *reasoning* carefully about conflicts inherent in practice; (3) Develop a sense of personal *identity* that incorporates professional norms and values; and (4) Build *competence* in problem solving and interpersonal skills.

expectations[101], and are not likely to intuit them from the general educational process. Professional education works best when it is conveyed as an opportunity to reflect on this important commitment. Educators should not assume that if a student has entered professional school, he or she has resolved personal and professional expectations, or integrated them into one's identity as a dentist, lawyer or physician.

Students are seldom encouraged during the course of professional education to reflect on the initial commitment to professionalism they described in admissions essays and to refine it based upon new understanding.[102] This is not only a missed opportunity, but reinforces the kind of cynicism that develops as students realize the complexity of professional practice and the difficulty of living up to the ideals with which they began their educational journey.

B. Design ethics curricula appropriate to the students' level of professional development.

Genetic engineering and cloning may be intriguing value problems for medical ethicists, but seldom are such problems of central concern to the novice. Rather, students worry about problems that are more mundane (e.g., performing a physical examination on a very ill patient, speaking up when noticing a questionable practice performed by a superior, managing conflicting directives given by a resident and an attending physician, responding to an angry patient, deciding whether the physician has the right to assert his or her values with respect to filling prescriptions for "the morning after" pill). As I have argued, students need not only to decide on an ethically defensible response, but they need to work out the practicalities of effectively implementing their good intentions.

C. Expect professional schools to make expectations of the profession explicit and to develop reflective, self-directed learners who understand and apply them.

Professional schools are most effective when faculty collaborate to design and utilize measures of ethical sensitivity, moral reasoning, and role concept to provide students with insight about their own personal and professional development. Such curricula assist students to become reflective and self directed. Measures of life-span development (e.g., DIT) can be used to provide students with personal insight as to how their skills at ethical reasoning and judgment compare with their peers and with expert judgment. Likewise, profession-specific measures like the DERJT or the PROI can be

101. The school's role is "to help students to construct and internalize a moral compass by which to lead their lives." (Richard Vogel, 2006—interim dean NYU) (resource on file with the author).

102. *See* Charles N. Bertolami, *Why Our Ethics Curricula Don't Work*, 68 J. OF DENTAL EDUC. 414 (2004).

used to counsel students about the development of their abilities so each can engage in more reflective practice. A part of reflective practice is to set personal learning goals.

D. Define and validate behavioral indicators of professionalism appropriate to the setting and engage students in achieving consensus on their importance for self-monitoring as well as for monitoring one another.

Behavioral indicators may include meeting commitments, treating others (including faculty) respectfully, self-monitoring the use of mood-altering drugs, or showing concern for fellow students and their personal and intellectual progress. Students who are engaged in defining professional expectations are likely to participate in self-monitoring and self assessment—and integrating their personal values with those of the profession. Professional school educators know that most patients or clients will implicitly evaluate professionals on the basis of these expectations throughout their career. By engaging students in defining professional expectations and discussing their implications, we include bottom-up processes of empowering students to articulate their understanding of what patients, clients, and their own peers expect. Eliciting student opinions and judgments empowers them to engage in future professional activities that help to sustain their vision and values and prime them to advance the meaning of their profession with their colleagues. Coaching student leaders to raise the bar for their peers in pro bono and other community service is more effective than inadvertently promoting a *laisez faire* approach that may miscommunicate rather than shape student culture and values.

V. Building an Educational Environment to Support Ethical Development and Professionalism

Professional growth and personal development are best accomplished in a cooperative and collegial learning environment—one that uses multiple educational paradigms and multiple methods of assessment. In an age of "grade inflation," educators are responsible for defining levels of competence, not just for ethics and professionalism, but for the broad abilities[103] (of which ethical development is one) required for professional practice. Developing individual student capacities also implies systematically evaluating the impact of their learning experiences and their entire curriculum on

103. Alverno College is one of the more frequently cited examples of institutions where faculty and academic staff describe their graduates' accomplishments with reference to what the graduate can do with what they know, rather than by what grades students achieve in courses. For a discussion of the formation of a curriculum grounded in performance of abilities that are developed and assessed across the curriculum in the context of the disciplines and professions, see Marcia Mentkowski et al., Learning That Lasts: Integrating Learning, Development and Performance in College and Beyond (2000).

their ongoing performance at the level of the course, department, and curriculum. Accrediting bodies are increasingly asking for evidence of program effectiveness in promoting developmental growth.

Creating an environment that supports ethical development and professionalism is a challenging undertaking. As guidance for the design of a program, consider the following observations and recommendations. First, education to promote ethical and professional development is most effective when it takes place over an extended period of time in the context of an overall program. Including a one or two credit course on the code of ethics or on moral quandaries of the profession somewhere in the curriculum does not convey a school or a profession's commitment to promoting ethical development and professionalism. As I have shown, it is not the quantity, but the quality of efforts to engage students in reflection and goal setting for their own emerging capacities as well as an all school effort to set forth a climate that encourages and enables students to practice professional self-monitoring and regulation of their profession.

Second, this kind of education employs principles of effective instruction—active learning and opportunities for practice, assessment and self assessment, feedback from multiple sources, and opportunities for reflection, and feedback. Assessment that is conceptualized as a way of helping students learn as well as credentialing their performance is most effective, in contrast to using assessment solely for selecting or sorting students. Third, instruction is more likely to be effective when provided by faculty who are actively engaged in professional practice and are actively collaborating with those with disciplinary expertise, and with expertise in both philosophy and psychology of teaching and learning.

Fourth, the institution is responsible for attending to the moral milieu. Because students learn from observing peers and faculty, institutions who assess professional behaviors within an environment where those behaviors are not institutional norms presents a considerable challenge and risks being perceived as organizational hypocrisy.[104] There must be a whole school commitment that includes modeling the professional behavior we wish to promote. Modeling will also extend, from time to time, to confronting issues of intolerance, arrogance, entitlement, or paternalism. When brought to professional settings, such behaviors can be devastating—to clients, patients, and to careers. This dimension of personal development cannot be relegated to a single ethics course, but rather must be woven into the fabric

104. There is extensive literature documenting the rise of cynicism in professions education. Cynicism develops when a young professional is faced with challenging problems. The individual must act, but has had no opportunity to receive coaching, with appropriate practice and feedback, about how to address the problems in a safe setting. Consider a young professional having to initiate a conversation with a colleague whom he or she observed violating a professional norm. Without instructional guidance on how to approach such a problem, the novice is likely to be accusatory. Practice, feedback, and self assessment are necessary for the development of competence and confidence.

of school culture. The ultimate respect we can accord students is to act as swiftly in confronting these issues as would a human resources officer with an employee.

Finally, a professional ethics curriculum needs to promote a sense of the profession's collective responsibility for the welfare of society. The role of the educator is to raise such consciousness. Professional bodies that exercise their collective responsibility to promote the public good will engender the trust society has carefully extended.

SEE TABLES AND FIGURES BELOW

Table 1: Rest (1983) posits at least four distinct and interactive processes as necessary conditions for moral action. Moral failing may be attributable to a deficiency in one or more of these processes or capacities. The following descriptions were adapted from a number of sources to apply to legal education.[105]

Ethical Sensitivity is "the ability to interpret the reactions and feelings of others. It involves being aware of alternative courses of action, knowing cause-consequence chains of events in the environment and how each would affect the parties concerned. For individuals being socialized to professional practice, ethical sensitivity involves the ability to see things from the perspective of other individuals and groups . . . and more abstractly, from legal, institutional, and national perspectives. Thus, it includes knowing the regulations, codes and norms of one's profession and knowing when they apply."[106]

Moral Reasoning takes place once a professional has identified a moral issue and is aware of possible lines of action and how people would be affected by each line of action (Component 1), then moral reasoning involves judgment concerning which line of action is more morally justifiable—which alternative is just or right? It involves deliberation regarding the various considerations relevant to different courses of action and making a judgment regarding which of the available actions would be most morally justifiable. It entails integrating both shared moral norms and individual moral principles.[107]

Moral Motivation and Commitment and Professional Identity have to do with the importance given to moral values in competition with other values. A professional may know which alternative course of action is just

105. Neil W. Hamilton & Lisa Montpetit Brabbit, *Fostering Professionalism Through Mentoring*, 57 J. LEGAL EDUC. 102, 115–16 (2007).

106. *Id.* (quoting Muriel Bebeau, *The Defining Issues Test and the Four Component Model*, 31 J. MORAL EDUC. 271, 283 (2002)); MURIEL BEBEAU, THE DEFINING ISSUES TEST AND THE FOUR COMPONENT MODEL: CONTRIBUTIONS TO PROFESSIONAL EDUCATION, 31, 271 (2002).

107. Hamilton & Brabbit, *supra* note 105; *see also* Bebeau et. al., *supra* note 63. For a summary of these concepts, see Neil W. Hamilton, *Legal Practice and Moral Psychology in Minnesota*, MINN. LAWYER, Sept. 29, 2003.

or right (Component 2), but the professional may not be sufficiently motivated to put moral values higher than other values. Values such as self-interest in terms of income or wealth, protection of one's organization or community, or self-actualization might trump concern for doing what is just or right. "Professional identity" fits within Moral Motivation and Commitment as a significant factor. Professional identity is the degree to which the professional understands and internalizes the concepts of professionalism. For example, in the legal profession, professional identity would be the degree to which the lawyer understands and has internalized the principles of professionalism.[108]

Moral Character and Implementation Skills focus on whether the professional has sufficient pertinacity, ego strength, toughness, strength of conviction and courage to implement his or her moral reasoning (in contrast, is the professional weak-willed or easily distracted or discouraged?). A professional must also be able to determine an effective action plan and to carry the plan out. Creative problem solving is critical for Moral Character and Implementation.[109]

108. Hamilton & Brabbit, *supra* note 105; *see also* JAMES T. RULE & MURIEL J. BEBEAU, DENTISTS WHO CARE: INSPIRING STORIES OF PROFESSIONAL COMMITMENT (2005); Susan A. Roehrich & Muriel J. Bebeau, *Professional Identity Development: Entering Dental Students' Conceptions of Professionalism* (forthcoming).

109. Hamilton & Brabbit, *supra* note 105; *see* REST ET AL., *supra* note 78. For a summary of this concept in the context of legal education, see Neil W. Hamilton, *Moral Psychology and the Education of Lawyers*, MINN. LAWYER, Dec. 15, 2003, at "Moral character and implementation."

FIGURES 1–8:

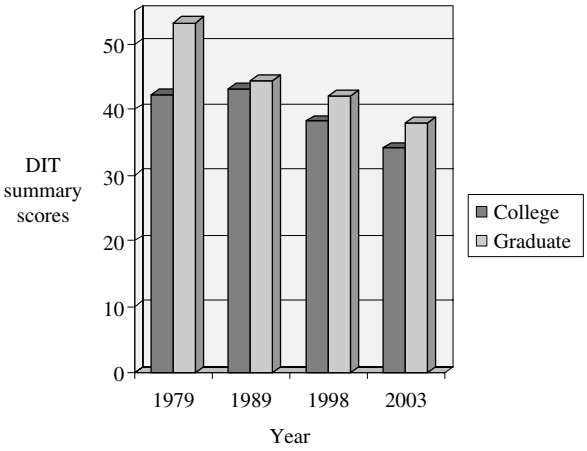

Figure 1. Declines in DIT summary scores for four composite samples used to construct norms.

Note: The smaller mean difference between College students and Graduate students evident in the 1989, 1998, and 2003 composite samples is attributable to a broadening of criteria for defining what constitutes graduate education.

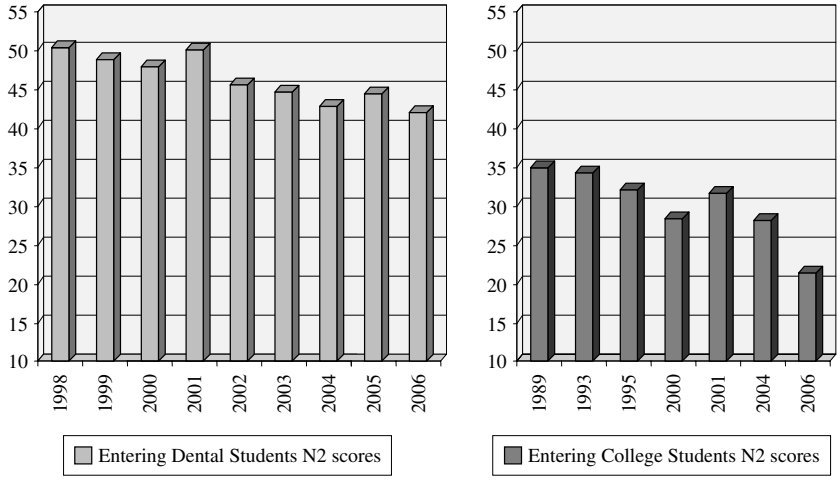

Figure 2. Summary scores by class for two long-term cross-sectional samples collected within clearly defined settings

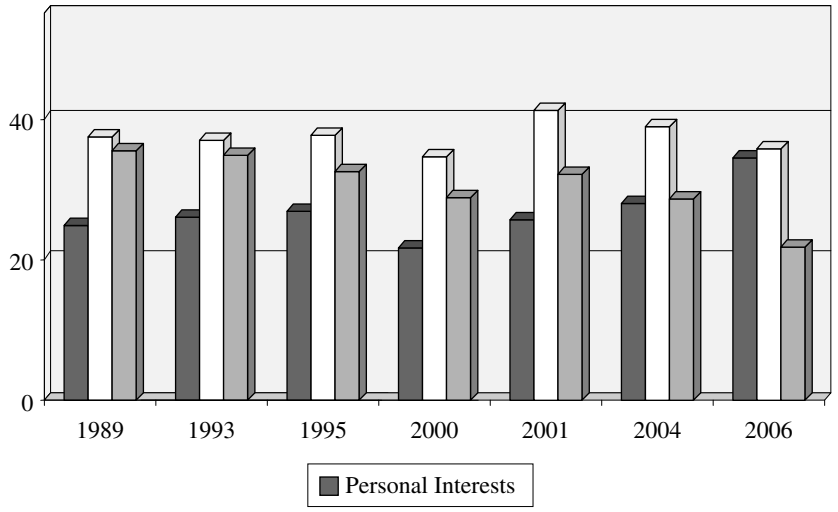

Figure 3. College Student's DIT schema scores by year.

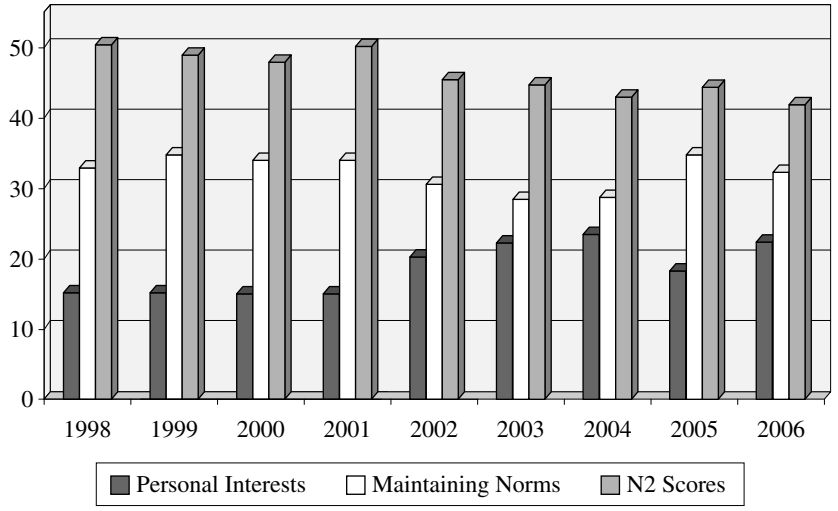

Figure 4. Entering dental student's DIT schema scores by year.

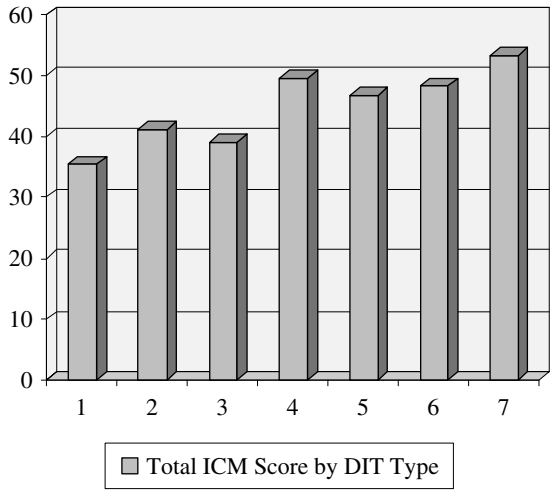

Figure 5. Mean Total ICM scores by DIT Moral Type for nine cohorts (n = 730) of senior dental students

Note: Sample size for the different types are as follows: Type 1: n = 7; Type 2: n =38; Type 3: n = 38; Type 4: n = 128; Type 5: n = 63; Type 6: n = 86; and Type 7 = 370.

Figure 5 depicts the results of the analyses. First, the overall F test for the difference in ICM scores across Type classifications was statistically significant suggesting that ICM scores do vary by Type classifications ($F(6, 714) = 16.56$, $p < 0.05$). In addition, all of the planned comparisons were statistically significant. The most striking difference was associated with contrast between Types 1–3 and Types 4–7. Here participants who evidence personal interest reasoning obtained substantially lower ICM scores than their peers. Contrasts focusing within the Type 4–7 range were all in the anticipated direction although somewhat smaller in magnitude. Specifically, consolidated Types 4 and 7 were associated with higher ICM scores than the transitional Types 5 & 6. Similarly, ICM scores for the consolidated Type 7 group were higher than participants identified as Type 4 (consolidated maintaining norms).

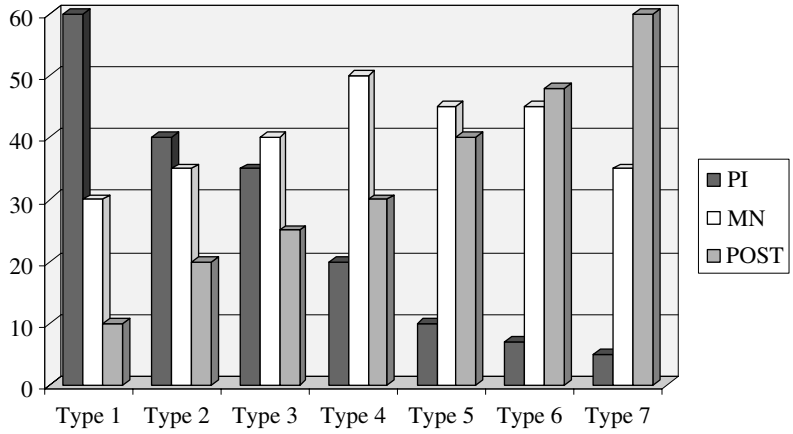

Figure 6. Seven Hypothetical Types in Terms of Development and Consistency in Moral Reasoning. Each profile indicates schema preference (Personal Interest, Maintaining Norms, or Postconventional) and the extent to which the individual distinguishes among the three schemas (i.e., is said to be consolidated on one of the schemas, as illustrated by Types 1, 4, and 7) or does not distinguish among schemas (is said to be in transition between two schemas, as illustrated by Types 2, 3, 5, and 6).

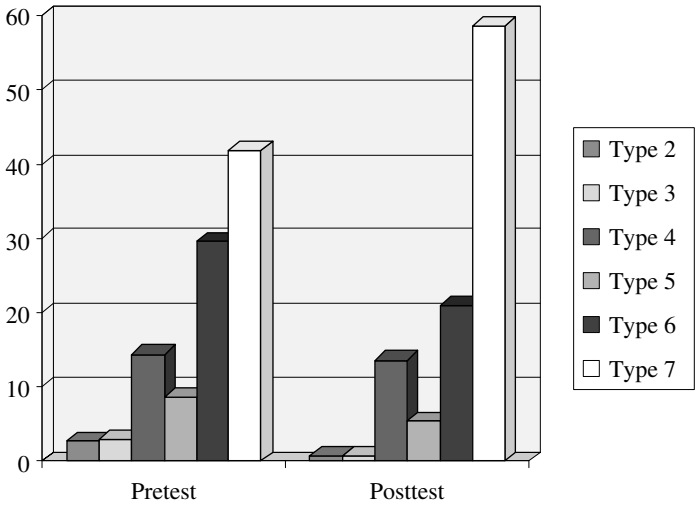

Figure 7. Change in DIT profiles from pretest to posttest for 15 cohorts (Classes of 1985 to 2000) of dental students (n = 1,207)

Note: Type 2 = 2.6% at pretest, 0.7% at posttest; Type 3 = 2.8% at pretest, 0.7% at posttest; Type 4 = 14% at pretest, 13.5% at posttest; Type 5 = 9 % at pretest, 5 % at posttest; Type 6 = 30% at pretest, 21% at posttest, Type 7 = 42% at pretest, 59% at posttest.

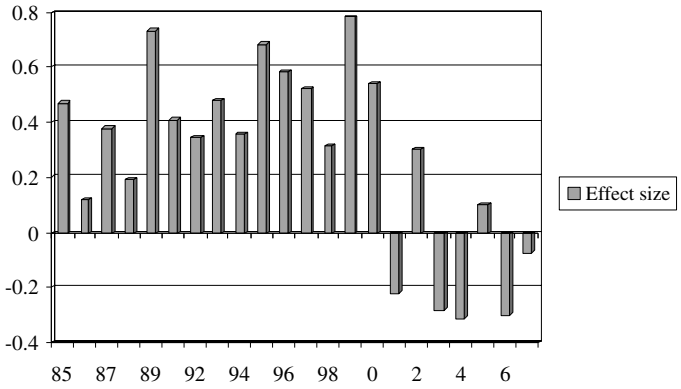

Figure 8. DIT effect sizes* reflects change from pretest to posttest for twenty-three cohorts of U of MN dental students. In 2000, and from 2003 to 2007, the curriculum interventions for third and four year student were dramatically changed and the amount of time was reduced.

Note: A meta-analysis of intervention studies (Schlaefli, Rest, and Thoma (1985) indicated that an effect size of .35 indicates a statistically significant change attributable to an educational intervention.

APPENDIX A

The Dental Ethical Sensitivity Test (DEST)[110] was designed in the early 1980s as a prototype for assessing Rest's first component in a professional setting. The DEST currently in use has two forms, each consisting of four short dramas in which ethical issues are embedded. The dramas, written to present common ethical problems frequently encountered in dental practice, are presented on a series of audiotapes. In the late 1980s, Moshe Ernest,[111] developed the Geriatric Dental Ethical Sensitivity Test (GDEST) in which short videotapes of patients with various cognitive impairments accompanied patient records documenting complex dental and psychosocial problems. The test is administered in an assessment setting. Participants respond to an audio or videotaped conversation between the professional and a patient or between professionals. At a certain point in the evolving drama, participants are asked to take the role of the professional and interact with the patient or client as they see fit, using actual dialog. Following that, participants respond to a series of probe questions designed to further elicit their interpretation of the situation. Such questions are effective in revealing a participant's biases. Participants' responses are recorded and transcribed for scoring. Responses are scored by assigning ratings to indicate the degree (usually on a three-point scale) to which the participant (1) seems to have appropriately interpreted characteristics of the patient that need to be addressed if the patient's needs are to be met, and (2) recognize the responsibilities of the professional in meeting those needs. Judgments are based not on the quality of the solution offered or the quality of the interpersonal interaction skills displayed, but upon the extent to which what is said reflects recognition of the issues.

The Defining Issues Test (DIT)[112], constructed in the early 1970s, consists of six stories or dilemmas; each followed by twelve items (as "issues" of the moral dilemma). A newer version (DIT-2), constructed in the late 1990s, consists of five stories; also followed by twelve items. Participants

110. For an expanded description of the DEST and initial validation studies, see M. J. Bebeau, J.R. Rest, & C.M. Yamoor, *Measuring dental students' ethical sensitivity*, 49 J. OF DENTAL EDUC. 225, 225–35 (1985). To access the DEST, visit http://centerforthestudyofethicaldevelopment.net/index.html.

111. Since the early 1980, as many as nineteen measures of ethical sensitivity have been described in the literature, but to date only the DEST, the GDEST and the REST (Racial Ethical Sensitivity Test)—designed by Brabeck and colleagues for assessing sensitivity of school psychologists to issues of race and gender—have been extensively validated. *See* M.M. Brabeck, L.A. Rogers, S. Sirin, J. Henderson, M. Benvenuto, M. Weaver, et al., *Increasing ethical sensitivity to racial and gender intolerance in schools: Development of the Racial Ethical Sensitivity Test*, 10 ETHICS AND BEHAVIOR 119 (2000). For a review of ethical sensitivity measures, see D. You & M.J. Bebeau, Moral Sensitivity: A Review (Paper presented at that Annual Meeting of the Assoc. for Moral Educ., November 3–5, 2005, Cambridge, MA).

112. For information on the availability of the DIT or the DIT-2, see http://centerforthestudyofethicaldevelopment.net/index.html. For the most up-to-date summary of the literally hundreds of studies on the DIT, see S.J. Thoma, *Research on the Defining Issues Test*, *in* HANDBOOK OF MORAL DEVELOPMENT, 67–92 (M. Killen & J.G. Smetana eds., 2006).

are first asked to decide what the protagonist in the story do, and are then asked to rate and rank the items in terms of their importance in solving the moral dilemma. For over twenty-five years the summary score of the DIT most frequently used has been the "P" score, which is calculated from ranking data and attends to items designed as Stages 5 and 6 in the Minnesota group's revision of Kohlberg's postconventional stages (e.g., Kohlberg, 1969). The P score is interpreted as the relative importance given to Postconventional (i.e., Stages 5 and 6) moral considerations. The N2 score developed in 1998 is a recent improvement over the P score as an overall estimate of moral judgment development. In the late 1990s, the construct measured by the DIT was reinterpreted to address challenges from moral psychology and philosophy.[113] Based upon large-sample analyses, it appears that the DIT measures three developmentally ordered schemas: personal interest (incorporating aspects of Kohlberg's stages two and three), maintaining norms (closely aligned with Kohlberg's stage 4) and Post-conventional schema (the traditional P score mentioned above). The validity and reliability of the DIT is fully discussed in Rest, Narvaez, Bebeau, and Thoma (1999) and in Thoma (2006).

In addition to the summary scores, the DIT provides information on developmental phase or the degree to which the individual's pattern of responses across schema-based items suggests a consolidated or transitional pattern (Thoma, 2006). The developmental phase information can be combined with the schema usage indicators to create the "Type" variable. This variable has seven levels. Levels 1, 4 and 7 represent a consolidated pattern at each of the three moral schema measured by the DIT (1- personal interest, 4- maintaining norm and 7- post-conventional). The remaining levels reflect various transitional patterns based on the dominant and subdominant schema usage. Thus, Type 2 and 3 are both transitional patterns but Type 2 is associated with a dominant personal interest schema whereas Type 3 is defined by a dominant maintaining norms schema with personal interest schema as subdominant. Similarly, Type 5 and 6 vary by whether maintaining norms or personal interest is dominant or subdominant.

The Dental Ethical Reasoning and Judgment Test[114] is designed as a context-specific measure of concepts thought to lie in an intermediate zone between general ethical principles and profession specific codes of ethics. Hence the measure is referred to as an ICM (Intermediate Concepts Measure). Since the dental ICM was developed and validated, three other measures have been designed and validation work is in progress.[115] Participants

113. *See* REST ET AL., *supra* note 78.

114. M.J. Bebeau, & S.J. Thoma,*"Intermediate" concepts and the connection to moral education*, 11(4) EDUC. PSYCHOL. REV. 343, 343–60 (1999).

115. In addition to an Adolescent ICM, field testing is currently in progress on a Medical ICM (designed by Catherine Caldicott and Kathy Faber-Langendoen at Center for Bioethics and Humanities, SUNY Upstate Med. Univ.) and on a Military Leader ICM (designed by Lt Col. Michael Turner under the direction of Steve Thoma, Turner's dissertation advisor).

are asked to read a story designed to illuminate a particular intermediate concept (e.g., informed consent). After reading the story, participants are provided with a number of statements that have been identified as acceptable or unacceptable action choices by expert judges. Expertise in this case was defined as established dentists with ethical training. In completing the measure, participants rate each item and then in a second pass through the items, rank the three most appropriate and two most inappropriate actions. This rating and ranking task is repeated for items written to reflect a range of appropriate and inappropriate justifications for action. Thus, for each story on the measure four major sources of information are provided: the participant's perception of good and bad action choices plus appropriate and inappropriate justifications. The dental ICM has five stories.

Individual ranking data is combined across stories and used to derive three summary indices: (1) Three scores are reported: 1) percent of good action and justification choices that agree with expert judgment; 2) percent of bad action and justification choices that agree with expert judgment; and 3) an overall score which combines recognition of both good and bad actions and justifications. Therefore, a high Total ICM score indicates that the participant is identifying both acceptable and unacceptable items—across action choices and justification—as good and bad respectively.

The Dental ICM has demonstrated acceptable reliability estimates. Internal consistency estimates range in the 70s and low 80s.[116] The validity of the measure primarily has been supported by comparing known groups. For example, college freshmen, who presumably know less about intermediate concepts that apply to dentistry than dental students beginning their program of study, score lower on the Dental ICM measure and scales than do beginning dental students, and beginning students score lower on the Dental ICM than senior dental students. Further, the Dental ICM has been shown to be sensitive to an ethics intervention and a particularly useful tool for identifying deficiencies in profession-specific reasoning. It is not uncommon for professionals to select as the worst action or justification what experts think is best. Finally, correlations with the DIT indicate a significant but moderate correlation suggesting that the two scores represent similar domains yet the two measures do not subsume each other[117]

The Professional Role Orientation Inventory (PROI)[118] consists of four ten-item scales designed to assess commitment to privilege professional values over personal values. The Authority and Responsibility Scales assess dimensions of professionalism that undergird models of professionalism described in the professional ethics literature (Guild Model, Service

116. Bebeau & Thoma (1999).

117. *Id.*

118. M.J. Bebeau, D.O. Born, & D.T. Ozar, *The development of a professional role orientation inventory*, 60(2) J. OF THE AM. COLLEGE OF DENTISTS 27, 27–33 (1993).

Model, Agent Model, Commercial Model)[119] The PROI scales, in particular the responsibility and authority scales, have been shown to consistently differentiate beginning and advanced student groups and practitioner groups expected to differ in role concept. By plotting responses of a cohort group on a two dimensional grid (see Bebeau et al., 1993), it is possible to observe four distinctly different views of professionalism which, if applied, would favor different decisions about the extent of responsibility to others (e.g. the Agent or Commercial Model). In comparing practicing dentists with entering students and graduates, Minnesota graduates consistently express a significantly greater sense of responsibility to others than entering students and practicing dentists from the region. This finding has been replicated for five cohorts of graduates (n = 379). Additionally, the graduates' mean score was not significantly different from a group of forty-eight dentists, who demonstrated special commitment to professionalism by volunteering to participate in a national seminar to train ethics seminar leaders. A recent comparison of pretest/posttest scores for the Classes of 1995–2000 (You, 2007) indicated statistically significant change from pretest to posttest, but also a time by gender interaction indicating greater change for women (d = 1.39) than men (d = 1.00) on the measure of motivation. A cross-sectional study of differences between pre and posttest scores for a comparable dental program suggests that ethics instruction accounts for change.

A series of studies[120] attest to the construct validity and test-retest reliability especially for the Authority and Responsibility Scales. Test-retest reliability for the items is .75, with a range of .68 to .82 for the four scales. In her large scale study, Kang observed that the overall internal consistency of the measure (.56) is weakened by a lack of independence of the Autonomy and Agency scales. In sum, the Authority and Responsibility dimensions appear to be core dimensions of models of professionalism and most sensitive to intervention effects. To date, the Agency and Autonomy scales have been less reliable contributors to insights about intervention effects, but they have been useful diagnostically to identify individuals whose sense of agency or autonomy is either consistent with or deviates from norms for Kang's sample of American College of Dentistry (ACD) fellows. Membership in the ACD is by nomination based upon demonstrated integrity and community service. The ACD's mission is to promote ethics and professionalism in dentistry. The PROI measure has been adapted for other set-

119. *See, e.g.*, E. Emanuel & L. Emanuel, *Four models of the physician-patient relationship*, 267(16) JAMA, 2221 (1992); D.T. Ozar, *Three models of professionalism and professional obligation in dentistry*, J. AM. DENT. ASSOC., 1985, at 110, 173–77; RM Veatch, *Models for ethical medicine in a revolutionary age*, HASTINGS CENTER REPORT 1972, at 2, 5–7.

120. *See* S.J. Thoma, M.J. Bebeau, & D.O. Born, *Further Analysis of the Professional Role Orientation Inventory*, 77 J. OF DENTAL RESEARCH (Special Issues, Abstract) 116, 120 (1998) and a recent study by Kang (2005); s*ee also* Y. Kang, A validation study of the professional role orientation inventory (PROI) (2005) (unpublished doctoral dissertation, Univ. of Minn., Twin Cities) (on file with author).

tings, e.g., physical therapy[121] (Swisher et al., 2004), and adaptations are currently underway in other professions and cultural settings.

Professional Problem Solving[122] scores were selected by Di You[123] to serve as a profession-specific proxy measure for component 4, moral implementation. Scores (ranging from zero to thirty-two) were tallied for each student at the end of the fourth year of dental school. The total score assigned represented eight judgments (zero to four points each) made about an individual student's ability to implement action plans for eight complex cases that present difficult human interaction problems. Students are required to plan strategies for handling a challenging case, try out dialog on a peer, then submit a case write-up that includes (1) an interpretation of the facts that must be addressed if the problem is to be resolved efficiently; (2) an action plan; and (3) a verbal dialogue to illustrate the implementation of the action plan. A checklist, prepared for each case, assures some uniformity in judging responses. All responses are scored by the course director. Students have a chance to challenge their score and to revise their response based upon the written feedback they receive. They also have a chance to submit a revised response to raise their grade on the exercise. Whereas the relationship between these scores and long term competence has not been established, these performance-based assessments have face validity, in that they reflect what the individual thinks would be appropriate to say and do in a clinical setting.

121. L.L. Swisher, J.W. Beckstead, & M. J. Bebeau, *Models of professionalism: Confirmatory factor analysis of the Professional Role Orientation Inventory among physical therapists*, 84(9) PHYSICAL THERAPY, 784 (2004).

122. M.J. Bebeau, *Influencing the moral dimensions of dental practice*, *in* MORAL DEVELOPMENT IN THE PROFESSIONS, *supra* note 16, at 121–46.

123. Di You (2007) (score selection on problem solving from dental school program).