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DONALD SCHÖN, THE REFLECTIVE PRACTITIONER, AND THE COMPARATIVE FAILURES OF LEGAL EDUCATION

RICHARD K. NEUMANN JR.*

Schön came as close as anyone I have ever seen to developing a theory of what it is that professionals — in all disciplines — do in modern society, and how they do it.

- Ken Gallant

In the clinical literature, one of the most oft-quoted of non-lawyers has been Donald A. Schön, a professor at MIT's School of Architecture and Planning who did a highly original investigation into how professionals of all kinds think and educate. In this journal¹ and in others² and even overseas,³ he has been cited almost routinely. Most

* Professor of Law, Hofstra University. I am grateful to Stephen J. Ellmann for suggesting the idea of this article and to John S. Elson for his comments on the manuscript.

¹ Mark N. Aaronson, *We Ask You to Consider: Learning about Practical Judgments in Lawyering*, 4 CLIN. L. REV. 247, 263 (1998); Stacy Caplow, *A Year in Practice: The Journal of a Reflective Clinician*, 3 CLIN. L. REV. 1, 5, 45, 53 (1996); John S. Elson, *The Regulation of Legal Education: The Potential for Implementing the MacCrate Report's Recommendations for Curricular Reform*, 1 CLIN. L. REV. 363, 382, 387 (1994); Peter A. Joy, *The MacCrate Report: Moving Toward Integrated Learning Experiences*, 1 CLIN. L. REV. 401, 410 (1994); Harriet N. Katz, *Using Faculty Tutorials to Foster Externship Students' Critical Reflection*, 5 CLIN. L. REV. 437, 454 (1999); Kimberlee K. Kovach, *The Lawyer as Teacher: The Role of Education in Lawyering*, 4 CLIN. L. REV. 359, 390 (1998); Gary Laser, *Significant Curricular Developments: The MacCrate Report and Beyond*, 1 CLIN. L. REV. 425, 426-27, 442 (1994); Jennifer P. Lyman, *Getting Personal in Supervision: Looking for That Fine Line*, 2 CLIN. L. REV. 211, 229 (1995); John B. Mitchell, Betsy R. Hollingsworth, Patricia Hall & Raven Lidman, *And Then Suddenly Seattle University Was on Its Way to a Parallel, Integrative Curriculum*, 2 CLIN. L. REV. 1, 35 (1995); Linda Morton, Janet Weinstein & Mark Weinstein, *Not Quite Grown Up: The Difficulty of Applying an Adult Education Model to Legal Externs*, 5 CLIN. L. REV. 469, 525 (1999); J.P. Ogilvy, *The Use of Journals in Legal Education: A Tool for Reflection*, 3 CLIN. L. REV. 55, 75, 107 (1996); Fran Quigley, *Seizing the Disorienting Moment: Adult Learning Theory and the Teaching of Social Justice in Law School Clinics*, 2 CLIN. L. REV. 37, 72 (1995); Rodney J. Uphoff, *The Criminal Defense Lawyer as Effective Negotiator: A Systemic Approach*, 2 CLIN. L. REV. 73, 135 (1995).

² The following is a small sample among many references: Frank S. Bloch, *Framing the Clinical Experience: Lessons on Turning Points and the Dynamics of Lawyering*, 64 TENN. L. REV. 989, 1009 (1997); Stacy Caplow, *From Courtroom to Classroom: Creating an Academic Component to Enhance the Skills and Values Learned in a Student Judicial Clerkship Clinic*, 75 NEB. L. REV. 872, 915 (1996); Robert J. Condlin, *Socrates' New Clothes: Substituting Persuasion for Learning in Clinical Practice Instruction*, 40 MD. L. REV. 223, 231-32 (1981); Robert D. Dinerstein, *A Meditation on the Theoretics of Practice*, 43 HASTINGS L.J. 971 (1992); Norman Fell, *Development of a Criminal Clinic: A Blended Approach*, 44 CLEV. ST. L. REV. 275, 283, 290, 301 (1996); Jonathan M. Hyman, *Discovery and Invention: The NITA Method in the Contracts Classroom*, 66 NOTRE DAME L. REV.

of these are passing references,⁴ although sometimes a significant part of an article's direction appears to have been influenced by Schön's thinking.⁵ So many law school teachers have been Schön fans for so long that for the 1992 annual meeting of the Association of American Law Schools, he was invited to speak on building pedagogical bridges between theory and practice.⁶

Schön died in September 1997 at the age of 66. Now that his life's work is over, it is possible to step back and assay, as a whole, the insights that have caused so many of us to read, quote, and cite him. I will explain the background of Schön's work (Part I of this article); summarize his key insights (Part II); and suggest how we might build on his work (Part III).

I. BACKGROUND

Schön earned his college and graduate degrees in philosophy.⁷ Along the way, he went to Paris and studied at the Sorbonne and at the Conservatoire Nationale de Musique, where he won the Premier Prix in clarinet. Throughout his life, he was an accomplished pianist and clarinetist and was devoted to jazz.

Schön taught philosophy for a short time, but from 1957 to 1963, he worked for Arthur D. Little, Inc., doing industrial research. For three years, he was director of the Institute for Applied Technology in the U.S. Department of Commerce. Then, in 1966, he co-founded a

759, 784 (1991); Andrea L. Johnson, *Teaching Creative Problem Solving and Applied Reasoning Skills: A Modular Approach*, 34 CAL. W.L. REV. 389, 395 (1998); Philip C. Kissam, *Conferring with Students*, 65 UMKC L. REV. 917, 923, 929 (1997); Susan G. Kupfer, *Authentic Legal Practices*, 10 GEO. J. LEGAL ETHICS 33, 113 (1996); Carrie Menkel-Meadow, *The Trouble with the Adversary System in a Post-Modern, Multicultural World*, 38 WM. & MARY L. REV. 5, 44 (1996); Joan S. Meier, *Notes from the Underground: Integrating Psychological and Legal Perspectives on Domestic Violence in Theory and Practice*, 21 HOFSTRA L. REV. 1295, 1366 (1993); Gerald R. Williams, *Negotiation as a Healing Process*, 1996 J. DISP. RESOL. 1, 66.

³ For example, Julian Webb, *Where the Action Is: Developing Artistry in Legal Education*, 2 INT'L J. LEG. PROF. 187 (1995).

⁴ Citations to Schön in the medical literature are also mostly of the passing-reference variety. For example, see Cyril Chantler, *The Role and Education of Doctors in the Delivery of Health Care*, THE LANCET 353 (9159): 1178-81 (1999); Frank Davidoff, *Intelligence Work*, THE LANCET 352 (9131): 895-96 (1998); C. Erwin Johnson, Richard Bachur, Cedric Priebe, Andrea Barnes-Ruth, Frederick H. Lovejoy, Jr. & Janet Palmer Hafler, *Developing Residents as Teachers: Process and Content*, 97 PEDIATRICS 907-16 (1996).

⁵ For example, see Caplow, *supra* note 1; Condlin, *supra* note 2; Ogilvy, *supra* note 1; and Webb, *supra* note 3. In the medical literature, see Jack Ende, *Reflections on Teaching: An Essay Based on Two Books by Donald Schön*, 5 J. GEN. INTERNAL MED. 183 (1990).

⁶ His talk was published at Donald A. Schön, *Educating the Reflective Legal Practitioner*, 2 CLIN. L. REV. 231 (1995).

⁷ Schön said that his investigation of reflective practice grew directly from his reading of John Dewey while a student. See Donald A. Schön, *The Theory of Inquiry: Dewey's Legacy to Education*, 22 CURRICULUM INQUIRY 119, 123 (1992).

nonprofit social research and development company, which he ran until 1972, when he became Ford Professor of Urban Studies and Education at MIT.

In 1974, he published, with Chris Argyris, *Theory in Practice: Increasing Professional Effectiveness*, a book on the type of thinking that makes decision-makers effective.⁸ This was the first of three books exploring the theme of how professionals solve problems — although *Theory in Practice* was actually addressed to decision-makers in general and was not limited to the professions. The others, written by Schön alone, were *The Reflective Practitioner*, published in 1983,⁹ and *Educating the Reflective Practitioner*, published in 1987.¹⁰

With one exception,¹¹ none of Schön's other books pursued the themes of effective decision-making and professional problem-solving. To a legal educator, some of his earlier writing seems confused,¹² obvious,¹³ or superficial.¹⁴ The later books are better, but most of them address topics one might expect from a professor of urban planning (though one with a wide-ranging curiosity).¹⁵

⁸ DONALD A. SCHÖN & CHRIS ARGYRIS, *THEORY IN PRACTICE: INCREASING PROFESSIONAL EFFECTIVENESS* (1974, 1992). Argyris is a professor of education and organizational behavior at Harvard. Beginning in 1957, he published an extensive series of books on how organizations affect the behavior of the people who work within them and how the culture of an organization can be improved for the better. Schön collaborated with Argyris on two of those books, *Organizational Learning* (1978) and *Organizational Learning II* (1996), which extend to organizations some of the thinking in *Theory in Practice*. Schön once wrote that only Argyris and Eric Trist, former students of William Foote Whyte, might "stand tall" with Whyte as "steadfast critic[s] of academic orthodoxy." Donald A. Schön, *Review of Social Theory for Action: How Individuals and Organizations Learn to Change*, by William Foote Whyte, 38 ADM. SCI. Q. 1:149 (1993). As we shall see, that description also fits Schön as well.

⁹ DONALD A. SCHÖN, *THE REFLECTIVE PRACTITIONER: HOW PROFESSIONALS THINK IN ACTION* (1983).

¹⁰ DONALD A. SCHÖN, *EDUCATING THE REFLECTIVE PRACTITIONER: TOWARD A NEW DESIGN FOR TEACHING AND LEARNING IN THE PROFESSIONS* (1987, 1990).

¹¹ *THE REFLECTIVE TURN: CASE STUDIES IN AND ON EDUCATIONAL PRACTICE* (Donald A. Schön, ed., 1991). This is an anthology in which professionals in various fields describe examples of their own reflective work. It is much less helpful than *Theory in Practice*, *The Reflective Practitioner*, and *Educating the Reflective Practitioner*.

¹² DONALD A. SCHÖN [*sic* on the title page], *BEYOND THE STABLE STATE* (1971).

¹³ DONALD A. SCHÖN [*sic* on the title page], *TECHNOLOGY AND CHANGE: THE NEW HERACLITUS* (1967).

¹⁴ DONALD A. SCHÖN [*sic* on the title page], *DISPLACEMENT OF CONCEPTS* (1963) (re-published in 1967 as *INVENTION AND EVOLUTION OF IDEAS*).

¹⁵ For example, *HIGH TECHNOLOGY AND LOW INCOME COMMUNITIES: PROSPECTS FOR THE POSITIVE USE OF ADVANCED INFORMATION TECHNOLOGY* (edited with Bish Sanyal & William J. Mitchell, 1999); *TURGID HORGAN, DONALD A. SCHÖN, WILLIAM L. PORTER & MICHAEL JOROFF, EXCELLENCE BY DESIGN: TRANSFORMING WORKPLACE AND WORK PRACTICE* (1998); *FRAME REFLECTION: TOWARD THE RESOLUTION OF INTRACTABLE POLICY CONTROVERSIES* (with Martin Rein, 1994); *RETHINKING THE DEVELOPMENT EXPERIENCE: ESSAYS PROVOKED BY THE WORK OF ALBERT HIRSCHMAN* (edited with Martin Rein, 1994).

II. WHAT WERE SCHÖN'S KEY INSIGHTS?

Schön rarely wrote anything about law or lawyers. If he ever saw a law school class, there is no trace of it in his writing. The index to *Educating the Reflective Practitioner*, for example, contains only six references to legal education or lawyers — out of 343 pages of text. One of the references is flat-out wrong,¹⁶ and the other five are so obvious that they might be the products of casual chats with law faculty acquaintances.¹⁷ At the time he wrote his most oft-cited books, he seems not to have known about law school clinics.¹⁸ (Although Schön is also cited in the medical literature, a similar distance appears between him and medicine.¹⁹)

Schön's key insights are all observations about the professions *generally*. Here they are:

1. *Effective professionals tend to think in similar ways across professions.* Surgeons, architects, and tax lawyers may use different methods to achieve results, but in all fields, truly effective practitioners *think about* problems in remarkably similar ways. The professions thus can learn from each other.

2. *In all professions, the research emphasis on "technical rationality" distracts everyone from an examination of how professional problems are actually solved.* "Technical rationality" was Schön's term for "substantive" knowledge, the body of scientific or doctrinal knowledge on which a profession is supposedly based.²⁰ In medicine, that is what the medical school curriculum calls basic science. In law, it is the rules and policies studied in doctrinal courses.

Between two transactional lawyers negotiating a contract, the role of technical rationality is played by the law of contracts in general and by other rules of law that specifically govern the industry involved and the type of transaction. As far as much, if not most, of the legal academy is concerned, the lawyers' job is to apply those rules and come to an agreement, and rigorous scholarship has little more to add to the situation. But Schön would have said that most of the legal academy is wrong: the legal rules are only background and context

¹⁶ In a typical law school classroom, "there is presumed to be a right answer for every situation." *EDUCATING THE REFLECTIVE PRACTITIONER*, *supra* note 10, at 39.

¹⁷ *Id.* at 4, 8, 11, 14, 34.

¹⁸ In his talk at the 1992 AALS annual meeting, Schön assumed that aspiring lawyers achieve competency through post-graduate apprenticeships. See Schön, *supra* note 6, at 248.

¹⁹ "Schön has little direct experience with internal medicine training. Nonetheless, practicing internists . . . will quickly gain a sense of kinship with Schön, in part because of his unflagging preference for the real world of applied problem solving." Ende, *supra* note 5, at 183.

²⁰ *THE REFLECTIVE PRACTITIONER*, *supra* note 9, at 21-49.

surrounding what these two lawyers do. If we understand only some of what negotiating lawyers really do, it is because — even today after more than two decades of work by clinicians and others interested in the nondoctrinal aspects of lawyers' work — the scholarship of law faculties has been overinvested in what Schön would have considered technical rationality (the rules of law) and underinvested in what he would have considered practical reflection (the process through which professionals solve problems).

Effective lawyers do not practice law. They solve problems, using law as one among many professional tools. "Thinking like a lawyer" is not the same thing as "solving problems like a professional." "Thinking like a lawyer" is a label used by doctrinal teachers for a collection of textual interpretation skills and heightened forms of skepticism. Although these are certainly useful in professional life, they are only part of the mental processes needed to solve professional problems. (And in doctrinal teaching they are sometimes destructively combined with sneering and showing off.) Endeavors of construction, such as the creative processes of developing factual and legal theories, are treated in much of legal education as afterthoughts. In fact, so much energy has been devoted to textual interpretation and skepticism that we actually know very little about how effective lawyers go about solving problems.

One of the reasons why we know so little about problem solving is because, in nearly all professions, status and resources are over-allocated to those involved with technical rationality and under-allocated to those who deal with what professionals actually do in practice.²¹ For Schön, this was an inversion of the natural order of things because the delivery of high-quality work for the client is the reason why we have professions in the first place. Once research is divorced from that, it can go off into self-justifying and self-flattering agendas of its own, often involving research for the sake of research.²²

3. *Most of professional work starts in confusion, and the professional usually cannot develop certainty. At most, the professional can solve a problem, and even then things still might be confused because the professional might not be able to articulate how or why the problem got solved.* Schön focused on the "uncertainty, uniqueness, and conflict"²³ in the "indeterminate zones"²⁴ of professional work. A situa-

²¹ Schön, *supra* note 6, at 235.

²² Looking on the whale's "broad firmament of a forehead, . . . you plainly perceive [the] mark of genius. But how? Genius in the Sperm Whale? Has the Sperm Whale ever written a book, spoken a speech? No, his great genius is declared in his doing nothing particular to prove it." HERMAN MELVILLE, *MOBY-DICK*, ch. 79 (1851).

²³ EDUCATING THE REFLECTIVE PRACTITIONER, *supra* note 9, at xi.

²⁴ *Id.* at 12.

tion can be indeterminate because the facts are ambiguous or hard to ascertain, because the client is confused or ambivalent, or because the law is unclear. Or the situation can be indeterminate because it is unique:

[A]ll doctors will tell you that some percentage of the patients that come into the office are not in the book. By this they mean that the standard repertoire of diagnostic and treatment categories does not include this set of patients. Therefore, they need to invent and experiment on the spot, in these cases, in order to assimilate these patients to the categories they understand. (Doctors do vary about what this percentage is: I have never heard it lower than thirty percent or higher than eighty percent, but I have heard it put at eighty percent by someone whom I regard as a very good doctor.) In some fields, . . . the frequency of uniqueness is even greater. The psychiatrist Erik Erikson once said the patient is a universe of one, and very good architects say that each site is unique.²⁵

This is why technical rationality or "substantive" knowledge has severe limits. What do we do when the patient's symptoms are not in the book?

4. *To unravel "uncertainty, uniqueness, and conflict" in the "indeterminate zones," an effective professional reflects in action.* The professional has a "reflective conversation with the situation."²⁶ This is not a time-out for meditation. Instead, "the reflection . . . takes place in the midst of action, . . . and it need not employ the medium of words. . . . The term *conversation* is, in this usage, metaphorical. It does not refer to a literal conversation *about* the situation, but to an inquirer's conversation-like transaction with the materials at hand."²⁷ Part or all of it might be unconscious.

How do we converse with a situation? We experiment and see how the situation responds. We try action A, and the situation does nothing, from which we learn something (although we might not be conscious right away of what we have learned). We try action B; the situation does something unexpected; and we have learned something else. Perhaps now we start generating hypotheses, and to test one of them, we try action C, and the situation does something that is consistent with the hypothesis but does not confirm it. And so on.

Much reflection-in-action hinges on the experience of surprise. When intuitive, spontaneous performance yields nothing more than the results expected for it, then we tend not to think about it. But when intuitive performance leads to surprises, pleasing and promis-

²⁵ Schön, *supra* note 6, at 239. See Erik H. Erikson, *The Nature of Clinical Evidence*, in EVIDENCE AND INFERENCE 73 (Daniel Lerner ed., 1959).

²⁶ THE REFLECTIVE PRACTITIONER, *supra* note 9, at 268. See also *id.* at 49-69, 128-67.

²⁷ Schön, *supra* note 7, at 125 (emphasis in original).

ing or unwanted, we may respond by reflecting-in-action.²⁸

5. *We know only some of how this conversation with the situation can most effectively be conducted.* Part of our ignorance is caused by the professions' focus on technical rationality, which is easier to understand than the skill of practicing reflectively. We try to hide our ignorance with words of mystery. "So outstanding practitioners are not said to have more professional knowledge than others, but more 'wisdom,' 'talent,' 'intuition,' or 'artistry'" — all terms that "serve not to open up inquiry but to close it off."²⁹ And we thus "distance ourselves from the kinds of performance we need most to understand."³⁰

We can, however, learn more if we discipline ourselves to study reflection-in-action and treat it as an art, "not inherently mysterious" but instead "rigorous in its own terms."³¹

6. *All of this is made harder by the paradox that the process of reflecting-in-action can be explained only in terms understandable to a person who already knows something about how to do it.* Although effective professional thinking "is not inherently mysterious,"³² it is often based on a "knowing more than we can say" or a "tacit knowledge,"³³ — rather than on the rationalizations we enunciate to describe why we do things. "Tacit knowing or knowing-in-action has this property: we exhibit it by the competent behavior we carry out but we are unable to describe what it is that we do."³⁴

During World War II, Eric Newby, while serving in the British armed forces, was captured in Italy and then escaped. On the run, he was hidden for a while by Italian villagers, but this became too dangerous. The villagers decided to build a small hut for him in an isolated part of the countryside where he could live secretly. They had selected the best available site, and they and Newby set off to do the work. If they had been caught doing this, they probably would all have been shot. They found that the site was blocked by "a perfectly enormous rock." An old man was summoned.

His name was Bartolomeo. He went over [the rock] with his hands, very slowly, almost lovingly. It must have weighed half a ton. Then, when he had finished caressing it, he called for a sledgehammer and hit it deliberately but not particularly hard and it broke into two almost equal halves. It was like magic and I would not have been

²⁸ THE REFLECTIVE PRACTITIONER, *supra* note 9, at 56.

²⁹ EDUCATING THE REFLECTIVE PRACTITIONER, *supra* note 10, at 13.

³⁰ *Id.*

³¹ EDUCATING THE REFLECTIVE PRACTITIONER, *supra* note 10, at 13.

³² *Id.* at 13.

³³ THE REFLECTIVE PRACTITIONER, *supra* note 9, at 51-52. The term *tacit knowledge* comes from MICHAEL POLANYI, *THE TACIT DIMENSION* (1967).

³⁴ Schön, *supra* note 6, at 243.

surprised if a toad had emerged from it and turned into a beautiful princess who had been asleep for a million years. . . . There was no need to ask what this old man's profession had been. . . .

The rest was easy. He gave the two immense halves a few more light taps and they broke into moveable pieces. . . .³⁵

If asked, would this stonemason have been able to explain how to figure out where in the rock to hit? Probably not. It is "the kind of knowing that is exhibited by what we do"³⁶ and not by what we think we know.

This kind of knowledge is, after all, one of the characteristics of a profession. To a lay person, the knowledge seems magical, but to a professional it is part of the state of being, so ingrained that the professional cannot imagine life without it. This creates one of the classic frustrations of students who are trying to become professionals. For them, it produces what Schön calls the "paradox of . . . having to plunge into doing — without knowing, in essential ways, what one needs to learn"³⁷ in order to learn by doing.

That paradox for the most part does not exist in undergraduate education. But it does occur when students must learn completely new ways of thinking that cannot be memorized or even articulated. It is normal when, in an architecture school, "in spite of the students' general admiration for [their teacher] as practitioner and teacher, fully half the group find it hard to grasp what he means by 'thinking architecturally.'"³⁸ When Schön talked to students in a variety of professional schools, he found that

in the midst of their education for practice there was a profound sense of mystery. This feeling resulted from the fact that the students literally did not know what they were doing, and their teachers could not tell them — because what the teachers knew how to say the students could not at that point in their experience understand. The students had to have the experience of trying to do the thing before they would be ready to understand the kind of explanations that the teachers could give them about what they were doing.³⁹

But tacit knowledge is not necessarily accurate knowledge. Because it is tacit, it is also unexamined.⁴⁰ The tacit "knowledge" of an ineffective professional might be nothing more than superstition — and correspondingly dangerous to clients. And the typical lay person,

³⁵ ERIC NEWBY, *WHEN THE SNOW COMES, THEY WILL TAKE YOU AWAY* 189 (1984).

³⁶ Schön, *supra* note 6, at 242.

³⁷ EDUCATING THE REFLECTIVE PRACTITIONER, *supra* note 10, at 166.

³⁸ *Id.* at 80.

³⁹ Schön, *supra* note 6, at 249.

⁴⁰ Webb, *supra* note 3, at 195.

who cannot tell the difference between superstition and true tacit knowledge, usually does not realize how dangerous that professional can be.

7. *What professionals think they do and what they actually do are often entirely different.* Argyris and Schön differentiated between what they called “theories of action” and “theories-in-use”:

When someone is asked how he would behave under certain circumstances, the answer he usually gives is his espoused theory of action for that situation. This is the theory of action to which he gives allegiance, and which, upon request, he communicates to others. However, the theory that actually governs his actions is his theory-in-use, which may or may not be compatible with his espoused theory; [and he] may or may not be aware of the incompatibility between the two theories.⁴¹

(“Theory of action” is a confusing term, and it might have been better if Argyris and Schön had used something like “professed theory” or “subscribed-to theory” that would more clearly differentiate from “theory-in-use.”) Although a professional might be willing to articulate a theory of action, we can learn the professional’s theory-in-use only “from observations of his behavior.”⁴²

The discrepancy between theory of action and theory-in-use makes it harder to improve how professionals work. We resist changing what we are really doing (our theory-in-use) because we mistakenly believe that we are doing something else (our theory of action). Because our theory of action seems satisfactory to us, we do not see any reason to change. Moreover, even if we can be persuaded to change, we might be satisfied by a modification of our professed theory of action, even though we continue what we were doing before because our theory-in-use remains unexamined and controls our actions.⁴³

8. *Highly developed rationality and a commitment to goals and winning greatly diminish reflectiveness.* Argyris and Schön developed the dichotomy that clinicians have come to know as persuasion mode vs. learning or inquiring mode.

Argyris and Schön argued that the highly rational and goal- and winning-oriented personality (which they called Model I⁴⁴) is less effective than a personality that develops the largest amount of valid and relevant information and generates the largest number of options from which to choose (which Argyris and Schön called Model II⁴⁵).

⁴¹ THEORY IN PRACTICE, *supra* note 8, at 6-7.

⁴² *Id.* at 7.

⁴³ Webb, *supra* note 3, at 197.

⁴⁴ THEORY IN PRACTICE, *supra* note 8, at 63-84.

⁴⁵ *Id.* at 85-95.

Applying these concepts to lawyering and especially to law school clinics, Robert Condlin retitled Model I as persuasion mode and Model II as learning mode.⁴⁶

In adapting Model I to a legal context, Condlin redeveloped the concept with greater clarity and precision — at least for lawyering — than Argyris and Schön had done. In Condlin's formulation, a person in persuasion mode tends to act on hidden agendas and strategies; "to minimize self-analysis and to reserve it for private moments when it will not weaken instrumental effectiveness";⁴⁷ and to argue in ways that are subtle but "needlessly stylized and hyperbolic."⁴⁸ Persuasion-mode behavior is profitable in situations where the struggle is for control rather than insight, and where the "self-sealing properties of persuasion-mode habits"⁴⁹ minimize tentativeness and perplexity. "Persuasion-mode habits predispose lawyers to take evaluative stands automatically" so that they "make statements that, on reflection, they know to be false."⁵⁰ "It causes one to impute rather than explore others' ends, shut off rather than encourage legitimate objection, . . . and accumulate rather than share decision-making authority."⁵¹ But "the persuasion mode is not always associated with bad, unpleasant, aggressive behavior. [It] is just as often a low-visibility, indirect, and even cordial method of manipulating others. . . . [T]he true test of persuasion-mode behavior is in what it seeks to accomplish (e.g., victory rather than understanding or uncoerced agreement) and by what strategies (e.g., private, unilateral, competitive, and self-sealing actions rather than public, bilateral, cooperative, and self-reflective ones)."⁵²

Condlin's description of learning mode is, however, less rich than Argyris and Schön's description of Model II. And because "learning" can imply a limitation to that which students do, the term "inquiring mode" might be a more generally descriptive name for the idea. A person in inquiring mode has an open-ended curiosity and an interest in exploring things regardless of the consequences. A person in inquiring mode is not trying to accomplish anything except learn — and that is a prerequisite to reflectiveness.

Although persuasion mode often helps us as lawyers persuade

⁴⁶ Condlin, *supra* note 2, at 231-24. See also Robert J. Condlin, *The Moral Failure of Clinical Legal Education in THE GOOD LAWYER: LAWYERS' ROLES AND LAWYERS' ETHICS* 318 (David Luban ed., 1983).

⁴⁷ CONDLIN, *supra* note 46, at 330.

⁴⁸ *Id.* at 326.

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ *Id.* at 329.

⁵² *Id.* at 328.

third parties to do what our clients want, I think that lawyers in general greatly overestimate its value. In a surprisingly large number of non-theatrical situations (in other words, outside the courthouse), a lawyer who functions in inquiring mode at least as to some of the issues on the table can have much more credibility than a lawyer who addresses everything in persuasion mode. Certainly, to be effective, a lawyer must be able to function in persuasion mode. But it may be more important to be able to function well in both modes — and to know when and where each mode is appropriate.

Argyris and Schön developed a seminar designed to persuade mid-career Model I personalities to become more effective by adopting Model II.⁵³ Among other things, the seminar tries to help each participant discover her or his own individual theory-in-use and how it differs from the participant's theory of action.⁵⁴ With that self-knowledge, the participant is offered "free choice to move toward Model II based on valid information about the effectiveness of one's behavior."⁵⁵ Argyris and Schön described at length a typical seminar, concluding:

The class began to realize how hard it was for them to accept that a key factor in their ineffectiveness was each individual's adherence to a Model-I theory-in-use. They struggled valiantly to blame their ineffectiveness on external phenomena, only to find that they were partly responsible for causing the external phenomena.⁵⁶

9. *Reflective practitioners probably have better collaborative relationships with their clients.* Apparently unaware of Rosenthal's pioneering study,⁵⁷ Schön differentiated between the self-styled expert and the reflective practitioner.⁵⁸ He also differentiated between the traditional contract with the client and a reflective contract (not in the sense of a legally binding agreement but instead as a mutual understanding about how the relationship between professional and client would proceed).⁵⁹

Schön's conclusions parallel Rosenthal's, except that Schön adds

⁵³ THEORY IN PRACTICE, *supra* note 8, at 96-130.

⁵⁴ *Id.* at 97.

⁵⁵ *Id.*

⁵⁶ *Id.* at 118.

⁵⁷ DOUGLAS E. ROSENTHAL, *LAWYER AND CLIENT: WHO'S IN CHARGE?* (1974). Studying selected personal injury cases, Rosenthal categorized the plaintiff's attorney-client relationship in each case as either traditionally hierarchical (the lawyer as an authority figure) or participatory (lawyer and client working together to solve problems). He then compared the results obtained for the plaintiff in each case with an independent appraisal of what the claim was worth. On average, participatory relationships were associated with better results, although the gap was not huge.

⁵⁸ THE REFLECTIVE PRACTITIONER, *supra* note 9, at 300.

⁵⁹ *Id.* at 302.

the thought that a more reflective practitioner is better able to collaborate with clients. For example, the "expert" will want "deference and status in the client's response to [the] professional persona," while the reflective practitioner will prefer a "sense of freedom and of real connection to the client, as a consequence of no longer needing to maintain a professional facade."⁶⁰ And a client entering into a traditional contract assumes "I put myself into the professional's hands and, in doing this, I gain a sense of security based on faith," while a client entering into a reflective contract assumes "I join with the professional in making sense of my case, and in doing this I gain a sense of increased involvement and action."⁶¹ (Schön offered other distinctions as well.⁶²)

10. *In ALL the professions, education is failing.* "What aspiring professionals need most to learn, professional schools seem least able to teach. And the schools' version of the dilemma is rooted, like the practitioners', in" technical rationality, which is "institutionally embedded in the curriculum and arrangements for research and practice."⁶³ Professional schools "have assumed that academic research yields useful professional knowledge and that the professional knowledge taught in the schools prepares students for the demands of real-world practice. Both assumptions are coming increasingly into question."⁶⁴

This is true even in schools as heavily clinical as those in medicine. In the typical four-year medical school curriculum, virtually the entire third year and a large portion of the fourth year are given over to what medicine calls clinical clerkships.⁶⁵ And "most physicians would agree . . . that the third year, the year on the wards, is the critical year in medical education."⁶⁶

Studies have shown that there is little diagnostic consistency in the medical profession: exposed to the same data, physicians often reach wildly different conclusions.⁶⁷ That may be because the process

⁶⁰ *Id.* at 300.

⁶¹ *Id.* at 302.

⁶² *Id.* at 290-307.

⁶³ EDUCATING THE REFLECTIVE PRACTITIONER, *supra* note 10, at 8.

⁶⁴ *Id.* at 9-10.

⁶⁵ See ASS'N OF AM. MED. COLLEGES, CURRICULUM DIRECTORY (1998-99).

⁶⁶ PHILIP REILLY, TO DO NO HARM: A JOURNEY THROUGH MEDICAL SCHOOL 104 (1987).

⁶⁷ See J. EDWARD RUSSO & PAUL J.H. SCHOEMAKER, DECISION TRAPS 121-22 (1989). A good example is at RICHARD P. FEYNMAN, WHAT DO YOU CARE WHAT OTHER PEOPLE THINK? 34-40 (1988). Medicine is not even a universal body of scientific knowledge. It differs from country to country. "Often, all one must do to acquire a disease is to enter a country where the disease is recognized — leaving the country will either cure the malady or turn it into something else. . . . One World Health Organization study found that doctors from different countries diagnosed different causes of death even when shown identi-

of diagnosis is undertaught in medical school, despite medical education's investment in clinical teaching. Medical students learn a list of correlated symptoms for each disease. When examining how a misdiagnosis might have been arrived at, medical school teachers and students seem to focus on a piece of medical information that the misdiagnoser forgot or did not know ("X symptom sometimes falsely suggests Y disease, and you have to run a different test before you exclude Z disease"). The thinking described is so situation-specific that apparently the inner logic of diagnosis is learned only through memorization of huge varieties of symptom/disease connections.

One gets the feeling that diagnosis is taught as the total of all known symptom/disease connections (information), rather than as a process or a kind of thinking. If that is true, it would mean that perceptive medical students figure out the thought process for themselves, while unperceptive ones know only information. (Similar things happen in law schools.) And, assuming that a discipline teaches what it knows, it would suggest that medicine does not really understand diagnosis, the core of its own problem-solving techniques.

If medical students learn a way of *thinking about* symptoms that most quickly produces an accurate diagnosis, it is only through self-instruction or chance observation of and discussion with skilled diagnosticians. There seem to be few, if any, courses in diagnostic thinking per se — just as in law schools there are very few courses in theory development or in lawyerly problem solving.

Those who do research are mystified by the *processes* of diagnostic thinking, theory development, and problem-solving. It is easier to write articles that revise the lists of symptoms or propose new common law causes of action. So research and the curriculum avoid many of the most important skills that practitioners need to master. And "research not only is separate from professional practice but has been increasingly captured by its own agenda."⁶⁸ All of this led Schön to conclude that "universities are not devoted to the production and knowledge of fundamental knowledge in general. They are [instead] committed . . . to . . . a view of knowledge that fosters selective inattention to practical competence."⁶⁹

In comparison, architecture might do better than either law or medicine, perhaps because its technical and artistic elements are more

cal information from the same death certificates." LYNN PAYER, *MEDICINE AND CULTURE: VARIETIES OF TREATMENT IN THE UNITED STATES, ENGLAND, WEST GERMANY, AND FRANCE* 25 (1988). There appears to be little diagnostic consistency in psychology as well. See RUSSO & SCHOEMAKER, *supra*, at 175-76.

⁶⁸ EDUCATING THE REFLECTIVE PRACTITIONER, *supra* note 10, at 10.

⁶⁹ THE REFLECTIVE PRACTITIONER, *supra* note 9, at vii.

distinctly separate and can be taught that way. It certainly is the place where Schön found his best examples of professional problem solving and education.

11. *Professional thinking can really be taught only through what Schön called "deviant traditions of education for practice — traditions that stand outside or alongside the normative curricula."*⁷⁰ Those who teach the normative curricula — in law schools, the doctrinal courses — greatly overestimate the amount of professional thinking their students can learn in those conventional settings.

For the most part, the normative curriculum teaches only information. Many normative curriculum teachers might try to convey more than information but succeed only haphazardly. Some might sense how little they are succeeding and for their failure blame their students or undergraduate education or society. Very few realize that the most important cause of failure is the normative curriculum itself.

Inside the professional schools, the deviant traditions of instruction survive because they succeed to one degree or another in teaching professional thinking. It has been said more than once that "a physician learns best from patients, not books."⁷¹

In medical schools and schools modelled at least in part on medicine, one often finds a dual curriculum. When interns and residents under the guidance of senior clinicians work with real patients on the wards, they learn more than application of medical science taught in the classroom. There is at least an implicit recognition that research-based models of diagnosis and treatment cannot be made to work until the students acquire an art that falls outside the models; and on this view, widely held by practicing physicians, the medical practicum is as much concerned with acquiring a quasi-autonomous art of clinical practice as with learning to apply research-based theory.⁷²

In the professional schools, the deviant traditions are inhibited from full effectiveness by their inferior status. In law in particular, they are under-resourced and are treated as non-core. But outside the professions — in the arts and in athletics — the same traditions and teaching methods are more fully developed because there they are dominant rather than deviant.⁷³

12. *Professional thinking is best learned in a "reflective practi-*

⁷⁰ EDUCATING THE REFLECTIVE PRACTITIONER, *supra* note 10, at 15. The term "normative professional curriculum" originated in EDGAR SCHEIN, PROFESSIONAL EDUCATION (1973).

⁷¹ REILLY, *supra* note 66, at 86. See *id.* at 180 (describing the "one patient who made me a physician").

⁷² EDUCATING THE REFLECTIVE PRACTITIONER, *supra* note 10, at 16.

⁷³ *Id.*

cum,” where students learn by doing while interacting with teachers who view themselves as coaches. This is where the deviant pedagogical traditions flourish. “Teachers should coach, not prescribe; learners should participate, not look on; and instruction should occur in the field, not the classroom.”⁷⁴

A good “practicum is reflective in two senses: it [helps] students become proficient in a kind of reflection-in-action; and . . . it involves a dialogue of coach and student that takes the form of reciprocal reflection-in-action.”⁷⁵ In describing reflective practica, Schön uses the terms *teacher* and *coach* interchangeably. In fact, he prefers *coach*. “The student cannot be *taught* what he needs to know, but he can be *coached*.”⁷⁶

In architecture, that happens in a design studio; in psychotherapy, through supervision; and in medicine, through clinical rotations and later internships. But Schön found the same styles of teaching in conservatories of music, elsewhere in the arts, and in athletics.

13. *Effective methods of practicum teaching can be identified and catalogued.* Although there probably are more, Schön did identify three styles of coaching, all of which are familiar parts of our repertoire as skills teachers. Schön called them joint experimentation, Follow me!, and hall of mirrors.⁷⁷ “In the dialogue of coach and student, each of these approaches calls for a different sort of interpretation, presents different orders of difficulty, and lends itself to different contextual conditions.”⁷⁸ “A coach may shift from one to another, . . . adapting herself to the needs and difficulties of each student before her,” or they “may be combined.”⁷⁹

In joint experimentation, the teacher and student together explore ways of accomplishing the student’s goals:

Paradoxically, the more [the teacher] knows about the problem, the harder it is for him to do this. He must resist the temptation to tell a student how to solve the problem . . . , but he must not pretend to know less than he does [because deception] risks undermining [the student’s] commitment to their collaborative venture. One way of resolving this dilemma is for the coach to put his superior knowledge to work by generating a variety of solutions to the problem, leaving the student free to choose and produce new possibilities for

⁷⁴ Ende, *supra* note 5, at 184.

⁷⁵ EDUCATING THE REFLECTIVE PRACTITIONER, *supra* note 10, at xii.

⁷⁶ *Id.* at 17 (emphasis in original).

⁷⁷ *Id.* at 295.

⁷⁸ *Id.*

⁷⁹ *Id.* at 297-98. A very good example of these modes at work is the story of Dani and Michal, *id.* at 142-54.

action.⁸⁰

For example, in a legal writing course or in an appellate advocacy clinic, a student comes into the teacher's office for a critique. The teacher has identified some aspect of writing that the student does with persistent ineffectiveness. The student has brought a copy of the draft on disk. The teacher puts the first example of this problem up on the computer screen and takes the lead in brainstorming how to solve it, laying out a series of options and asking the student to choose among them. Once the student has chosen, the teacher takes the lead again in implementing the option. If the option implements poorly, student and teacher go back to the list of options, and the student chooses again. After the first example of the problem is solved, the teacher identifies the second example but this time turns over the lead to the student, interjecting only now and then while the student generates a list of options, chooses, and implements. After the second example is solved, the teacher asks the student to identify the third example. The initiative gradually shifts to the student, but the teacher has modelled a reflective conversation with the problem. (If this kind of interchange were to be introduced to students in the first year writing course, and if the teachers there were to explain to students what they are doing and why, a lasting tone and process for the later skills courses could be established in students' minds.)

In Follow me!, the teacher "improvise[s] a whole designlike performance and, within it, . . . execute[s small] units of reflection-in-action."⁸¹ This is a demonstration of something to be emulated. But unlike the demonstrations in a NITA course, it illustrates, through thinking out loud, the inner reflection that goes into creativity.

Hall of mirrors includes, among other things, what we would recognize as post-performance critique of a student's work. When it works well, teacher and student

continually shift perspective[, seeing] their interaction at one moment as a reenactment of some aspect of the student's practice; at another as a dialogue about it; and at still another, as a modelling of its redesign. . . . In this process, there is a premium on the coach's ability to surface his own confusions. To the extent he can do so

⁸⁰ *Id.* at 296. Goethe thought that naivete is a tremendous asset in creativity. Jacob W. GETZELS & MIHALY CSIKSZENTMIHALYI, *THE CREATIVE VISION: A LONGITUDINAL STUDY OF PROBLEM FINDING IN ART* 44 (1976). "Only naive persons risk questioning phenomena everyone else takes for granted Nor is the need for this kind of naivete confined to creativity in the arts. Einstein, for example, implied the same function of naivete in science" *Id.* The prevailing ethos in law practice cripples creative naivete, however. Lawyers feel compelled to project the appearance of competence, and they censor naivete in themselves and censure it in other lawyers.

⁸¹ *Id.*

authentically, he models for his student a new way of seeing error and “failure” as opportunities for learning.⁸²

14. *In their core ways of thinking, practitioners of the arts are not different from practitioners of the professions.* Not only can the professions learn from each other, but they can also learn from the arts.

The artistry of painters, sculptors, musicians, dancers, and designers bears a strong family resemblance to the artistry of extraordinary lawyers, physicians, managers, and teachers. It is no accident that professionals often refer to an “art” of teaching or management and use the term *artist* to refer to practitioners unusually adept at handling situations of uncertainty, uniqueness, and conflict.⁸³

But the arts seem to know more than the professions about how to educate reflective practitioners, and many of the best teaching examples in *Educating the Reflective Practitioner* come from the arts. There, “[e]verything is practicum,”⁸⁴ perhaps because the arts care little for technical rationality. They care primarily about causing an artistic effect. As a result, the arts are not as respectable in academia as the professions are. Schön believed that the situation of architecture is particularly revealing.

Schools of architecture are interesting because they occupy a middle ground between professional and art schools. Architecture is an established profession charged with important social functions, but it is also a fine art; and the arts tend to sit uneasily in the contemporary research university. Although some schools of architecture are free-standing institutions, most exist within a university, where they tend to be marginal, isolated, and of dubious status — the more prestigious the university, the more dubious the status. In their curricula, some applied sciences may be taught, although the status of such sciences is often ambiguous and controversial. For the most part, however, these schools preserve a studio tradition centered on the art of designing.⁸⁵

In other words, although nearly every law school clinic is treated as no more than an appendage to the curriculum, an architecture school is built around its clinic, called a design studio. Schön was “convinced that architectural designing is a prototype of the kind of artistry that other professionals need most to acquire; and the design studio, with its characteristic pattern of learning by doing and coaching, exemplifies the predicaments inherent in any reflective practicum and the conditions and processes essential to its success.”⁸⁶

⁸² *Id.* at 297.

⁸³ *Id.* at 16.

⁸⁴ *Id.*

⁸⁵ *Id.* at 18.

⁸⁶ *Id.*

III. WHERE MIGHT WE GO NEXT?

Schön only started us down a path. Here are some things we might do to continue:

1. *Use Schön's insights to help students work through the confusion and frustration of learning to become professionals.* All skills courses, beginning with legal writing in the first year, can be infused with teaching that would show students how to have reflective conversations with professional dilemmas. In later courses, students can be asked to write journals in a way that encourages reflection.⁸⁷ And a good summary of Schön's work might explain to students why we cannot explain what they need to understand, how professional education fails, and — most importantly — what students can do to learn anyway.

2. *Complete Schön's work on reflective practica and make it more directly relevant for legal education.* Schön's study of reflective practica was preliminary and incomplete. (It is not clear whether he realized this.) This is not a criticism. The ideas involved are profound. Schön might have been helped in reaching them because, as a nonprofessional, he was not bogged down in the minutiae of any field and could see a broad overview of what the professions generally are doing. That is an advantage in making the initial breakthrough, but it can become a disadvantage in following up and building in detail a new body of thought.

The job will have to be completed by the professionals themselves. Because Schön knew and wrote little about legal education, many insights directly valuable to law school clinical and skills teachers might be produced if some of us were, as individuals, to observe education in other professions and to write about the experience. Lawyer-teachers writing for an audience of lawyer-teachers might be able to report methods of non-law teaching that could enrich legal education.

3. *Subject our theories of action and theories-in-use to empirical testing.* We are confident that on cross-examination we should never ask a question to which we do not already know the answer. We are also confident that in negotiation, we should not make the first offer and should instead get the other side to do so, giving us an opportunity to learn the other side's expectations. Most of the trial practice and negotiation textbooks say so, and both of these principles make intuitive sense — except that we have no empirical evidence that either of them is true, even though both are empirically testable.

In the 1950's and 1960's, a certain Swiss village had two physi-

⁸⁷ See Ogilvy, *supra* note 1.

cians, whom later researchers called A and B.⁸⁸ They had separate practices. Doctor A happened to notice that among his patients living near the village's main road, an unexpected number reported headaches, fatigue, stomach and intestinal complaints, and depression. Doctor A apparently noticed a pattern — proximity to the road — and was aware that gasoline at that time contained lead. In 1961, Doctor A began testing these patients for lead and treating them with calcium EDTA, which purges lead from the body.⁸⁹ Doctor B apparently saw similar complaints from his patients but treated them according to standard medical practice — which at that time completely ignored the possibility of lead poisoning.

None of the participants realized at the time that a spontaneous experiment was occurring. Because the medical records were kept meticulously, later researchers could measure the effect of what these two doctors did. Of the 59 patients who were treated with calcium EDTA, one (1.7%) had died of cancer by 1976. Of the 172 patients who also lived adjacent to the main road but did not receive calcium EDTA treatments, 30 (17.4%) had died of cancer by 1976.⁹⁰

⁸⁸ W. Blumer & Th. Reich, *Leaded Gasoline — A Cause of Cancer*, 3 ENV. INT'L 465 (1980).

⁸⁹ Evidence that the lead added to gasoline is carcinogenic did not come out in the Swiss medical literature until 1968. *Id.* at 465, 470. In this century, the two most common sources of lead poisoning have been paint and gasoline. In the 1920's, it was so widely known in the United States that sanded lead paint could cause lead poisoning that the Minnesota Mining and Manufacturing Co. (now 3M) developed a line of waterproof sandpaper that would allow wet sanding to reduce lead dust in auto body shops. Henry Petroski, *The Evolution of Useful Things* 80-81 (1994). In the 1930's, 49 childhood deaths were recorded from lead poisoning in Baltimore alone. Richard Rabin, *Warnings Unheeded: A History of Child Lead Poisoning*, 79 AM. J. PUB. HEALTH 1668, 1669 (1989). "A child lives in a lead world," wrote a researcher in the Journal of the American Medical Association in 1924. *Id.* Canada and several European countries outlawed lead paint for residential use early in the twentieth century. *Id.*; Clifford L. Rechtschaffen, *The Lead Poisoning Challenge: An Approach for California and Other States*, 21 HARV. ENVTL. L. REV. 387, 390 (1997); Michael W. Shannon, *Etiology of Childhood Lead Poisoning*, in LEAD POISONING IN CHILDHOOD 37, 45 (Siegfried M. Pueschel, James G. Linakis & Angela C. Anderson eds., 1996). But because of a campaign of disinformation conducted by lead manufacturers, the United States did not ban residential lead paint until 1978. Barbara Berney, *Round and Round It Goes: The Epidemiology of Childhood Lead Poisoning, 1950-1990*, 71 MILBANK Q. 1:3 (1993); Rabin, *supra*, at 1671-72. Using the same theories and some of the same law firms that prevailed in litigation against tobacco companies, individual Maryland plaintiffs and the state of Rhode Island have sued eight paint manufacturers and their trade association. Richard A. Oppel, Jr., *Rhode Island Sues Makers of Lead Paint*, N.Y. TIMES, Oct. 14, 1999, at A18. On the other hand, although leaded gas was banned in the United States in the 1970's, it is still legally sold in some parts of Europe. Unleaded gas was not introduced into Switzerland until 1984. *Immer mehr bleifreies Benzin*, TAGES-ANZEIGER, July 19, 1997, at 25. (I am grateful to Mareke Aden for researching the last point and translating the last source.)

⁹⁰ Blumer & Reich, *supra* note 88, at 466. Physician B's patients did not include a disproportionate number of smokers; nor were they in their homes more frequently than

Doctor A ignored the standard medical method of solving problems and probably saved some lives. But to contemporaries, Doctor B would have looked like the responsible physician, and Doctor A would have seemed strange, eccentric, even irresponsible. Only later lab experiments and epidemiological studies — the medical versions of empiricism — proved that the strange physician was right all along and the responsible physician was in fact not solving problems.

A persistent problem in medicine is that “most doctors grow comfortable with a set of basic strategies at the beginning of their careers and then use them over and over”; even though research “continuously validate[s] new drugs, tests, and operations, . . . practicing doctors tend to lag behind, favoring known options instead.”⁹¹ Critics of this tendency have developed “evidence-based medicine,” which “trains doctors to search medical journals and data bases,” rather than relying on “habit and casual intuition.”⁹² The goal is to restructure decision-making so that the physician who has in the past said, “I always use this drug for my patients with your condition” will instead say “People with your condition are more likely to do well with this drug than with the alternative.”⁹³ When a physician’s diagnosis and treatment are based on habit rather than evidence, a successful outcome may be more a matter of luck than anything resembling a reflective conversation with the situation.⁹⁴ Databases specially designed for evidence-based medicine make it possible for physicians “to find answers to almost 80 percent of their questions in an average of less than 30 seconds per question.”⁹⁵ But do not expect to find your family physician using these databases any time soon: it takes a very long time to change an entire profession’s way of doing things.

Some of the most widely accepted concepts in law are folklore masquerading as immutable principles. For example, the law allows fact-finders to place enormous faith in eyewitnesses even though empirical research shows that eyewitnesses have very little value in determining facts. In recent years, DNA tests have been able to tell with absolute certainty from whom something like a hair or a spot of blood came. A surprising number of criminal convictions that occurred before DNA tests were developed have been vacated after DNA testing established that the defendant could not possibly have committed

Physician A’s patients. *Id.*

⁹¹ Abigail Zuger, *New Way of Doctoring: By the Book*, N.Y. TIMES, Dec. 16, 1997, at F1. See also MICHAEL A. MILLENSON, DEMANDING MEDICAL EXCELLENCE: DOCTORS AND ACCOUNTABILITY IN THE INFORMATION AGE (1999)

⁹² Zuger, *supra* note 91, at F1, F7.

⁹³ *Id.* at F7.

⁹⁴ See text at notes 26-28, *supra*.

⁹⁵ Zuger, *supra* note 91, at F7.

the crime. The U.S. Department of Justice has studied 28 of these cases⁹⁶ — 23 of which had resulted from identifications by eyewitnesses. In one of them, five eyewitnesses had identified a defendant who had been wrongly convicted and was awaiting execution under a sentence of death.

The same phenomenon is illuminated through experiments by social scientists. A typical experiment involves staging a crime; testing whether eyewitnesses are able to identify the “criminal” (who, of course, is known to the researchers); and finally asking jurors in simulated trials to assess the credibility of the eyewitnesses’ identifications. In one such experiment, jurors “were just as likely to believe a witness who had made an incorrect identification as one who had made a correct identification.”⁹⁷

The law is equally convinced that appellate courts should defer to the fact-finding in trial courts because trial judges and juries are able to observe the demeanor of witnesses and are thus in a better position to measure credibility. Appellate courts say over and over again that their review must be limited because they have only a cold record (a transcript) to work from. But virtually all of the empirical research addressed to this question shows that observing witnesses is a handicap in gauging credibility because of the tendency of fact-finders to rely on myths about body language and other indicia of trustworthiness.⁹⁸ The same research shows that limiting oneself to a cold record is an advantage because it compels a fact-finder to focus on the logical consistencies and inconsistencies of what the witnesses say.⁹⁹ In other words, appellate courts are in fact in a better position to measure credibility than trial judges and juries are.

Is it really true that one tempts disaster by asking a question on cross-examination to which one does not already know the answer? And does a negotiator really get better results by refusing to make the first offer? The intuitive answer is yes, but we also intuitively believe that eyewitnesses are reliable and that appellate courts are bad judges of credibility. We will not know about cross-examination and negotiation — and about a very large number of other things we practice and teach — until we have tested them empirically. Until we do, we are

⁹⁶ See ELIZABETH F. LOFTUS & JAMES M. DOYLE, *EYEWITNESS TESTIMONY: CIVIL AND CRIMINAL* 1 (3d ed. 1997). The Department of Justice’s study has been published as *CONVICTED BY JURIES, EXONERATED BY SCIENCE: CASE STUDIES IN THE USE OF DNA EVIDENCE TO ESTABLISH INNOCENCE AFTER TRIAL* (1996). See also MONROE H. FREEDMAN, *UNDERSTANDING LAWYERS’ ETHICS* 152-55 (1990).

⁹⁷ LOFTUS & DOYLE, *supra* note 96, at 2-3.

⁹⁸ The research is collected at Olin Guy Wellborn III, *Demeanor*, 76 CORNELL L. REV. 1075 (1991).

⁹⁹ *Id.*

like Doctor B and other physicians who practice out of "habit and casual intuition" rather than on the basis of ideas that have withstood scientific scrutiny.

As clinicians, are we capable of testing our assumptions empirically? I think the answer is yes. Many of us have some social science background, at least a foundation sufficient to provide a sense of what is sound methodology and what is not. And elsewhere in our universities may be social scientists open to or even eager for collaboration in research. Moreover, the answer *must* be yes: we should not be teaching ideas that we are not interested in testing for validity.

4. *Correlate Schön's work with other, already existing research in the social sciences.* Schön is not the only person who has studied effectiveness in work. At least one other researcher has approached the same problem but from a different perspective. Studying surgeons, artists, and mountain climbers, among others, Mihaly Csikszentmihalyi has reported on the relationship between effectiveness and a state of "focused concentration" so enjoyable that the mind becomes completely absorbed in the task at hand as otherwise dammed up solutions "flow" without obstruction into consciousness.¹⁰⁰ A number of other researchers have followed this line of inquiry,¹⁰¹ which has acquired the generic name of flow research.

Creative flow can be enhanced or obstructed. We tend to experience flow only when we understand the ultimate goals involved, when the task is challenging but not beyond our skills or capacity to grow, and when we believe that the situation will respond to the quality of our actions.¹⁰² Tedium or anxiety will interfere with flow. "Surgeons who repeatedly perform the same operations, such as appendectomies, quickly become bored with their work. Academic surgeons who do state-of-the-art operations report experiencing flow as intense as any artist"¹⁰³ A person who is motivated primarily to satisfy other people will not experience flow frequently, and flow cannot be enhanced through positive or negative reinforcement.¹⁰⁴ The opposite is "antiflow": activity that is "meaningless, tedious [and] offers little challenge; is not intrinsically motivating; and creates a sense of lack of

¹⁰⁰ See MIHALY CSIKSZENTMIHALYI, *FLOW* (1990); MIHALY CSIKSZENTMIHALYI, *BEYOND BOREDOM AND ANXIETY* (1975).

¹⁰¹ See the essays in *OPTIMAL EXPERIENCE: PSYCHOLOGICAL STUDIES OF FLOW IN CONSCIOUSNESS* (Mihaly Csikszentmihalyi & Isabella Selega Csikszentmihalyi, eds. 1988).

¹⁰² Mihaly Csikszentmihalyi, *The Flow Experience and Its Significance for Human Psychology*, in *OPTIMAL EXPERIENCE*, *supra* note 101, at 15, 29-35.

¹⁰³ *Id.* at 31.

¹⁰⁴ Mihaly Csikszentmihalyi, *The Future of Flow*, in *OPTIMAL EXPERIENCE*, *supra* note 101, at 364, 374.

control.”¹⁰⁵ “[T]he most urgent applications of the flow model [are] in schools and on the job, where most people spend most of their lives — often in boredom or in states of uneasy anxiety.”¹⁰⁶

Csikszentmihalyi is rarely cited together with Schön, and neither cites to the other. Nobody has synthesized their work into a single, unified view of professional effectiveness. And there may be other researchers in the social sciences whose work can add still further.

5. *Follow through with the arts.* It is no accident that both Schön and Csikszentmihalyi found much of their best material in the arts (and in athletics). Of all Schön’s insights, however, the one that might trouble some of us the most is the idea that the professions and the arts are on a single continuum. Professionals usually do not feel that they have much in common with novelists, painters, and musicians.

There are, however, strong parallels between clinical teaching and the teaching that goes on in the arts. For example, some of the very best insights on the process of critiquing a student’s work can be found in a book by the novelist John Gardner on how to develop the craft of writing fiction.¹⁰⁷ For example:

[W]hat teachers need to teach students is not how to fix a particular story but how to figure out what is wrong with the story and how to think about alternative ways of fixing it. . . . I’ve frequently worked with writing assistants — young writers with successful first novels — whose inexperience as teachers led them to focus on finding the best solution to problems in the writing placed in their care, led them, in other words, to show the student writer what to do to make his fiction work. In case after case, when I myself looked at the student’s work later, I felt there were a number of possible solutions to the problems . . . and that in suggesting only one solution, the one he himself would choose, my assistant had done an unwitting disservice to the student. What the beginner needs to learn is how to think like a novelist. What he does not need is a teacher who imposes his own solution, like an algebra teacher who tells you the answer without showing you how he got there, because it is *process* that the young writer must learn¹⁰⁸

Many of Schön’s most revealing examples of teaching came from settings where aesthetics were an important issue, either in the architectural design studio or in the pure arts themselves.

The arts have other things to offer as well, such as a particular

¹⁰⁵ Maria T. Allison & Margaret Carlisle Duncan, *Women, Work, and Flow*, in OPTIMAL EXPERIENCE, *supra* note 101, at 118, 120.

¹⁰⁶ Mihaly Csikszentmihalyi, *Introduction*, in OPTIMAL EXPERIENCE, *supra* note 101, at 3, 12. See also BEYOND BOREDOM AND ANXIETY, *supra* note 100.

¹⁰⁷ JOHN GARDNER, ON BECOMING A NOVELIST (1983).

¹⁰⁸ *Id.* at 87-88.

view of elites. For example, the experience of the arts has been that elites nearly always lag behind the creative curve — so much so that the concept of an elite can seem counterfeit.¹⁰⁹ Rodin was three times denied admission to the Ecole des Beaux-Arts. Today nobody remembers the sculptors who thought him inadequate, although at the time they held themselves out as the finest in their field. This is a common story in the arts, and one worth remembering at times when skills teachers and skills teaching are disdained on an elitist basis.

6. *Document in convincing detail the ways in which legal education is far behind all the other professions in providing reflective practica.* Thirty to forty per cent of medical school is spent in clinical clerkships.¹¹⁰ The medical accreditation standards require that *every* student must be given clinical training “in both ambulatory and hospital settings [covering] all organ systems [and] the important aspects of acute, chronic, continuing, preventive, and rehabilitative care.”¹¹¹

By contrast, a high proportion of students graduate from law schools without any genuine exposure to a reflective practicum. In the typical law school, only one skills course is required, and it is generally the most underfunded course in the school (legal writing). The law school accreditation standards require a school to offer, on an elective basis, some “live-client or other real life practice experience . . . through clinics or externships,” but the school need only offer such a course; it does not even have to satisfy student demand for it.¹¹²

In architecture schools, *every* student is required to go into the studio and design. And the architecture accreditation standards are striking in two ways. First, their primary focus is on what students are actually learning. The architecture standards contain a list of 53 core competencies that graduates should have (called “achievement-oriented performance criteria”).¹¹³ An architecture school has the burden of proving that its students are learning those 53 core competencies,¹¹⁴ and the architecture standards are very sharply focused on measuring whether the school has carried that burden.

In scope and coverage, architecture’s achievement-oriented performance criteria correspond almost exactly to the Statement of Skills

¹⁰⁹ I am grateful to Michael Maliner for research on this point.

¹¹⁰ See text at note 63, *supra*.

¹¹¹ Liaison Committee on Medical Education, *Standards for Accreditation of Medical Education Programs Leading to the M.D. Degree* in FUNCTIONS AND STRUCTURE OF A MEDICAL SCHOOL 9, 13-14 (1995).

¹¹² AM. BAR ASS’N, STANDARDS FOR THE APPROVAL OF LAW SCHOOLS, Standard 302(d) (1998).

¹¹³ NAT’L ARCHITECTURAL ACCREDITING BRD., CONDITIONS AND PROCEDURES § 3.8 (1995). Achievement-oriented performance criteria have been part of architecture accreditation since 1976. *Id.*, § 2.1.

¹¹⁴ *Id.* at § 3.8.

and Values in the MacCrate Report,¹¹⁵ which includes all the analytical skills law school doctrinal teachers assume they are teaching as well as the practice skills that are the focus of clinical and other skills courses. In other words, no significant effort would be required to develop a list of core competencies for law schools because one already exists.¹¹⁶

Second, the architecture standards instruct accreditation inspection teams to conduct site visits in a way that focuses on the work students are actually doing.¹¹⁷ The school must provide the team with an extensive and representative selection of student designs. In addition, the team goes into the school's design studio, examines the projects students are working on, and talks to the students about the quality of their work. It is not enough that a school makes efforts to teach the material covered in the achievement-oriented performance criteria. The school has to *succeed* in its teaching, and the test of success is the work students actually produce in the design studio.

Law school accreditation standards, on the other hand, do not evaluate whether a school is teaching successfully. Student work is hardly ever examined by accreditation inspection teams. The law school accreditation standards contain no equivalent to architecture's achievement-oriented performance criteria. Accreditation measures a law school's teaching effectiveness (education's "outcome assessment") only by examining bar passage rates, although the bar examination has never been validated as a measure of lawyering competence. Even where the bar examination includes the Multistate Performance Test, it is unlikely ever to be so validated. Medical and architecture students are allowed to graduate only after they demonstrate elementary professional skills by treating patients and designing

¹¹⁵ ABA SECTION OF LEGAL EDUCATION AND ADMISSIONS TO THE BAR, LEGAL EDUCATION AND PROFESSIONAL DEVELOPMENT — AN EDUCATIONAL CONTINUUM, REPORT OF THE TASK FORCE ON LAW SCHOOLS AND THE PROFESSION: NARROWING THE GAP (1992). In its outline form, the SSV lists 48 skills and values. *Id.* at 138-41. The full version of the SSV breaks these out into a much larger number of sub-skills and values, with commentary. *Id.* at 141-221.

¹¹⁶ The MacCrate Report contains a disclaimer that the SSV "is not designed to be used as a measure of performance in the accrediting process." *Id.* at 132. But architecture's corresponding list of core competencies has been the focus of accreditation for more than a generation. The medical accreditation standards do not contain a list of core competencies because early in this century a broad consensus emerged in medicine that students needed to learn, in medical school, a wide variety of skills. That consensus grew out of the after effects of the Flexner Report at the beginning of this century. See ABRAHAM FLEXNER, MEDICAL EDUCATION IN THE UNITED STATES AND CANADA: A REPORT TO THE CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING (1910). It so thoroughly dominates medical education today that accreditation need only deal with the subject in a general way. See text at note 105, *supra*. No similar consensus exists in legal education.

¹¹⁷ NATIONAL ARCHITECTURAL ACCREDITING BOARD, *supra* note 113, at § 4.1.7.

buildings. An examination can never provide such direct evidence of competence because the work of a lawyer does not include answering examination questions.

Among the professions, legal education stands nearly alone in its contempt for the idea of a reflective practicum. Because it does not expect itself to produce practitioners, legal education is in many ways closer to graduate liberal arts education than it is to professional education *as other professions define it*. In other professions, practica might not be as effective as they could be. But at least they are required courses, taking up large parts of the curriculum. It would be unthinkable to graduate physicians with no clinical clerkships or architects with no experience in a design studio.

Legal education's failure to match what other professions do can be documented through a comprehensive comparative study of professional school curricula and accreditation, undertaken in a systematic way over a period of years. If that study is ever done, it should be given the widest circulation among bar groups, university administrators, state supreme courts, and other interested governmental bodies.