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Transmission of Mastery

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Transmission of Mastery

JAMES A. GARDNER†

ABSTRACT

James A. Garfield, speaking of the legendary professor and longtime president of Williams College, Mark Hopkins, reputedly remarked, “The ideal college is Mark Hopkins on one end of a log and a student on the other.” This longstanding ideal—a highly talented teacher deeply engaged with a student—has been eclipsed in our time by a bureaucratic conception of education characterized by prescriptive curricula; standardized constraints on teacher discretion, such as rubrics; and continual assessment, not only of students but of professors, no matter how talented. In this paper, I defend the “Mark Hopkins model” as the only conceivable way to produce the transmission of mastery from master to novice.

†Bridget and Thomas Black SUNY Distinguished Professor of Law and Research Professor of Political Science, University at Buffalo Law School, The State University of New York. This paper was written for a conference in honor of my colleague Jack Schlegel, entitled “Serious Fun: A Conference around and with Schlegel!” In my thirty years in the academy, I have never encountered a more thoughtful and engaged interlocutor on the subject of teaching. The ideas presented here were inspired by a two-decade, ongoing conversation with Schlegel, and I offer this paper with humble gratitude, in honor of those conversations. I also thank my colleague Bert Westbrook, who organized the conference, for providing me the opportunity to reflect at length on the subject. I additionally thank Herb Gardner, Jane Gardner, and Jay Mootz for comments on an earlier draft, and Dan Caves for valuable research assistance.

To do so, I make the following claims: (1) only masters are capable of judging mastery; (2) masters are those and only those who either are acknowledged as masters by other masters or who self-claim mastery; (3) virtually nothing can be said a priori about the content of mastery in any domain, nor can its content be fully articulated, even by masters; (4) the only way to transmit mastery is via the teaching of a master, and which methods of doing so most effectively cannot be determined a priori; (5) masterful teaching involves discarding preconceived lesson plans as often as it does sticking to them; (6) the variability of assessment from master to master or even by a single master assessing the same or different students at different times does not in any way impugn the validity of their judgments; (7) the most reliable method of evaluating mastery consists of the consensus of multiple masters expressed over a period of time in a transcript; (8) the essence of masterful teaching consists of the perpetually repeated deployment of trial and error, meaning that the content and methods of successful transmission of mastery can never be prescribed in advance; (9) there is no such thing as mastery of “teaching,” *tout court*; there is only mastery of teaching something; and (10) the modern move toward prescription and assessment results not from the discovery of better and more reliable ways of transmitting mastery, but from the abandonment altogether of transmitting mastery as a goal of education; its actual goal has become the mass reproduction of basic competence.

“The ideal college is Mark Hopkins on one end of a log and a student on the other.”

— James A. Garfield, speaking of the legendary professor and longtime president (1836-1872) of Williams College¹

“The dean and the faculty of a law school shall conduct ongoing evaluation of the law school’s program of legal education, learning outcomes, and assessment methods; and shall use the results of this evaluation to determine the degree of student attainment of competency in the learning outcomes and to make appropriate changes to improve the curriculum.”

— American Bar Association Law School Accreditation Standard 315

MASTERY

1

Here is my claim: “I am an outstanding lawyer.”

Am I not?

Well? I’m waiting.

2

Who is capable of evaluating such a claim? Clearly, only an outstanding lawyer can evaluate this claim—a master of the practice of lawyering. By definition, only a master is capable of judging mastery.

1. FREDERICK RUDOLPH, *MARK HOPKINS AND THE LOG: WILLIAMS COLLEGE, 1836-1872* vii (1956). In another version of the story, Garfield said: “A pine bench with Mark Hopkins at one end of it and me at the other is a good enough college.” LEVERETT WILSON SPRING, *A HISTORY OF WILLIAMS COLLEGE* 210 (1917); *see also id.* at 211, n.1. The version with the log appears to have passed into the general lore. RUDOLPH, *supra*, at vii-viii.

Might another high-performing professional—a doctor, say—be able to judge the mastery of a lawyer? No. Some years ago, I saw an oral surgeon. While the surgeon was examining me, he admired the work of my dentist—“She does good work, doesn’t she?” he said. I mumbled, “Yes, she does,” but I knew very well I had no way of judging the validity of his claim, though it was very nice indeed to hear this validation from another practitioner of oral medicine.

Can a client judge the mastery of his own lawyer? No. Clients may develop hunches, but without legal training, they lack the ability to evaluate the quality of the legal work they purchase. This is precisely why clients are not permitted to direct the legal and tactical decisions of lawyers.²

Can a well-informed student—a senior apprentice, say—judge mastery? No. Such a person may be able to distinguish competence from incompetence, and may even be able to distinguish among degrees of moderate competence, but because his understanding of the practice to which he is apprenticed is by definition incomplete, he is not in a position to distinguish mastery from mere competence.

What about an experienced practitioner who, despite his experience, nevertheless lacks mastery? Although his opinion is not uninformed, he too is in no position to judge the mastery of others. A useful piece of social science research, known as the Dunning-Kruger Effect, has demonstrated the obvious: people of low competence, because they are unable to perceive the performative difference between competence and incompetence, cannot even perceive their own incompetence, and thus frequently judge themselves to be far more competent than they are.³ This

2. Model Rules of Pro. Conduct r. 1.2(a) cmt. 2 (Am. Bar. Ass’n 1983); N.Y. Rules of Pro. Conduct r. 1.2(e) (2009).

3. David Dunning, et al., *Why People Fail to Recognize Their Own Incompetence*, 12 CURRENT DIRECTIONS IN PSYCH. SCI. 83 (2003); David Dunning, *The Dunning-Kruger Effect: On Being Ignorant of One’s Own Ignorance*, in 44 ADVANCES IN EXPERIMENTAL SOC. PSYCH. 247 (2011).

disqualifies them from perceiving competence in others, much less mastery.

3

If only masters can judge mastery, who, then, is a master? There are two and only two possibilities: (1) those so acknowledged by other masters; and (2) self-proclaimed masters.

In our society, we have to a great extent institutionalized the identification of mastery through the creation and distribution of formal trappings of acknowledgment: degrees, certificates, testimonials, inductions into guilds, and so forth. Whether such methods in fact successfully identify true masters is a question I shall set aside here. But even assuming these modes of acknowledgment are accurate, they do not exhaust the universe of possibilities because individuals who lack the formal trappings of acknowledgment may also claim mastery.

A dozen years ago, *The New Yorker* published an illuminating account of how a system of self-proclaimed masters may operate in practice.⁴ In the early 2000s, automobiles were relatively scarce in China, yet with only three percent of the world's autos, China accounted for more than twenty percent of its accidents. In this "nation of new drivers,"⁵ understanding of safe driving practices was scarce, and eventually, the Chinese government began to require driver training as a condition of licensure.

This suggests a high degree of standardization, but much depends on the instructor, who is called a *jiaolian*, or "coach." Often, coaches have developed their own theories and regimens, like the martial-arts masters of old. Wei Ziqi's coach . . . forced his students to begin

4. Peter Hessler, *Wheels of Fortune: The People's Republic Learns to Drive*, THE NEW YORKER, Nov. 19, 2007, at 104.

5. *Id.* at 108.

every maneuver in second gear. It was more challenging, he said; first gear would only make them lazy.⁶

In one driving *dojo*,

[t]he students spent ten days on the parking range, and during that time they performed exactly three movements: a ninety-degree turn into a parking spot, the same maneuver in reverse, and parallel parking. Every day, for as many as six hours, they practiced these turns over and over. Like any good martial-arts master, Coach Tang was strict. “You must have forgotten your brain today!” he yelled, when a student brushed against a pole. “Don’t hold the gearshift loosely like that!” he shouted at another. “If you do, your father will curse you!”⁷

In the school of another driving *jiaolian*, the students’ final challenge was

the “single-plank bridge”—a concrete riser, a foot high and only slightly wider than a tire. Students had to aim the car perfectly, so that two wheels perched atop the riser If a single wheel slipped, they failed the exam. The students spent most of their ten days practicing the single-plank bridge, and I asked a coach why it was so important. “Because it’s very difficult,” he said.⁸

Systems of mastery by self-proclamation also exist in the United States. Masters of philately and numismatics generally self-proclaim, as do masters of horse-breeding, hair styling, and cosmetology, though sometimes these occupations require a license, a form of official validation of competence, though perhaps not of mastery. Self-taught amateurs sometimes proclaim themselves masters—in the field of history, for example—without the advanced study and formal trappings of consensus recognition, though of course such recognition may be, and sometimes is obtained informally, through testimonials of recognized masters.

But regardless of whether mastery is acknowledged by consensus or self-proclaimed, the status of master may be obtained exclusively through a process that is circular and

6. *Id.* at 110–11.

7. *Id.* at 111.

8. *Id.* at 112.

self-referential: because only masters are capable of judging mastery, the population of masters may be identified only by masters themselves. The insularity of this process sometimes creates, understandably enough, a degree of discomfort and suspicion among outsiders to the practice, a subject to which I will return.

4

Of what, then, does mastery consist? Surprisingly little can be said.

First, mastery is domain specific. There is no such thing as “mastery” *tout court*; there is only mastery of a specific domain. Consequently, generalizations about mastery are possible only at a level of abstraction so high as to be useless, if not indeed entirely circular—something on the order of “a master is one who has mastered the elements of his practice,” for example.

Second, mastery itself is highly variable. Even within a single domain, there is no fixed set of attributes that comprise mastery. Rather, mastery is more like a portfolio of knowledge, skills, and attributes that may be held in different combinations, provided that the total value of the portfolio, so to speak, surpasses some threshold. As a result, the content of mastery can differ from master to master, and may even be contested among masters who hold different kinds of portfolios, or who simply hold different conceptions of the practice of which they are acknowledged to be masters.

Third, mastery is a continuous journey, not a destination. As a master’s mastery increases, the content of his mastery necessarily changes and evolves. Moreover, masters, like other humans, change over time. Insight may arrive, even to masters, at any time. My own belief is that insight arrives whenever a person adventitiously becomes ready to receive it, and that different kinds of insight thus arrive at different chronological ages, and following the accumulation of different kinds of life experiences. Yet a late-arriving insight does not impugn the truth or value of earlier-

arriving insights; it merely underscores the fundamental fluidity of mastery, which is, after all, a human condition.

Fourth, mastery is by definition contextually responsive, so what counts as a masterful performance may change over time, as external conditions change. I have taught Constitutional Law for thirty years, and in that course I always try to teach my students how to construct and deliver good constitutional arguments. But what counted as good constitutional advocacy when I started, in the age of Brennan, Marshall, and Blackmun, no longer counted as good advocacy later, in the age of Rehnquist, Scalia, and Thomas, much less in the age of Roberts, Gorsuch, and Kavanaugh. Thus, the content and methods of masterful constitutional argument evolve, as does mastery of the art of constitutional advocacy.

5

Still, even if the content of mastery changes over time, within a given period can its content nevertheless be captured and catalogued in a book or a manual, perhaps? No.

For all the reasons just mentioned, the content of mastery is (i) variable, (ii) continually evolving, and (iii) contextual. These considerations erect significant and perhaps decisive obstacles to the full capture of mastery even in a snapshot valid only during the period in which it is taken.

More importantly, it seems to me that at any given moment not even a master himself is capable of articulating fully the content of his own mastery, even if he were inclined to do so. First, not even the most experienced master has encountered all possible problems and challenges, and so does not yet know the masterful response to these as-yet unencountered circumstances, even though he is likely capable of handling them masterfully should they arise. This helps explain a common aspect of the phenomenology of mastery: masters tend to be keenly aware of how little they know.

Second and more fundamentally, the master does not know everything he knows, or at least is unable to articulate it using the language of the mastered domain.⁹ For many years, I taught pretrial federal civil litigation. In that class, I required my students to develop legal arguments and write them in the form of briefs. Usually, students would make sound arguments, but occasionally, a student would make an argument that was frivolous, and thus forbidden under rules of professional ethics—a serious violation. When I would inform students that their arguments were frivolous, they often replied, with complete sincerity, “But it seems like a good argument to me.” I always found these moments uncomfortable because it is impossible to explain meaningfully to a student who doesn’t already see the frivolity of his argument why and in precisely what way it crosses the line from legitimate to frivolous. “Trust me,” was about all I could say; “it’s a matter of professional judgment; no judge would ever accept that argument.” “But why not?” the student would ask. What possible answer can one make to such a question? “When you acquire some experience,” I would respond, unhelpfully though truthfully, “you will understand why.”

Finally, to put the matter differently, what does it mean for a master to tell a student, “I’ve taught you everything I know”? Can we take this literally? Surely not. The master does not know when he has truly exhausted his stock of knowledge. Such a statement means only that, in the expert judgment of the master, more time spent with the master will not be as fruitful a use of the student’s time as time spent

9. It is immaterial to my point, but this may be merely an example of Gödel’s Incompleteness Theorem, which holds that no system is capable of fully justifying itself. See, e.g., PANU RAATIKAINEN, GÖDEL’S INCOMPLETENESS THEOREMS, THE STANFORD ENCYCLOPEDIA OF PHILOSOPHY (Edward N. Zalta, ed., Fall Edition 2018), <https://plato.stanford.edu/archives/fall2018/entries/goedel-incompleteness/>. Or, for another view of the impossibility of fully articulating knowledge of a practice, see Jack Sammons, *Confronting the Three Apprenticeships*, in TOWARD HUMAN FLOURISHING: CHARACTER, PRACTICAL WISDOM, AND PROFESSIONAL FORMATION (Mark L. Jones, et al., eds., 2013).

practicing in the domain studied. In these circumstances, the master cannot know precisely what the student will learn in practice. Instead, he merely relies on the knowledge that novices may learn things in ways other than from a master's instruction, and the master does not know in any individual case what these things are, or perhaps he would teach them himself.

6

Although the content of mastery is impossible fully to articulate, we can nevertheless say this much: mastery is—indeed, must be—something distinct from what I shall call “basic competence.” Consider again the example of teaching driving. Formula One race drivers and professional stunt drivers do not teach driving to 16-year-olds. If they teach driving at all, presumably they teach race and stunt driving. This suggests that those who teach driving to teenagers in the United States are not themselves masters of the practice of driving. Nevertheless, they are good enough for the purpose for which they have been engaged. Evidently, they possess basic competence in driving, which is what they transmit to their students, and is by definition all they are capable of transmitting. I shall return to this issue.

TRANSMISSION OF MASTERY

7

How is mastery transmitted? By the teaching of a master, and in no other way.

Is it possible for mastery to be taught by a non-master? No, by definition. Non-masters cannot transmit mastery because, lacking mastery themselves, it is not theirs to transmit.

What if the non-master has in his possession a curriculum developed by a master, along with, say, a “rubric”—a grid or checklist directing a non-master instructor what to look for and precisely how to reward it?

Such tools can certainly help the novice advance. But can they so elevate the game of a non-master that he or she becomes able to transmit mastery itself? No. Those who are not masters cannot recognize mastery, and those who are incapable of recognizing its presence or absence cannot therefore inculcate it. Since progress toward the achievement of mastery is something that can be judged only by a master, the question of how to move any given student forward, toward mastery, is something that can be judged only by a master, in that moment.

Modern theories of teaching stress testing,¹⁰ but testing has no necessary relationship to mastery, except perhaps mastery of test-taking. When I was studying for the bar, my review materials contained practice bar exams. Once, my mother asked if she could take a practice exam. She had never studied law, and had no interest in doing so—she was an English teacher. She did, however, possess an exceedingly sharp mind and a certain genius for taking tests. When she took the practice bar exam, without so much as glancing at the substantive study materials, she got about half the questions right—nearly a passing grade. This did not make her a master of legal practice. It did not even demonstrate that she knew any law. It did, however, illustrate what all law professors know: that the bar exam tests little having to do with good lawyering. It tests good test-taking, a practice of which my mother was, and remains, a master.

I do not wish to disparage tests. Administering a test is one way—indeed, a traditional and quite properly respected way—in which a master may judge a student's progress toward mastery. But so is simple *observation*, and especially observation over an extended period of time, in different conditions that require different tasks and responses. I have often found it puzzling that clinicians, who have far more meaningful opportunities than any other law faculty to observe their students' actual, professional performance, are

10. *E.g.*, BARBARA E. WALVOORD, ASSESSMENT CLEAR AND SIMPLE 13 (2004).

among the most heavily invested in formal, rigid methods of assessment.¹¹

8

I have said that mastery can be transmitted only by masters. But is it possible to say more? Is it possible to say, for example, that mastery can be transmitted by masters, or can be transmitted most effectively by masters, only when they employ some specific method of instruction—for example, only when they employ “formative” rather than merely “summative” forms of assessment?¹² No. If the content of mastery itself cannot be fully captured, then *a fortiori* neither can the conditions or methods of its successful transmission.

9

This brings us to Mark Hopkins on a log. What is meant by holding up this image as the very model—indeed, the acme¹³—of effective pedagogy?

Nineteenth-century college professors taught principally by “[l]ectures, meticulous grading of classroom recitations, and memorization.”¹⁴ Hopkins was guided by a different philosophy. He preferred to “watch the progress of individual mind, and awaken interest, and answer objections, and

11. *E.g.*, Amy L. Ziegler, *Developing a System of Evaluation in Clinical Legal Teaching*, 42 J. LEGAL EDUC. 575 (1992); José García Añón, *How Do We Assess in Clinical Legal Education? A Reflection on “Reflective” Learning*, 23 INT’L J. CLINICAL LEGAL EDUC. 48 (2016).

12. KAY BURKE, *BALANCED ASSESSMENT: FROM FORMATIVE TO SUMMATIVE*, 21, 23 (2010); ROY STUCKEY, ET AL., *BEST PRACTICES FOR LEGAL EDUCATION: A VISION AND A ROADMAP* 236ff (2007); WILLIAM M. SULLIVAN, ET AL., *EDUCATING LAWYERS: PREPARATION FOR THE PROFESSION OF LAW* 164–67 (2007).

13. *See* RUDOLPH, *supra* note 1, at vii (Garfield’s remarks “came to be looked upon by many as the most satisfactory definition of what an American college ought to be”).

14. *Id.* at 52–53.

explore tendencies.”¹⁵ To accomplish these goals, he varied his methods of instruction. He often asked “keen, stimulating, instructive questions”¹⁶ to generate discussion, and—shockingly for his era—sometimes asked students what they themselves thought.¹⁷ Here is a recollection of one of his students a half-century after the fact:

“I rang the bell Senior year at the end of the hour,” said a member of the class of 1862, “and sat near the door in the recitation room back of the new chapel and quite on the left of the President. One day he turned half about in his chair, looked inquiringly and expectantly at me, and asked a question. I have no idea what that question was or what answer I gave, but the incident made an impression upon me which the intervening years—there are fifty-three of them—have not obliterated.”¹⁸

Above all, Hopkins’s purpose differed from that of most of his contemporaries: “The purpose of it all, the end in view, was not primarily to communicate knowledge, but to set his students ‘intellectually on fire.’”¹⁹

When I imagine Mark Hopkins on a log, I imagine a master of his craft approaching the instructional task with a stock of knowledge and experience, and some well-earned and carefully formulated ideas about how to proceed, but willing, and indeed expecting, to improvise—willing and expecting, that is, to tailor both his topics and his methods of instruction to the immediate needs of his students, diagnosed on the spot. I imagine a teacher not committed in advance to any particular curriculum or methodology, but

15. *Id.* at 48.

16. SPRING, *supra* note 1, at 225.

17. See RUDOLPH, *supra* note 1, at 50.

18. SPRING, *supra* note 1, at 223–24 (quoting letter of Rev. E.E. Lewis).

19. *Id.* at 223. This approach seems to have come to be well understood as one used intuitively by the best teachers. See KEN BAIN, WHAT THE BEST COLLEGE TEACHERS DO 99 (2004) (“[T]he best teachers try to create a natural critical learning environment; ‘natural’ because students encounter the skills, habits, attitudes, and information they are trying to learn embedded in questions and tasks they find fascinating—authentic tasks that arouse curiosity and become intrinsically interesting.”).

committed instead only to deploying whatever curriculum and instructional methodology will, in that moment, best serve the goal of moving the student a few steps further toward mastery—and if not toward mastery, then at least toward the development of an internal hunger for mastery, which will itself motivate the student to proceed further, even outside the presence of the master.

A “rubric,” on this account—a fixed template for teaching a subject—is precisely the definition of bad teaching because it represents a rigid and necessarily speculative prediction of what will profit a student most at a particular moment in his or her path toward mastery. This is not to say that good teaching does not require a great deal of preliminary groundwork and preparation; clearly, it does. But preparation alone will not suffice. The teacher needs to *teach*—not merely to recite, like an automaton—and effective teaching often, and perhaps frequently, means throwing out the script rather than sticking to it as the actual needs of actual students come gradually into view.

Here is an example from personal experience. I’m teaching *Lujan*, an important standing case, in Constitutional Law. The test for Article III standing has two causation elements.²⁰ Causation is something that my students have already covered extensively last semester in Torts. In questioning students about the facts of the case, it becomes clear to me (how? by what means?) that my students don’t know how to tell a convincing causation story—that is, they do not know how to select and shape the facts to build a persuasive story in which X causes (or fails to cause) Y. The ability to construct and relate such stories is, in my judgment, a critical lawyering skill. Do I: (a) ignore the problem, because teaching causation isn’t part of the Constitutional Law curriculum, and they should have

20. A typical formulation is: “A plaintiff must allege [1] personal injury [2] fairly traceable to the defendant’s allegedly unlawful conduct and [3] likely to be redressed by the requested relief.” *Allen v. Wright*, 468 U.S. 737, 751 (1984). Elements 2 and 3 require a causation analysis.

already learned it; (b) continue without addressing the problem because the costs to my coverage goals will exceed the benefits to the students; or (c) stop the class, ditch my lesson plan, and teach the subject because they need to know it if they are to master the craft of lawyering?

What would Mark Hopkins do on his log? I believe he would throw out his lesson plan, which is what I almost always do in these circumstances. Is that bad teaching? It is not.

10

Of what, then, does masterful transmission of mastery consist? I contend it comprises two essential elements: (1) sound, perceptive *diagnosis* of the problems a novice faces at some particular moment, and (2) administration of a thoughtful and carefully tailored *cure* for those problems. Neither the problems nor the most effective cures can always be predicted in advance.²¹

My father is a retired music teacher, and a bit of a legend among his former students. He can teach any instrument, but his specialty is strings. In his retirement, he has taken on the role of consultant to some of his former students who are now themselves string teachers. They bring him their most challenging problems. He diagnoses these problems, and then devotes considerable time to writing short, original compositions designed to mount a direct attack on the student's weakness. On one occasion, for example, he diagnosed a student's problem as insufficient independence of the fingers of the left hand. To treat this problem, he wrote a composition—not a dull, repetitive exercise, but a coherent, albeit simple piece of music of the kind that a child might

21. It is possible of course that periodically circumstances align in a way that makes it easy to predict the problems incoming students will appear with, as well as the best treatment for those problems. At other times, though—for example, as one cohort is replaced by another with different characteristics—predictability may decline, perhaps greatly. Thus, the ability to predict student problems and identify “best practices” to treat them is variable, local, and entirely contextual.

actually wish to master—that required the student periodically to play broken thirds, a figure that can be played only when the fingers of the left hand operate with a great degree of independence. Mark Hopkins, I am certain, would have approved.

11

One of the great objections leveled by the assessment movement at the conception of transmission of mastery I have just sketched is its variability. Different students, it is claimed, performing equivalently, will nevertheless be evaluated differently by different masters, or even by the same master at different times. This is said to show the “subjectivity”—a concept used in this context pejoratively—of traditional methods of transmission of mastery²²—the Mark Hopkins method, let us call it. Suppose the charge is true: evaluation of students is subjective and variable. Does this demonstrate a defect in the Mark Hopkins model? It does not.

As explained earlier, mastery is not a steady state. First and foremost, masters are human. Second, true mastery itself inevitably evolves as the master himself continues to acquire new knowledge and experiences—mastery is a journey, not a destination—so that different students who appear before the master at different times will inevitably receive slightly different instruction and slightly different evaluation by slightly different criteria. The more pertinent question is whether variability in assessment from student to student during essentially the same period impugns the master’s claim to be able successfully to judge the performance of novices. Yet is there any alternative? No human being can apply precisely the same standards in

22. See, e.g., MARY E. McDONALD, SYSTEMATIC ASSESSMENT OF LEARNING OUTCOMES: DEVELOPING MULTIPLE-CHOICE EXAMS 10 (2002); Jessica Clark & Christy DeSanctis, *Toward a Unified Grading Vocabulary: Using Rubrics in Legal Writing Courses*, 63 J. LEGAL EDUC 3, 3 (2013).

precisely the same way in every set of circumstances, over and over and over again.

The great cure for this problem of human inconsistency, according to what appears to be a theory with many adherents among professional educators, is the rubric—a standard metric which the teacher produces and proceeds to apply mechanically—and thus, it is maintained, impartially—to the work of each and every student.²³ This is a foul lie. I confess that, in occasional moments of doubt about my own ability to evaluate student work consistently, I have developed and administered rubrics. Here is what I always find: when I use a rubric, I cheat—constantly. It will often happen like this. I read an exam answer. The author has checked many or even all of the pre-programmed boxes—spotted the issue, deployed the correct test, noticed and addressed a key fact, and so forth. Yet, on scoring the exam, I am troubled: the execution is poor, say, revealing that the student does not really—not *really*—know what he or she is doing. That is, I cannot say with any degree of comfort that the student’s answer proceeds from actual mastery, from mere dumb luck, or from some combination. At the same time, another student has done a masterful job of addressing a portion of the problem, but failed to address, or to address adequately, other issues I have identified in my rubric and to which I have assigned point totals.

There is only one way to handle this: I cheat. I find a way to take points off the bad exam in some category of my rubric just because the exam is bad; and to give points to the good exam, just because it is good. I find myself inventing “bonus points” that I had not previously planned to award. I fully believe, moreover, that instructors who do not cheat in this

23. See Clark & DeSanctis, *supra* note 22; BARBARA E. WALVOORD & VIRGINIA JOHNSON ANDERSON, *EFFECTIVE GRADING: A TOOL FOR LEARNING AND ASSESSMENT IN COLLEGE* 40, 42–44 (2d ed. 2010); see also DANIELLE D. STEVENS & ANTONIA LEVI, *INTRODUCTION TO RUBRICS* 4 (2005) (“One sure sign [you need a rubric] is if . . . [y]ou have graded all your papers and worry that the last ones were graded slightly differently from the first ones.”).

way—who stick fanatically to the rubric in the belief that it forces them to be fair in ways of which they are otherwise incapable—do so only by willfully ignoring what their own professional judgment tells them is true.

The real question, then, isn't whether judgment can be made invariable—it cannot—but how to deal with questions raised by the mass production of education. This is the real point of the “assessment movement,” a subject to which I shall return. The “problem” here has little to do with education; it has only to do with how to resolve tradeoffs required by its mass production—and by the suspicion of outsiders arising from the insularity of any practice.

12

One frequently employed response to these problems is to give an “objective” exam—a multiple choice exam, say.²⁴ The scoring of such an exam is automatic, depriving the teacher of any and all discretion; indeed, the scoring can be outsourced to a machine, guaranteeing its consistency and thus impartiality.²⁵ The scoring, moreover, is transparent, and thus is easily explained to outsiders who may be suspicious of the subjectivity of the master's methods of evaluation and the self-referential character of their disciplinary validation.

But such an exam is not any less “subjective” or even “variable” than an essay, oral, or performance exam—the subjectivity and variability simply occur on a longer time scale. A multiple choice test given one year may demand different answers or performances than one given the next year. All that is different is that the “subjectivity” and potential “variability” occur only once, at the time the test is made, rather than occurring repeatedly with each student. But if each student is subject to exactly the same standard of

24. See MCDONALD, *supra* note 22, at 67. A multiple choice exam is “objective,” on this view, because “subjective judgment is not involved in scoring them.” *Id.*

25. This is said to be an aspect of a test's “reliability.” *Id.* at 152.

judgment of mastery, it does not follow that the quality of the judgment is better. The test itself might be badly flawed, so that every student is judged equivalently and impartially by a flawed, and thus meaningless, standard. It is far from certain that all masters would even agree on which is the best answer to all the questions asked. This is precisely why I never assign commercially prepared study aids to my first-year students; sometimes I disagree with the analyses provided by the authors.

If in contrast the master had given each student individually a lengthy oral examination, the master's judgment might have varied from day to day and from student to student, but all students would have received an evaluation that was fundamentally sound, even if not precisely identical—an important distinction that seems to be widely ignored in the educational literature. A multiple choice test is therefore more consistent, but not necessarily better. Again, Exhibit A is the bar exam itself, which no doubt is applied consistently from taker to taker, but has achieved this consistency only at the cost of sacrificing evaluation of any skills that are actually relevant to the successful practice of law. Moreover, the construction of a test like the bar exam requires a special skill that is generally completely divorced from the kind of mastery that the master claims, and in which he instructs, and in the acquisition of which it is far from clear he should invest.

All this goes a long way toward demonstrating why the best way to evaluate students is (1) by consensus (2) over a long period of time. Since mastery itself can most reliably be identified and acknowledged by consensus among experts employing the conventions of their field, the same is true of evaluating the performance of novices. Thus, the overall judgment of an *entire faculty* over the course of a student's academic career, expressed in a *transcript*, is by far the best way to provide an accurate evaluation of the student's level of mastery. I am always concerned when students who, on the basis of their class performance, I think well of then do

poorly on my exam. But I am much more concerned when students who are, *by consensus of my colleagues*, excellent students do poorly on my exams.

I am inclined to think, moreover, that when students are subjected to the judgment of many masters over long periods of time, it matters very little what method or standards of evaluation are used—everything will even out in the long run; the student's progress will be accurately gauged. Indeed, over decades of experimentation with different forms of examination and evaluation, I have found exactly this: regardless of the format, the students almost invariably manage to distribute themselves normally, with the best students at the top and the worst at the bottom. And at the end of the day, if the collective judgment of an entire faculty of masters will not suffice to judge accurately a student's acquisition of mastery, then nothing will.

TEACHING

13

To this point, I have simply assumed that masters teach, and that they do so masterfully, but I want now to introduce a complication. What, precisely, is good teaching a demonstration of? What kind of mastery does it display? I see four possibilities.

First good teaching might be an inherent aspect of mastery itself. That is, mastery of a practice includes by hypothesis mastery of the practice of reproducing mastery. Consequently, all masters can teach.

Second, good teaching might demonstrate a kind of *specialized* mastery, though a kind that still falls within the practice domain mastered. In this case, some but not all masters can teach; one can practice mastery without being able effectively to replicate it.

A third possibility is that good teaching demonstrates a kind of *superior* mastery of the relevant domain. Thus, all

true masters can teach, and teaching is something reserved for the best of the best. This is, I suspect, how many university professors conceive of teaching, and why they are so often concerned with educational pedigree, the theory evidently being that graduation from, say, an Ivy League *dojo*, rather than one maintained by a state university, validates a claim of superior mastery.

Finally, good teaching might demonstrate a *distinct* mastery of a wholly different domain—the domain of teaching—in *addition to* mastery of the domain in which instruction is given. Mastery in this case does not imply replication; to transmit mastery to others, the master must learn, and ultimately achieve mastery of, a different domain. This is the claim made by education “specialists,” a class of individuals, produced mainly by university schools of education, who proclaim themselves masters of “teaching” *tout court*—that is, teaching divorced from any particular field of mastery that they purport to transmit.

14

What, if anything, does the achievement of mastery teach the master about teaching mastery? In a sense, not much. The master of course knows how he himself acquired mastery. But surely there are many different paths to mastery, in part because studying under different masters may require treading different paths, but also because individual differences from student to student may mean simply that no two novices follow precisely the same path to mastery even when they study side by side under the same master. Consequently, it is possible that a master’s ability to lead another along precisely the path to mastery that he himself has trod may be of limited value.

But is that the only kind of knowledge of the route to mastery that the achievement of mastery confers? Perhaps not. The achievement of any kind of mastery necessarily entails knowledge of what it means to *understand* something fully. Such knowledge is rare; few people achieve mastery of

anything, and thus have never known the sensation—for that is what it is, a sensation—of profound understanding. Perhaps this kind of knowledge—an understanding of understanding—by itself equips the master to teach others because it puts him in a position to recognize the presence or absence of true understanding in others. Every master knows his own path to mastery, but assuming he is not entirely without imagination, surely he can imagine, at least within limits, how the path might be altered to suit another.

Furthermore, the achievement of mastery may inherently require great skill at learning itself, and self-directed learning, at that. As a result, masters may be able to master other domains more easily than those who have never achieved mastery in any domain. Suppose, then, that successful teaching of a practice that one has mastered requires learning either a new aspect of the mastered domain, or even an entirely distinct domain—the domain of teaching. In those cases, perhaps masters may be able to learn to teach their own subject—perhaps nearly any subject—very quickly, and then go on learning, again relatively quickly, to teach it well.

These appear to be assumptions made almost universally in educational institutions. Law schools in particular seem to take the view that virtually any faculty member can teach virtually any course. As a first-year law student, I had the pleasure of taking Contracts from Antonin Scalia, who was an entertaining and jocular teacher, but his primary field of expertise was administrative law, and in retrospect, I doubt he knew much at all about contracts. The law school administration, however, seemed to think that any teacher who was good at teaching his own subject would be good enough at teaching any other subject, at least in the first-year curriculum.

This is probably true, but for different reasons, I suspect, from those that lay behind the decision of the University of Chicago Law School to assign Professor Scalia to teach Contracts. The dirty little secret is that when professors take

on new courses, they actually teach the same course they have always taught, though the students don't know it. I'm sure students who have taken Constitutional Law from me believe they have had a different course from those who have taken my Civil Procedure course. But I know otherwise; the courses are identical in the ways that really matter.

15

When masters endeavor to transmit their mastery, they generally get better at it with practice and experience. What should we make of that?

I have suggested that true teaching, of the kind that counts as transmission of mastery, consists essentially of two elements: diagnosis and treatment. As masters gain experience, surely their diagnostic skills improve. Eventually, they've seen it all before, or much of it. Patterns emerge in student difficulties, and the master begins to sense the patterns. Similarly, as the master gains experience administering treatments, he becomes more adept at choosing and administering them.

Of course, the dominant patterns of diagnosis and treatment can and do change over time. As any experienced teacher knows, different student cohorts arrive with different kinds of problems. As a result, the content and methods of successful transmission of mastery are never static. Still, experience helps—but experience doing what?

I contend that what experience in the transmission of mastery confers upon masters is simply this: more experience with trial and error, and indeed that masterful teaching is neither more nor less than that—*the continual deployment of trial and error for the purpose of moving novices toward mastery.*

This explains why only a master can transmit mastery. Anyone stuck in front of a classroom can use trial and error to teach, but a master's trial and error is *informed*—by domain-specific mastery itself, and by the judgment and

experience that accompany it. Indeed, a master who fails constantly to employ methods of trial and error becomes stale, and mastery that is static decays. Thus, the apogee of good teaching is precisely informed, experienced trial and error tailored to the immediate needs of individual students—Mark Hopkins on a log.

16

But what about masters who teach badly? What does this phenomenon tell us about the transmission of mastery? In particular, does bad teaching impugn a master's claim to mastery?

If mastery of a subject necessarily embraces the capacity to teach it, then of course bad teaching impugns the bad teacher's claim to mastery. But it seems to me dubious that mastery of a practice necessarily implies *a fortiori* to any great extent mastery of its replication. On the other hand, if mastery implies an advanced ability to *learn* how to transmit that mastery to others through teaching—which seems to me quite plausible—what then does persistently bad teaching over many years imply?

One possibility, clearly, is a lack of underlying mastery.²⁶ Among teachers of writing it is widely accepted that the most common cause of bad writing is bad thinking. On the same principle, a possible cause of bad teaching—teaching that is confusing or disorganized—is simply thinking that is correspondingly confused or disorganized, a condition largely incompatible with a plausible claim to mastery. Yet I think this situation is probably quite rare.

A more common explanation, it seems to me, is that some masters—a very small number, I believe—either lack interest altogether in developing their skill as teachers of

26. See Gary Shaw, *A Heretical View of Teaching: A Contrarian Looks at Teaching, the Carnegie Report, and Best Practices*, 28 *TOURO L. REV.* 1239 (2012) (attributing criticism of the Socratic method to incompetent use of that method by poor teachers).

and mentors to novices or, more likely, don't care to invest their effort in transmitting their mastery to every student who appears on their doorstep. Some masters, for example, may wish to train only the best and most promising students.

Such a choice raises two questions. First, do masters have an obligation to train all students? In traditional systems of apprenticeship, masters were not obliged to train all comers; they could select their own apprentices based on whatever criteria they chose to apply. Some masters, we may assume, chose to accept only the most promising and highly motivated students. In the modern university (assuming it to be a place populated by masters), the obligations of mastery are different: virtually all faculty must teach whatever students the university deems eligible to register for their courses, and the expectation is that masters will devote an appropriate amount of effort to all students, whatever their aptitude.

Second, if the obligations of mastery do include mentoring all students diligently, does the failure to do so impugn the master's claim to mastery? I believe it does to a certain extent insofar as a master who refuses to fulfill this obligation displays what I consider a lack of *self*-mastery; he is unable to force himself to fulfill his obligations as a master. Can one who lacks self-mastery nevertheless plausibly claim mastery of his practice? I am dubious; self-mastery seems to me a fundamental prerequisite to the achievement of genuine mastery.

Many years ago, I studied taekwondo at a pioneering *dojo* in Washington, D.C. The students were of all ages, and some of the younger students wanted to be instructed in the use of weapons. In that *dojo*, the study of weapons was forbidden until a student had attained the degree of black belt. The head instructor explained it in this way: "A weapon is merely an extension of your body. Until you have mastered your own body, you cannot possibly master the use of a weapon. A black belt recognizes mastery of the body, so you cannot study weapons until you earn your black belt." I am

inclined to think this reasoning relevant to any kind of mastery: mastery of the self is a precondition to mastery of a practice—any practice.²⁷ Thus, masters who choose deliberately not to cultivate and then to exercise their teaching skills in challenging situations—if such creatures exist—display, in my view, a lack of self-mastery that calls into question to some degree their underlying mastery.

17

Is there such a thing as mastery of *teaching*, as distinct from mastery of teaching *something*? This appears to be the claim made by schools of education that train primary and secondary school teachers.²⁸ Indeed, it appears to be the claim made almost universally by state regulators. For the most part, one cannot be licensed to teach at a public school by producing a degree showing mastery of a subject that teachers teach in schools—an advanced degree in history, for example, or mathematics. Instead, one must produce two things: a bachelor's degree—by no means a demonstration of domain-specific mastery—and a credential from a school or department of education, a credential that appears to claim that its holder is a master simply of “teaching.”²⁹

27. See generally JAMES DAVISON HUNTER, *THE DEATH OF CHARACTER: MORAL EDUCATION IN AN AGE WITHOUT GOOD OR EVIL* 16, 56 (2000).

28. For example, the Harvard Graduate School of Education describes itself as “an impact-focused professional school that is working to improve opportunities and outcomes for all learners.” HARV. GRADUATE SCH. OF EDUC., <https://www.gse.harvard.edu/about>. The Stanford Graduate School of Education is dedicated to achieving effective learning for all. STAN. GRADUATE SCH. OF EDUC., <https://ed.stanford.edu/about>. Graduates of the University of Wisconsin School of Education are committed to high-quality, culturally responsive instruction that serves every student. UNIV. OF WISCONSIN SCH. OF EDUC., <https://tec.education.wisc.edu/become-a-teacher/>. Its courses “will prepare you to be a competent, critically reflective educator.” UNIV. OF WISCONSIN SCH. OF EDUC., *supra*.

29. For example, to be certified as a teacher in California, one must hold a bachelor's degree and complete an approved “teacher preparation program. Such a program contains educational curriculum.” ALL EDUC. SCHS., <https://www.alleducationschools.com/teacher-certification/california/>.

If teaching in primary and secondary schools is meant to produce the transmission of mastery, then the present credentialing system is fatally flawed since it does not require teachers to be masters of the practices in which they instruct students. There is, however, another possibility: primary and secondary schools are not, nor are they intended to be, venues for the transmission and acquisition of mastery. Instead, they are meant to be venues for the transmission and acquisition of basic competence. If so, then the main qualification for a faculty position in such a school is simply to be an adult in possession of basic competence. It is presumably in this context that a degree in “teaching,” rather than in teaching a specific practice or domain, is claimed to have meaning.

Is it meaningful? Perhaps. Masters devote significant time, effort, and excruciatingly close attention to the acquisition and cultivation of mastery. Perhaps the acquisition of basic competence is different. Its possessors may not know how they acquired it, or even when. Having had no particular need to reflect upon their own basic competence, they may lack a clear idea of in what it consists. Having never been part of a system created deliberately to replicate a very high level of competence, they may be largely unacquainted with the means by which facility in a practice is transmitted.

It is perhaps in these circumstances that the kind of instruction offered in schools of education may be useful, along with standardized teaching aids such as textbooks, commercially produced lesson plans, rubrics, off-the-shelf tests, and other products devised by masters for use by non-masters.

ASSESSMENT

18

All educators, at every level, whatever their prior experience, and whether they like it or not, now inhabit the

Empire of Assessment. In this vast realm, Mark Hopkins and his log are out. In his place is a regime of constant assessment, both of student learning and institutional success, in which the instruments of assessment must produce results that are susceptible to counting, a practice that is considered the exclusive source of objective evidence of achievement.³⁰ Dimensions of achievement not susceptible to evaluation by counting are deemed excessively subjective and are exiled.

The ascendance of the Empire of Assessment results from the confluence of several trends. One is a vague suspicion, to which I alluded earlier, understandable in a democratic society, about the closed, self-referential nature of mastery.³¹ Another is a perfectly understandable concern with public finances and an accompanying worry about whether the public is getting adequate value from its investment in public education.³² But by and large, the main reason for the rapid victory and expansion of the Empire of Assessment is the equally rapid emergence and consolidation of a social commitment to specialize (as it were) in the mass production of basic competence, in all domains.

30. *E.g.*, Lee. S. Shulman, *Counting and Recounting: Assessment and the Quest for Accountability*, 39 CHANGE: THE MAG. OF HIGHER LEARNING 20, 24 (2007).

31. *See generally*, Alfred S. Konefsky & Barry Sullivan, *In This, the Winter of our Discontent: Legal Practice, Legal Education, and the Culture of Distrust*, 62 BUFF. L. REV. 659, 738 (2014). Perhaps the quintessential expression of such a view is the 1995 antitrust lawsuit filed by the U.S. Department of Justice against the American Bar Association charging that “legal educators have captured the ABA’s law school accreditation process.” BRIAN Z. TAMANAHA, *FAILING LAW SCHOOLS* 11 (Chicago Series in L. and Soc’y 2012) (quoting from the District Court opinion). For a delightful critique of this critique, see Steven Hales, *Who’s Assessing the Assessors’ Assessors?*, CHRON. OF HIGHER EDUC. (Mar. 11, 2013), <https://www.chronicle.com/article/whos-assessing-the-assessors-assessors/>.

32. *See* CHRIS W. GALLAGHER, *RECLAIMING ASSESSMENT: A BETTER ALTERNATIVE TO THE ACCOUNTABILITY AGENDA* 19-28 (Heinemann 2007); MICHAEL F. MIDDAGH, *PLANNING AND ASSESSMENT IN HIGHER EDUCATION: DEMONSTRATING INSTITUTIONAL EFFECTIVENESS* 109-32 (Jossey-Bass 2010); GREGORY S. MUNRO, *OUTCOMES ASSESSMENT FOR LAW SCHOOLS* 19-21 (Instit. for L. Sch. Teaching 2000).

We see this commitment in, for example, the recently discovered truth that everyone must have a university education,³³ and indeed that a university education is a human right.³⁴ We see it also in the extremely successful efforts by the business community to shift the costs of job training from economic actors to the system of higher education, where the bill for training future workers in basic employability is paid by the public. Firms thus unnecessarily raise their credentialing requirements for entry-level jobs to include a university degree, creating a system in which university graduates are de facto unable to enter the world of work unless universities provide the training in basic employment competence that employers once understood to be their own responsibility.³⁵

Even in law, which, like other professions, was long considered a practice demanding mastery rather than basic competence, a move to mass training in basic competence is openly advocated by enthusiasts of artificial intelligence and automated, do-it-yourself enterprises like Legal Zoom. According to these prognosticators, whom I have no good reason to doubt, the future of the profession is one of two tiers: “bespoke” work for those who can pay and who have a great deal at stake; and basic professional competence for everyone else.³⁶

33. President Obama was a strong advocate of this idea. See Doug Lederman & Paul Fain, *The Higher Education President*, INSIDE HIGHER ED (Jan. 19, 2017), <https://www.insidehighered.com/news/2017/01/19/assessing-president-obamas-far-reaching-impact-higher-education>.

34. See Heidi R. Gilchrist, *Higher Education. as a Human Right*, 17 WASH. U. GLOBAL STUDIES L. REV. 645, 647 (2018).

35. See Doug Lederman, *Credential Creep Confirmed*, INSIDE HIGHER ED (Sept. 9, 2014), <https://www.insidehighered.com/news/2014/09/09/demand-degrees-grows-many-fields-havent-required-them>.

36. See BENJAMIN H. BARTON, *GLASS HALF-FULL: THE DECLINE AND REBIRTH OF THE LEGAL PROFESSION* 6–9, 85–103 (Oxford Univ. Press 2015).

19

Where, then, does that leave us? It appears to leave us with a system in which basically competent people transmit basic competence. Mastery is dropped as superfluous, or perhaps is reclassified as a luxury item restricted to those who can pay for it.

Because mastery is no longer its goal, the education industry devotes ever-increasing effort to figuring out how to make the mass transmission of basic competence more cost-efficient—through distance learning,³⁷ for example, or MOOCs.³⁸ Or through the cheap assembly of a faculty of permanent, itinerant adjuncts,³⁹ because a permanent faculty of masters has an obstreperous habit of wanting to transmit what it knows as though it had some kind of value. Or by dismantling the very idea of a “faculty” as an institution, much less as one charged with designing and implementing a curriculum.⁴⁰ And if these innovations not only de-institutionalize the transmission of mastery but also, as a collateral consequence, dumb down even prevailing conceptions of what counts as basic competence, at least the result, however characterized, is delivered at a reasonable price.

Where does all this leave the community of self-proclaimed and self-validating masters? As my colleague Jack Schlegel, struggling with the same questions, has put it, perhaps all such a community can do is to “dress for dinner”—that is, to maintain with dignity its quaint and

37. See STANDARDS AND RULES OF PROC. FOR APPROVAL OF L. SCHS. § 306 (AM. BAR. ASS'N 2019).

38. A MOOC is a “massive open online course.” See, e.g., Laura Pappano, *The Year of the MOOC*, N.Y. TIMES (Nov. 2, 2012), <https://www.nytimes.com/2012/11/04/education/edlife/massive-open-online-courses-are-multiplying-at-a-rapid-pace.html>.

39. FRANK DONOGHUE, *THE LAST PROFESSORS: THE CORPORATE UNIVERSITY AND THE FATE OF THE HUMANITIES* 56–60 (Fordham Univ. Press 2008).

40. *Id.* at 55–83.

obsolete rituals and practices until the masters and practitioners comprising the community are no longer able; until, that is, we complete the transition to a post-Sisyphean world in which “gravity gets not just the rock but also the pusher.”⁴¹

41. John Henry Schlegel, *To Dress for Dinner: Teaching Law in a Bureaucratic Age*, 66 BUFF. L. REV. 435, 479 (2018).