Of Moby Dick and Tartar Sauce: The Academically Underprepared Law Student and the Curse of Overconfidence

Ruth Vance & Susan Stuart*

"[Over]confidence is going after Moby Dick in a rowboat and taking the tartar sauce with you."¹

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INTRODUCTION

The legal academy and others in higher education know that the academic skills of many of their students are lacking, both at the time of matriculation and at graduation.² Indeed, it has been shown that the learning gained through four years of college is precious

^{*} Valparaiso University Law School. Stuart is currently Associate Dean for Academic Affairs while Vance is Director of Legal Writing. Professor Vance would like to thank Katelyn Holub for her research assistance.

^{1.} Zig Ziglar, THE ZIGLAR WAY, www.ziglar.com/quotes/confidence-going-after-moby-dick-rowboat (last visited Jan. 10, 2015). Insofar as corporate training programs are designed to instill even more confidence in a population that throbs with confidence, one might rightly—albeit indirectly—blame Ziglar for some of the educational problems we are currently experiencing in legal education. The hubris of the business community in "reforming" public education persists despite feedback to the contrary. See, e.g., Alyson Klein, U.S. Chamber of Commerce Steps Up Opposition to GOP NCLB Rewrite, EDUC. WEEK (July 18, 2013), http://blogs.edweek.org/edweek/campaign-k-12/2013/07/us_chaber_of_comerce_steps_u.html.

^{2.} Susan Stuart & Ruth Vance, Bringing A Knife To The Gunfight: The Academically Underprepared Law Student & Legal Education Reform, 48 Val. U. L. Rev. 41, 57–59 (2013).

little for most students.³ This state of affairs has been the norm for the last several years and is verified by objective studies and personal experience.⁴ Hence, many matriculating law students arrive at law school woefully underprepared⁵ at the same time legal educators are challenged with the task of producing practice—ready graduates.⁶

The likely cause of law students' underpreparedness is a unique combination of factors that came together while the Millennial Generation matured. For starters, Millennials' K-12 education was affected by the No Child Left Behind Act7 where teachers taught students to pass standardized tests, and higher education lowered its once rigorous standards, resulting in a significant number of college students graduating without learning the higher-level cognitive skills necessary to deal successfully with complex issues.⁸ Add to that the dawn of the digital age at the Millennials' birth,9 making cell phones, the Internet, and social media necessities of modern life. The ubiquitous habit of multi-tasking¹⁰ was not far behind, bringing with it a shortened attention span¹¹ due to the pruning of brain circuits used for sustained, deep thinking. 12 The pruning of old neural circuitry occurred to make way for the strengthening of the brain circuits used for the quick shifts of attention that enable multitasking.¹³ Finally, Millennials were raised and protected by Baby-Boomer parents and society to avoid failure, 14 have high selfesteem, 15 be confident, 16 and believe that they are special. 17 These

- 3. *Id*
- 4. Stuart & Vance, supra note 2, at 57-59.
- 5. Id. at 41 (citing Roy Stuckey et al., Best Practices for Legal Education: A Vision & a Road Map 8 (2007)).
 - 6. Stuart & Vance, supra note 2, at 46.
 - 7. No Child Left Behind Act of 2001, 20 U.S.C. § 6301 (2006).
 - 8. Stuart & Vance, supra note 2, at 55, 61.
- 9. DAVID I. C. THOMSON, LAW SCHOOL 2.0: LEGAL EDUCATION FOR A DIGITAL AGE 26 (2009).
- 10. Ron Alsop, The Trophy Kids Grow Up: How the Millennial Generation is Shaking Up the Workplace 12 (2008).
 - 11. Id
- $12.\;$ Nicholas Carr, The Shallows: What the Internet is Doing to Our Brains 34 (2010).
 - 13. Id. at 10.
 - 14. Id. at 140.
 - 15. Stuart & Vance, supra note 2, at 66-67.
 - 16. Id. at 62.
- 17. Id. at 62 (citing Jean M. Twenge, Generation Me: Why Today's Young Americans Are More Confident, Assertive, Entitled—and More Miserable Than Ever Before 26 (2006) ("Even the book sponsored by the California Task Force to Promote Self–Esteem and Personal and Social Responsibility . . . found that self–esteem isn't linked to academic achievement, good behavior, or any other outcome the Task Force was formed to address.")); Alsop, supra note 10, at 102.

traits, in turn, have led to Millennials' overconfidence, ¹⁸ high expectations, ¹⁹ and sense of entitlement. ²⁰

The good news is that underprepared law students can learn critical thinking and writing skills; our brains' plasticity makes it possible for anyone to learn new skills.²¹ For those who are willing to put forth the effort, the cognitive skills required for being a successful law student and competent lawyer are attainable. Educators are designing teaching methods to assist these students.²² But what of the subset of underprepared law students who are nonetheless confident they are competent in the requisite skills despite evidence to the contrary? How does one get an overconfident law student to accept critical feedback and learn from it when that student is convinced he needn't change a process that has helped him reap good grades over his lifetime? How do educators inculcate a will to change in a student that is not motivated to change? We don't pretend to have all the answers, but this phenomenon of the extremely overconfident incompetent student23 is something the legal academy has to confront as long as underprepared students keep entering law school.

Realizing that the legal academy is faced with increasing numbers of underprepared law students²⁴ and that we must bring those students "up to speed" if we are to graduate practice—ready lawyers, means that we must gain an understanding of the reasons that

^{18.} Stuart & Vance, supra note 2, at 63 (citing Jean M. Twenge & Stacy M. Campbell, Generational Differences in Psychological Traits and Their Impact on the Workplace, 23 J. MANAGERIAL PSYCHOL. 862, 866 (2008)); Stuart & Vance, supra note 2, at 68 n.179, 182).

^{19.} See infra text accompanying notes 71-74.

^{20.} Stuart & Vance, supra note 2, at 66, 67.

^{21.} Id. at 78-80; MedicineNet, Definition of Neuroplasticity, http://www.medicinenet.com/script/main/art.asp?articlekey=40362 (last visited Nov. 3, 2014).

Neuroplasticity is "[t]he brain's ability to reorganize itself by forming new neural connections throughout life. Neuroplasticity allows the neurons (nerve cells) in the brain to compensate for injury and disease and to adjust their activities in response to new situations or to changes in their environment. Brain reorganization takes place by mechanisms such as "axonal sprouting" in which undamaged axons grow new nerve endings to reconnect neurons whose links were injured or severed. Undamaged axons can also sprout nerve endings and connect with other undamaged nerve cells, forming new neural pathways to accomplish a needed function.

Id.

^{22.} See, e.g., Robin A. Boyle, Employing Active—Learning Techniques and Metacognition in Law School: Shifting Energy from Professor to Student, 81 U. Det. Mercy L. Rev. 1 (2003); Hillary Burgess, Deepening the Discourse Using the Legal Mind's Eye: Lessons from Neuroscience and Psychology that Optimize Law School Learning, 29 QUINNIPIAC L. Rev. 1 (2011); Joan Catherine Bohl, Generations X and Y in Law School: Practical Strategies for Teaching the "MTV/Google" Generation, 54 Loy. L. Rev. 775 (2008); Deborah J. Merritt, Legal Education in the Age of Cognitive Science and Advanced Classroom Technology, 14 B.U. J. Sci. & Tech. L. 39 (2008).

^{23.} See infra text accompanying footnotes 95-108.

^{24.} Stuart & Vance, supra note 2, at 61.

many law students are underprepared. This understanding includes their cultural background; the neurological underpinnings of learning, unlearning, and critical thinking;²⁵ and the psychological phenomenon of overconfidence known as the Dunning-Kruger effect²⁶ in order to determine the best means of educating this group. Part I of this Article reviews the several reasons many of today's law students are underprepared and describes the traits of the Millennial generation, the largest group of current law students, and goes on to show how their traits of feeling special, entitled, and confident can lead to narcissism, high expectations, and overconfidence.²⁷ Part II delves deeper into the trait of overconfidence by exploring the Dunning-Kruger effect, namely that "overconfidence in one's skills [is] often a hallmark of the incompetent"28 and its relationship to underprepared law students.²⁹ Finally, Part III shares strategies to help those individual students exhibiting the overconfidence-incompetence phenomenon and the institutional changes that would help law students become better self-evaluators and more competent law students and future lawyers.³⁰

I. THE GENESIS OF THE PROBLEM: "IGNORANCE IS BLISS"31

Various data show a decline in the academic skills of American youth. Their skills also fall far below those of youth from other countries. The Department of Education issued a report in 2007 showing that students' scores in reading to perform a task, to gather information, and to experience literature fell from 1992 to 2005.³² The largest decline, twelve percent, was in aptitude for literary reading.³³ Other studies conclude that many high school students cannot "synthesize or assess information, express complex thoughts, or analyze arguments."³⁴ Sixty percent of American fifteen—year—olds score at or below the most basic level of problem—

^{25.} See generally Stuart & Vance, supra note 2, at 75–80, n.253–99 (suggesting that intense training in reasoning skills will rewire the brain to sustain the focus necessary for deep thinking and problem–solving). How the brain can be retrained to enable the mastery of skills needed for success as a law student and as a practicing lawyer is left for a future article.

^{26.} See infra Parts II and III.

^{27.} See infra text accompanying footnotes 31-94.

^{28.} See infra text accompanying footnote 105.

^{29.} See infra text accompanying footnotes 137–180.

^{30.} See infra text accompanying footnotes 181–229.

^{31.} Thomas Gray, Ode on a Distant Prospect of Eton College (1742), available at www.thomasgray.org/cgi-bin/display.cgi?test=odec.

^{32.} CARR, *supra* note 12, at 146.

^{33.} *Id*.

^{34.} Maggie Jackson, Distracted: The Erosion of Attention & the Coming Dark Age 18 (2008) (citing H. Persky, M. Daane & Y. Jin, *The Nation's Report Card: Writing 2002* at 11, 19, 21); U.S. Dept. of Educ., Inst. of Educ. Sci., 2003, available at

solving,³⁵ while all American fifteen–year–olds rank twenty–fourth out of twenty–nine developed countries.³⁶ American parents, employers, and leaders lament this situation. Sociologists, psychologists, educators, and scientists have tried to determine why young Americans' academic skills have been in free fall.

The Millennials are products of this American education system and teachers who "taught to the test" so that their students could meet the short–term goal of passing the standardized tests mandated by the No Child Left Behind Act.³⁷ Teachers no longer had time to teach fundamental critical thinking, writing, and problem—solving skills.³⁸ The majority of state–approved standardized tests still focus on factual knowledge, not mastery of fundamental skills.³⁹ Most primary and secondary education does not instill "a love of learning for learning's sake,"⁴⁰ which would supply the motivation to dig deeper into sources to understand complex ideas.

Additionally, the decline in academic skills from 1992 to 2005 occurred at about the same time public schools introduced computers into the classroom.⁴¹ Millennial students used computers as early as kindergarten.⁴² A few years later, they were taught to use online resources instead of books.⁴³ Growing up as digital natives, however, does not guarantee that all Millennials are digitally literate.⁴⁴ Experts blame the high use of computers, other digital media, and

http://nces.ed.gov/nationsreportcard/pdf/main2002/2003529.pdf); COLLEGE READINESS, CRISIS AT THE CORE: PREPARING ALL STUDENTS FOR COLLEGE AND WORK 3, 24 (2005), available at http://www.act.org/research/policymakers/pdf/crisis_report.pdf.

- 35. Jackson, supra note 34, at 18. "[T]he most basic level of problem—solving . . . [involves] using single sources of well—defined information to solve challenges such as plotting a route on a map." *Id.* (citing Organization of Economic Co-operation & Development, Problem Solving for Tomorrow's World 40–42, 47, & 144 (2004), *available at* http://www.oecd.org/dataoecd/25/12/34009000.pdf.
- 36. Id. at 18. "[United States] fifteen-year-olds rank twenty-fourth out of twenty-nine developed countries on an Organization for Economic Cooperation and Development (OECD) test of problem-solving skills related to analytic reasoning—the sort of skills demanded in today's workforce." Id.
 - 37. No Child Left Behind Act of 2001, 20 U.S.C. § 6301 (2006).
- 38. RICHARD P. KEELING & RICHARD H. HERSH, WE'RE LOSING OUR MINDS: RETHINKING AMERICAN HIGHER EDUCATION 84 (2012).
 - 39. Id
- 40. RICHARD ARUM & JOSIPA ROKSA, ACADEMICALLY ADRIFT: LIMITED LEARNING ON COLLEGE CAMPUSES 126–27 (2011).
- 41. Thomson, *supra* note 31, at 26–27; Interview with Katelyn Holub, Millennial, in Valparaiso, Ind. (Oct. 8, 2014) (interviewee started kindergarten in 1994 in the Valparaiso, Ind. Public Schools and had access to computers in one of the classroom learning centers) (notes on file with author).
 - 42. Id.
- 43. Carr, supra note 12, at 92–93. "Public schools are pushing students to use online reference materials in place of [books]." Id.
- 44. Stuart & Vance, *supra* note 2 at 64 (citing DAVID I. C. THOMSON, LAW SCHOOL 2.0: LEGAL EDUCATION FOR A DIGITAL AGE 14, 28 (2009)).

multi–tasking for the decline in students' academic skills. ⁴⁵ Nearly one—third of students, ages fourteen to twenty—one, attend five to eight open media sites while doing their homework. ⁴⁶ Multitasking is not really concentrating on several things at once. What these students are doing is switching their attention quickly, which "saps attention from full, concentrated engagement." ⁴⁷ No wonder students are losing or missing skills in critical reading, critical thinking, and problem—solving. ⁴⁸

Trying to multitask comes with "switch costs," 49 including the time it takes for the brain to change its goals, come up with the rules needed for the new goal, and block out thoughts regarding old tasks.⁵⁰ Studies on workers of all ages show that multi-tasking takes a huge toll on productivity.⁵¹ A year-long study found that workers switch tasks every three minutes, and that workers interrupt themselves to switch tasks about half the time.⁵² Workers only spend an average of eleven minutes on a project until they switch to another project; within a project, workers change tasks approximately every three minutes.⁵³ Furthermore, it takes about twentyfive minutes after a distraction before returning to the original task, and during that time two other projects usually disrupt attention.⁵⁴ Those who are adept at the quick switching demanded by multitasking, most of whom are Millennials, may be proficient at routine tasks such as keeping up with smart-phones, iPads, laptops, Facebook, texting, and other social media, but cannot competently handle work that requires focus, deep thinking, or critical analysis.55

^{45.} Jackson, *supra* note 34, at 18 (citing Victoria Rideout & Donald Roberts, Generation M: Media in the Lives of Eight to Eighteen-Year-Olds 6, 23 (2005)). *But cf.* Cathy N. Davidson, Now You See It: How the Brain Science of Attention Will Transform the Way We Live, Work, and Learn (2011). Head of creativity at Mozilla, Aza Raskin, says that multi-tasking is not new; it is the same as "lassoing an injured bull in the field and keeping track of an infant and toddler while making dinner." *Id.*

^{46.} JACKSON, supra note 34, at 18.

^{47.} DANIEL GOLEMAN, FOCUS: THE HIDDEN DRIVER OF EXCELLENCE 19–20 (2013).

^{48.} JACKSON, supra note 34, at 22.

^{49.} Id. at 79.

^{50.} *Id*

^{51.} *Id.* at 17, 79, 80, 84–85; *see* ALSOP, *supra* note 10, at 154. A study by Microsoft found that frequent distractions from the main task hurt productivity and that their workers took from ten to fifteen minutes to return to their main task of writing reports or computer code after being interrupted by email. *Id.*

^{52.} Jackson, *supra* note 34, at 17 (citing Gloria Mark, Victor Gonzalez & Justin Harris, *No Task Left Behind? Examining the Nature of Fragmented Work, PROCEEDINGS OF THE CONFERENCE ON HUMAN FACTORS IN COMPUTER SYSTEMS* 321–330 (2005).

^{53.} Id. at 84-85.

^{54.} Id. at 85.

^{55.} ALSOP, *supra* note 10, at 12, 153.

Experts believe that multitasking has produced a shortened attention span.⁵⁶ Those with short attention spans become bored and easily distracted.⁵⁷ The skills needed for success in the workplace and higher education demand longer attention spans.⁵⁸ Further impeding critical analysis is the fact that the average person can only focus on a few things at a time.⁵⁹ Working memory's small capacity corroborates the opinion that the brain was not meant for multitasking.⁶⁰ The brain's abilities for multitasking and deep thinking are neither good nor bad, they are just a fact of life.⁶¹ It is important to understand the brain's processes and how it is affected by what one asks of it, so law students may be taught more effectively.⁶²

Without practice in focusing on deep thoughts, complex issues, and communicating them, many high school graduates arrive at college underprepared for the traditional college curriculum that moves on to "higher–order critical thinking and complex reasoning." Ever more underprepared college students must take remedial courses. Despite the remedial coursework, most college students graduate without learning the critical thinking, analysis, and writing skills that used to be the hallmark of a college education. They may learn some factual knowledge and be able to repeat it on exams, but they soon forget those facts and never really master higher–order thinking. Despite this shallow thinking, most students graduate with high grades. Historical data reveals that students are not putting in the necessary study time for such high

^{56.} Id. at 12, 37, 153.

^{57.} Id. at 153.

^{58.} *Id.* at 12. Texting has lowered writing and interpersonal communication skills. *Id.* at 153. People with short attention spans cannot do their best work on tasks that require focus, critical analysis, or deeper thinking. *Id.* at 154. A University of Oregon study involving lab experiments with eighteen—to thirty—year—olds found they could hold only four items in active memory. *Id.*

^{59.} Id. at 154.

^{60.} Id.

^{61.} THOMSON, supra note 31, at 39.

^{62.} Id.

^{63.} ARUM & ROKSA, supra note 40, at 126.

^{64.} Id. at 126 (citing Clifford Adelman, The Toolbox Revisited: Paths to Degree Completion from High School Through College 34 WASH D.C.: U.S. DEPT. OF EDUC. (2006) (one—third of recent four—year college students took at least one remedial course in college.")).

^{65.} *Id.* at 18. A 2006 study by the United States Department of Education found that "the quality of student learning at U.S. colleges and universities is inadequate, and in some cases, declining." (citing U.S. DEPARTMENT OF EDUCATION, A TEST OF LEADERSHIP: CHARTING THE FUTURE OF U.S. HIGHER EDUCATION 3 (2006)); KEELING & HERSH, *supra* note 38, at 38 (reporting that "a 2007 National Center for Education Statistics study found that only 31% of college graduates could read a complex book and take away lessons or messages from the text").

^{66.} KEELING & HERSH, supra note 38, at 9.

^{67.} Id. at 9, 36.

grades. From the 1920s to the early 1960s students averaged forty hours of academic activities per week.⁶⁸ Currently, full–time college students only average twenty–seven hours per week on those activities.⁶⁹

Now, the college years are more focused on social integration than on academics.⁷⁰ The majority of college professors no longer create high expectations for their students.⁷¹ They have succumbed to student complaints of not being able to concentrate on reading long texts, giving them book excerpts, essays, and short articles instead.⁷² Higher education researcher, George Kuh, has found that students and professors make a silent "disengagement compact"⁷³ where students are not required to put in much effort to get decent grades⁷⁴ and professors do not have as much grading or the unenviable task of explaining why some of their students did not master the material and consequently failed or received low grades.⁷⁵

Even though many college students lack the self–discipline to study sufficiently,⁷⁶ they have very high expectations for their careers. For instance, almost half the starting athletes at Division I colleges believe they will play in the NFL or the NBA, when "less than two percent ever receive as much as a tryout and many fewer last a single season." ⁷⁷ Architect students who aspire to be as famous as Frank Gehry or I.M. Pei are being unrealistic when few architects will ever be the primary designer of a private home, and fewer still will design multiple public buildings.⁷⁸ Millennial college students may have high expectations for their professional lives, but most of them do not know what steps they need to take to reach their goals.⁷⁹ Some of these college graduates find their way to law

^{68.} ARUM & ROKSA, supra note 40, at 3.

^{69.} *Id.*; KEELING & HERSH, *supra* note 38, at 36 (stating that ten to fifteen hours a week spent on homework gets students Bs or higher in courses).

^{70.} ARUM & ROKSA, supra note 40, at 31.

^{71.} KEELING & HERSH, supra note 38, at 35–36.

⁷². ALSOP, supra note 12, at 155 (explaining how Millennials resist reading long assigned texts from professors).

^{73.} ARUM & ROKSA, supra note 40, at 5.

^{74.} Id. at 5. Decent grades are Bs or higher. Id.

^{75.} Ic

^{76.} DEREK BOK, OUR UNDERACHIEVING COLLEGES: A CANDID LOOK AT HOW MUCH STUDENTS LEARN & WHY THEY SHOULD BE LEARNING MORE 306 (2006) (stating that students lack self—discipline because they receive above—average grades for sloppy work and no penalties for not following directions).

^{77.} Id. at 285.

^{78.} Id. at 285–86.

^{79.} ARUM & ROKSA, supra note 40, at 126.

school not much better prepared than they were when they arrived at college.⁸⁰

For whatever reason, be it colleges that do not provide the necessary teaching, or students who are unable or unwilling to put forth the necessary effort to learn, many college students gain nothing more than a cursory knowledge of a particular field of study.⁸¹ Students, for the most part, do not graduate with any fundamental problem—solving or writing skills⁸² that they can transfer to the study of law. Yet, these law students firmly believe, perhaps based on their inflated grades and their unmerited "trophies," that their career expectations will be met.⁸³ Perhaps explained by the Dunning—Kruger effect,⁸⁴ they believe their academic skills are better than they are.

Because they have experienced academic success thus far with minimal effort, they believe the same amount of effort should continue to yield success in law school. When minimal effort does not yield success, it must be because their instructor failed to teach them. Students probably never thought of learning as a joint effort between professor and student. The kind of deep thinking and analysis necessary in law school is not possible without focused attention for a sustained time period. That kind of attention is antithetical to the disruptions and quick thinking students are used to in this digital age. St

^{80.} All law students are not underprepared, but a surprising number are. Of those underprepared law students, some understand they need to change their study habits to succeed and are willing to do so. However, the remaining students do not see why they need to change their study habits because their methods yielded success in college. These law students resist changing and working harder. They have attitudinal problems and, having been told they were special for years, they are convinced the problem lies outside themselves.

^{81.} KEELING & HERSH, supra note 38, at 9.

^{82.} *Id.* at 38. "The American Institutes for Research (AIR) found that 75 percent of two-year college students and 50 percent of four-year college students did not perform at proficient levels of literacy on tasks such as summarizing competing arguments in newspaper editorials or comparing competing credit card offers with differing interest rates." *Id.*

^{83.} See supra text accompanying footnotes 38–42.

^{84.} See infra text accompanying footnotes 96–139.

^{85.} CARR, *supra* note 12, at 141.

^{86.} Bok, *supra* note 76, at 305–06. "There seems to be a breakdown of shared responsibility for learning—on the part of faculty members who allow students to get by with far less than maximal effort, and on the part of students who are not taking full advantage of the resources institutions provide." *Id.* (citing George D. Kuh, *What We're Learning About Student Engagement from NSSE*, 35 CHANGE 28 (March–April 2003).

^{87.} CARR, *supra* note 12, at 141.

^{88.} See supra text accompanying notes 16-18.

Indeed, we do live in a distracted society that is constantly moving and multitasking, losing the ability to distinguish what is relevant from what is not.89 The distractions result in "losing our capacity to create and preserve wisdom and slipping toward a time of ignorance that is paradoxically born amid an abundance of information and connectivity."90 Some believe that we are headed toward a dark age.⁹¹ Despite all the connections made possible through technology, one-fourth of Americans say they do not have a confidant, which is twice that of twenty years ago.92 With all the information on the Internet, half of American eighteen-to twentyfour-year-olds cannot find New York State on a map.93 Employers lament that "young workers are less and less able to concentrate, think deeply, or mine a vein of inquiry."94 Several factors have likely worked together to cause the decline in academic skills: elementary and secondary educators teaching knowledge rather than foundational thinking and writing skills; colleges focusing more on social adjustment than on academics; Millennials' heavy use of the Internet and social media; and the Millennial traits of being special and confident. Besides the decline of academic skills, the generally positive traits of being special and confident have been taken to the extreme by Millennials, creating a focus on self to the point of narcissism and overconfidence.

II. THE PROBLEM: "ALL YOU NEED IS IGNORANCE AND CONFIDENCE, AND THEN SUCCESS IS SURE."95

One of the more exasperating features of the academically underprepared student, particularly the academically underprepared Millennial student, is her overweening sense that she is more competent than she really is. A number of cultural and social factors are in play in feeding that overconfidence, much of it derived from the generational culture previously described, such as her egocentrism and her narcissism. She has also long been told that she is a consumer—student who is competent enough to determine whether or not she is being taught according to her own tastes and perceived

^{89.} Jackson, supra note 34, at 14.

^{90.} Id. at 16.

^{91.} Id. at 15.

^{92.} Id. at 22.

^{93.} Id. at 22 (citing Miller McPherson, Matthew Brashears & Lynn Smith–Loven, Social Isolation in America: Changes in Core Discussion Networks over Two Decades, 71 Am. Soc. Rev. 353–75 (2006).

^{94.} JACKSON, supra note 34, at 19.

^{95.} Archive of Mark Twain Quotes, WWW.TWAINQUOTES.COM, www.twainquotes.com/Success.html (last visited Dec. 13, 2014).

needs.⁹⁶ Perhaps just as important is her social motivation to be overconfident because it signals to society that one is competent.⁹⁷ But therein lies the rub: overconfidence and competence are inversely related. The overconfident student is usually less competent, and her overconfidence makes her unable to recognize her incompetence and thereby limits her ability to improve her performance.⁹⁸ Significant empirical evidence supports this conclusion.

In 1999, psychologists David Dunning and Justin Kruger conducted four studies on Cornell University students that examined this inverse relationship of overconfidence to incompetence, specifically to test the hypothesis that "incompetent individuals have more difficulty recognizing their true level of ability than do more competent individuals."99 These studies assessed students' ability to accurately estimate their performance on tests of humor, logical reasoning, and English grammar, 100 to measure whether or not "incompetence . . . not only causes poor performance but also the inability to recognize that one's performance is poor."101 Dunning and Kruger's studies revealed several conclusions regarding the relationship of confidence and competence. First, test subjects in the bottom quartile of each of the studies overestimated both their performance and their quartile placement, thinking themselves above average. 102 Second, bottom-quartile performers were less proficient at distinguishing between correct and incorrect answers. 103 Third, bottom-quartile performers were less able to discern the difference between superior and inferior performance of their peers. 104 Fourth, improving metacognitive skills improved the recognition of incompetence, leading to the conclusion that "one way to make people recognize their incompetence is to make them competent."105 Perhaps what puzzled Dunning and Kruger the most was how little

^{96.} Catherine J. Wasson & Barbara J. Tyler, How Metacognitive Deficiencies of Law Students Lead to Biased Ratings of Law Professors, 28 Touro L. Rev. 1305, 1316 (2012); see also Tracy Vaillancourt, Students Aggress Against Professors in Reaction to Receiving Poor Grades: An Effect Moderated by Student Narcissism and Self-Esteem, 39 AGGRESSIVE BEHAV. 71, 81 (2013) ("[S]tudents [are] much more focused on the grades they received, and how those grades [are] justified by the instructor seem[s] inconsequential.").

^{97.} Cameron Anderson et al., A Status–Enhancement Account of Overconfidence, 103 J. Personality & Soc. Psychol. 718, 730 (2012).

^{98.} Justin Kruger & David Dunning, Unskilled and Unaware of It: How Difficulties in Recognizing One's Own Incompetence Lead to Inflated Self-Assessments, 77 J. PERSONALITY & Soc. PSYCHOL. 1121, 1121 (1999).

^{99.} Id. at 1122.

^{100.} Id.

^{101.} Id. at 1130.

^{102.} Id.

^{103.} Id. at 1131.

 $^{104. \}quad Id.$

^{105.} Id.

the incompetent failed to learn from feedback and, more specifically, "how the incompetent fail, through life experience, to learn that they are unskilled." Thus, the Dunning–Kruger effect was born, the proposition that overconfidence in one's skills is often a hallmark of the incompetent. Later studies support Kruger and Dunning's work, contributing additional nuances to its broad conclusions as well as exploring the dilemmas posed by the overconfidence–incompetence dichotomy, especially in academic performance. Later studies are performance.

For example, a later series of five studies substantiated the basic proposition that incompetent performers do not have the skills to recognize their own deficiencies and thereby tend to overestimate their performance. Those participants were also college students engaged in a variety of tasks in which they would be variously measured for their skill and their ability to accurately self—assess. The researchers specifically tested three possible explanations for overconfidence in poor performers: it is an artifact of experimental methodology and statistics; poor performers are not motivated to be accurate in their self—assessments; and poor performers are unable to distinguish between strong and weak performance. The studies tasks included taking a difficult in—class examination; self—evaluating debate tournament performance; partic-

^{106.} *Id*.

^{107.} On the other hand, top performers tend to have less confidence in their abilities and therefore underestimate their performance. "Simply put, these participants assumed that because they performed so well, their peers must have performed well likewise." Id. at 1131. 108. E.g., Richard H. Gramzow et al., Self-Evaluation Bias and Academic Performance: Some Ways and Some Reasons Why, 37 J. RES. IN PERSONALITY 41, 55-57 (2003); Christopher Merkle & Martin Weber, True Overconfidence: The Inability of Rational Information Processing to Account for Apparent Overconfidence, 116 Organizational Behav. & Hum. DECISION PROCESSES 262, 269-70 (2011); Trevor T. Moores & Jerry Cha-Jan Chang, Self-Efficacy, Overconfidence, and the Negative Effect on Subsequent Performance: A Field Study, 46 INFO. & MGMT. 69, 74-75 (2009); Thomas Schlösser et al., How Unaware Are the Unskilled? Empirical Tests of the "Signal Extraction" Counterexplanation for the Dunning-Kruger Effect in Self-Evaluation of Performance, 39 J. Econ. Psychol. 85, 97 (2013). But see Phillip L. Ackerman et al., What We Really Know about Our Abilities and Our Knowledge, 33 PERSONALITY & INDIVIDUAL DIFFERENCES 587, 603 (2002) (concluding that when test subjects' self-assessment are based on specific stimuli and an absolute scale their predictions are more likely to match their actual performance); Marian Krajc & Andreas Ortmann, Are the Unskilled Really that Unaware? An Alternative Explanation, 29 J. ECON. PSYCHOL. 724, 730, 736 (2008) (concluding that the unskilled are not overconfident but that their lack of skill makes estimating their abilities much more difficult in comparison to their more skilled peers).

^{109.} Joyce Ehrlinger et al., Why the Unskilled Are Unaware: Further Explorations of (Absent) Self–Insight among the Incompetent, 105 Organizational Behav. & Hum. Decision Processes 98, 98 (2008).

^{110.} Id. at 101.

^{111.} Id. at 117.

ipating in a Trap and Skeet competition in exchange for \$5; completing a logical reasoning test for \$100; and completing a logical reasoning test with an accountability manipulation. The researchers' results supported the third explanation—the poor performers' inability to distinguish strong and weak performance—and that Dunning and Kruger's conclusions were accurate: "a lack of skill leaves individuals both performing poorly and unable to recognize their poor performances." Indeed, poor performers have little insight into their deficits relative to their peers and evince dramatic overconfidence in their abilities, despite having received clear and repeated feedback to the contrary.

Kruger and Dunning's puzzle about the failure of the unskilled to use feedback to improve their performance also has been re-The overconfidence of less skilled competitive bridge searched. players persisted despite their knowledge of the subject domain and feedback on their performance. 115 A comparison of examination scores taken four weeks apart in a systems analysis and design course revealed that poor performers' overconfidence persisted, but their performance did not improve despite feedback between the examinations designed to do so. 116 In three studies of masters-level students' managerial skills, poor performers showed an inverse relationship between their perceived emotional intelligence and their actual skill, demonstrating little insight into their serious deficiencies and indeed resentment at receiving negative feedback. 117 Unfortunately, while the empirical evidence offers overwhelming support for Dunning and Kruger's inverse relationship of confidence to competence, the source of the barrier between overconfidence and feedback is still somewhat of a mystery.

^{112.} Id. at 103, 105, 108, 110, 112.

^{113.} Id. at 117.

^{114.} Id. at 118–19. A different study revealed that unskilled medical laboratory technicians did not recognize incompetence performance of skills they used every day in the lab. Id. at 118. Likewise, a small study of nursing students revealed the inverse relationship of confidence to competent performance in a simulated crisis situation, calling into question the value of self–assessments in nursing education. Pamela Baxter & Geoff Norman, Self–Assessment or Self Deception? A Lack of Association Between Nursing Students' Self–Assessment and Performance, 67 J. ADVANCED NURSING 2406, 2411 (2011). Similarly, less competent third–year medical students could assess neither the quality of their own performance nor that of their peers. Vicki Langendyk, Not Knowing that They Do Not Know: Self–Assessment Accuracy of Third–Year Medical Students, 40 MED. EDUC. 173, 173 (2006).

^{115.} Daniel J. Simons, Unskilled and Optimistic: Overconfident Predictions Despite Calibrated Knowledge of Relative Skill, 20 PSYCHONOMIC BULL. REV. 601, 605 (2013).

^{116.} Moores & Chang, supra note 108, at 74.

^{117.} Oliver J. Sheldon et al., Emotionally Unskilled, Unaware, and Uninterested in Learning More: Reactions to Feedback about Deficits in Emotional Intelligence, 99 J. APPLIED PSYCHOL. 125, 133 (2014).

Dunning and Kruger's original studies suggest that poor performers' lack of metacognitive skills is that barrier. 118 In the fourth task of their original studies, the participants were first administered a logic test based on the Wason selection task then asked to estimate their performance. 119 Then half the participants were trained to improve their logical reasoning skills after which all the participants were asked to indicate which problems they answered correctly and incorrectly. Last, the subjects again rated their ability and performance. 120 The bottom-quartile performers who received training were just as accurate in the self-assessment of their test performance as the top-quartile performers although the impact of the training on their self-assessments depended upon their initial performance. 121 While the training did not completely eliminate the poor performers' overestimation of their performance, their estimations were better calibrated. 122 Thus, although evidence suggests that poor performers are somewhat aware of their own ineptitude, 123 they still tend to be resistant to feedback. 124

This resistance to feedback may be overconfidence itself. "Generally, overconfidence is defined as inaccurate, overly positive perceptions of one's abilities or knowledge . . . [It] is a genuine yet flawed perception of one's own abilities." Overconfidence seems greater in those who score below average than those who score above average. And overconfidence in one's own judgment and knowledge—based tasks wanes with easy tasks—where one's ability to self—monitor is easier—while it tends to run rampant with hard

^{118.} Kruger & Dunning, supra note 98, at 1128.

^{119.} The Wason selection task works as follows: "Each problem described four cards (e.g., A, 7, B and 4) and a rule about the cards (e.g., "If the card has a vowel on one side, then it must have an odd number on the other"). Participants then were instructed to indicate which card or cards must be turned over in order to test the rule," here A and 4. *Id.* at 1128.

^{120.} Id.

^{121.} Id. at 1128-29.

^{122.} Id. at 1129.

^{123.} Tyler M. Miller & Lisa Geraci, Unskilled But Aware: Reinterpreting Overconfidence in Low-Performing Students, 37 J. EXPERIMENTAL PSYCHOL. 502, 505 (2011).

^{124.} E.g., Briony D. Pulford & Andrew M. Colman, Overconfidence: Feedback and Item Difficulty Effects, 23 Personality & Individual Differences 125, 132 (1997); see Myron H. Dembo & Helena Praks Seli, Students' Resistance to Change in Learning Strategies Courses, 27 J. Developmental Educ. 2, 3–5 (2004).

^{125.} Anderson et al., *supra* note 97, at 719. "The more confident people are, the more overconfident they are, and, overall, confidence tends to exceed accuracy." Joshua Klayman et al., *Overconfidence: It Depends on How, What, and Whom You Ask*, 79 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 216, 217 (1999).

^{126.} E.g., John Dunlovsky & Katherine A. Rawson, Overconfidence Produces Underachievement: Inaccurate Self Evaluations Undermine Students' Learning and Retention, 22 LEARNING & INSTRUCTION 271, 276 (2012); Anastasia Efklides, How Does Metacognition Contribute to the Regulation of Learning? An Integrative Approach, 23 PSYCHOL. TOPICS 1, 9–10 (2014); Miller & Geraci, supra note 123, at 505.

tasks.¹²⁷ The sad fact is that overconfidence itself breeds continued underachievement by seducing students to terminate their studies prematurely, leading them to retain less knowledge and thereby feeding the vicious cycle of continued poor performance.¹²⁸ Overconfidence, however, remains unshakable despite that continued poor performance.

One explanation is that people are not especially "adept" at judging their own limitations, be it lack of knowledge or lack of skills. 129 People tend to have a "top-down" perception of their abilities with a starting point that is overinflated and unjustifiable. 130 Poor performers' overinflated and unjustifiable perceptions are also based on their lack of awareness—or even acceptance—of their deficits, ¹³¹ perhaps fueled by their desire to enhance their own view of themselves. Underlying such self-enhancement are processes that include wishful thinking, egocentrism, and "self-serving resolutions of ambiguity."132 The overconfident poor performer possesses an over-optimism that does not comport with reality. 133 Such overconfidence especially fuels over-optimism about poor performers' "talents, expertise, and future prospects."134 In crude terms, poor performers—as do most people—want to believe themselves above average. 135 "[P]eople say they are 'above average' in skill (a conclusion that defies statistical possibility), overestimate the likelihood that they will engage in desirable behaviors and achieve favorable out-

^{127.} Klayman et al., *supra* note 125, at 217. On the other hand, poor performers may improve their confidence levels if their past performance on difficult knowledge tasks is viewed as a reliable predictor of future performance or even to save face. Pulford & Colman, *supra* note 124, at 132. When performance is measured against the competition in skill–based tasks, empirical evidence suggests that confidence recedes when the tasks become more difficult. Don A. Moore & Daylian M. Cain, *Overconfidence and Underconfidence: When and Why People Underestimate (and Overestimate) the Competition*, 103 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 197, 207 (2007).

^{128.} Dunlovsky & Rawson, *supra* note 126, at 277. Unfortunately, "[w]hen [college] students are left to their own devices, many of them use ineffective methods to monitor their learning, which can produce overconfidence and underachievement." *Id.* at 278.

^{129.} David Dunning et al., Why People Fail to Recognize Their Own Incompetence, 12 CURRENT DIRECTIONS IN PSYCHOL. Sci. 83, 83 (2003).

^{130.} Id. at 86.

^{131.} Id.

^{132.} Elanor F. Williams & Thomas Gilovich, *Do People Really Believe They Are Above Average*?, 44 J. EXPERIMENTAL SOC. PSYCHOL. 1121, 1126 (2008).

^{133.} Id

^{134.} David Dunning et al., Flawed Self-Assessment: Implications for Health, Education, and the Workplace, 5 PSYCHOL. SCI. PUB. INT. 69, 71 (2004) [hereinafter Flawed Self-Assessment].

^{135.} Id. at 69.

comes, furnish overly optimistic estimates of when they will complete future projects, and reach judgments with too much confidence." ¹³⁶

However, success in law school depends upon accurate self–assessment at the individual level—not overconfidence in one's placement in the general population—because accurate self–assessment "is especially crucial in higher education and professional school settings, particularly as some schools move to a problem–based or case–based model of instruction." In particular, law students must be able to self–assess accurately in order to be autonomous agents of their own learning "An essential component of problem–based learning is that students must identify what skills they need to acquire and what knowledge they must gain—in short, they must make correct self–assessments of strengths and deficits." That leaves the conundrum of persuading the overconfident law student to become competent through the mechanism of feedback, which their overconfidence inclines them to resist.

III. ADDRESSING THE PROBLEM: "CONFIDENCE IS THE ILLUSION BORN OF ACCIDENTAL SUCCESS." 140

Teaching the overconfident law student to become competent is not as simple as identifying a one—size—fits—all methodology. If we accept Dunning and Kruger's basic proposition that teaching the necessary skills to poor performers will improve both their self—assessment and their performance, then we necessarily start with metacognition as a key intellectual skill necessary for success in law school. "Metacognition refers to the self—monitoring by an individual of his own unique cognitive processes." ¹⁴¹ Metacognition is critical to advancing to skills basic to being a lawyer, critical thinking and problem solving. However, the overconfident do not have the predisposition to self—assessment that would make them skilled at

^{136.} Id.

^{137.} Id. at 85.

^{138.} Id.

^{139.} Id.

^{140.} Thomas à Kempis, QUOTE COLLECTION, http://www.quotecollection.com/author/thomas-kempis/2/ (last visited Jan. 10, 2015).

^{141.} Anthony S. Niedwiecki, Lawyers and Learning: A Metacognitive Approach to Legal Education, 13 WIDENER L. REV. 33, 35 (2006). "Generally, metacognition refers to having both awareness and control over one's learning and thinking. Specifically, learners must have awareness over what they bring to the learning experience, such as their own cognitive abilities, learning styles, and learning preferences." Id.

metacognition. Furthermore, an increasing number of students enter law school without the intellectual skills that are foundational for the more advanced metacognitive skills needed to become lawyers. The overconfident are especially problematic because they not only resist engaging in a classroom that uses metacognitive techniques, they resist learning those skills despite feedback and indisputable proof of their incompetence. Given these conditions, success at reaching some overconfident students may be difficult and will be dependent upon the confluence of both the individual student and the institutional practices.

A. The Student

A deeper exploration of an individual's tendency to be overconfident—in the face of continued poor performance—is crucial for reaching and teaching that individual to become competent. One basic conclusion from Dunning and Kruger's initial studies is that the incompetent are simply unaware of their incompetence. However, other psychological explanations may account for the overconfidence phenomenon besides unawareness.

Take for instance the overconfident poor performer who has some skills but "gambles" that, the next time, things will be different and she really will perform well despite feedback to the contrary. 142 Such "unmerited optimism" may actually be a motivating factor to continue in a particular endeavor as the poor performer experiences "a gambler's fallacy, a belief that [he] is *due* for a good night." Related to that optimism is the poor performer's tendency to rely less on one's past actual performance and to rely more on one's own aspirations for future performance. 144

Poor performers' overconfidence may also be engendered by decision consistency. Last Confidence is distinctly linked with consistency in decisional processes, even more so than with accuracy in those decisions. Confidence wanes when different rules may suggest different conclusions. In a study of political "experts," those with a grand, overarching theory—the "hedgehogs"—tended to be more

^{142.} Simons, supra note 115, at 606.

^{143.} Id.

^{144.} *Id. But see* Pulford & Colman, *supra* note 124, at 132 (opining that, if past performance is viewed as a valid predictor of future performance on hard tasks, poor performers may better calibrate their predictions).

^{145.} Elanor F. Williams et al., *The Hobgoblin of Consistency: Algorithmic Judgment Strategies Underlie Inflated Self–Assessments of Performance*, 104 J. PERSONALITY & Soc. PSYCHOL. 976, 990 (2013).

^{146.} Id. at 978.

^{147.} Id.

overconfident in their predictions of world events than the "foxes," who tailored their analyses of their predictions based on a variety of "rules." The "foxes," however, were more accurate. Thus, the uninformed were more confident in their decisions—and therefore their self—assessments—even though they were less accurate. Likewise, overconfidence persists even if decision consistency relies on a flawed, or incorrect, rule—a product of being misinformed. He is ther uninformed or misinformed, overconfident students are likely to embrace the consistency of a single rule than the ambiguity created by several rules, which is endemic to legal analysis.

Another emerging explanation is that overconfidence is the result of a psychological bias that protects an individual's self-image of being better than average. 150 "[P]ositive illusions contribute to mental health and well-being . . . They foster self-esteem and enhance the motivation to act."151 Although perhaps distinct from the estimation of one's absolute performance, 152 students seem to calibrate their performance in relation to a perceived standard, "roughly half way from their actual scores to some norm . . . that appears to be the average GPA of the university [because they] appear to hold a common subjective level of performance and compare their own with that level."153 A similar conclusion was reached in a study of business students. Those students were asked questions "about their skills and abilities in several domains," 154 and the researchers found that "[p]articipants on average state[d] high probabilities for quantiles above average while they regard[ed] it as unlikely that they should fall into the bottom quantiles."155 So the very nature of the educational enterprise—where students believe they are compared to each other on what they believe are absolute terms—encourages students to rank themselves as above average as a self-protective behavior. This self-protective behavior, arising from a motivated bias, has psychological benefits that boost one's self-esteem. 156 As a consequence, poor performers' overconfidence

^{148.} Id.

^{149.} *Id.* at 992.

^{150.} Merkle & Weber, supra note 108, at 263.

^{151.} Id. at 269; see Alexander H. Jordan & Pino G. Audia, Self-Enhancement and Learning from Performance Feedback, 37 ACAD. MGMT. REV. 211, 223 (2012).

^{152.} Merkle & Weber, supra note 108, at 263.

^{153.} Dennis E. Clayson, Performance Overconfidence: Metacognitive Effects or Misplaced Student Expectations?, 27 J. MARKETING EDUC. 122, 127 (2005).

^{154.} Merkle & Weber, supra note 108, at 266.

^{155.} *Id.* at 269. Indeed, poorly performing business students can become quite defensive when given negative feedback and may be less inclined to improve their performance. Sheldon et al., *supra* note 117, at 133.

^{156.} Anderson et al., supra note 97, at 718.

becomes self—serving and egocentric and acts as a "bias blind-spot." Such overconfidence may be a way of protecting poor performers from the negative implications of their incompetence, especially in those students who are achievement—oriented.¹⁵⁸

A related benefit of overconfidence is the social currency inherent in convincing others that one is more competent than she actually is, "including control over group decisions, access to scarce resources, and reproductive success." ¹⁵⁹ This self–enhancement explanation was the thrust of six studies involving 664 participants that employed self–reports, peer–ratings, and outside raters. ¹⁶⁰ The researchers found:

(a) Overconfident individuals were perceived by others as more competent and, in turn, afforded higher status, (b) overconfident individuals displayed the behaviors that are used by others to infer competence, and (c) the desire for status—both naturally occurring and experimentally induced—leads to higher levels of overconfidence.¹⁶¹

All these internal reasons for being overconfident create a stew of actual and perceived benefits for becoming and remaining overconfident, reasons that may require individual "diagnosis" and "treatment." However, regardless of the psychological reasons that may motivate overconfidence, the overconfidence itself is often impervious to efforts to improve performance, even through direct instruction.

In order to address the growing overconfidence—incompetence phenomenon in law students, we have to be attentive to at least one basic underlying problem that arises from their academic underpreparedness for critical thinking and problem solving. Matriculating law students are confident that their previous educational experiences have trained them to tackle the challenges of law school. However, they are woefully underprepared for tackling those challenges. That underpreparedness is not necessarily their fault. Their previous educational experiences have been framed by the unfortunate and misguided governmental policy that standardized testing adequately measures the K–12 student learning outcomes

^{157.} Williams & Gilovich, supra note 132, at 1126.

^{158.} Gramzow et al., supra note 108, at 56.

^{159.} Anderson et al., supra note 97, at 718–19; see also Briony D. Pulford & Andrew M. Colman, Overconfidence: Feedback and Item Difficulty Effects, 23 Personality & Individual Differences 125, 127 (1997).

^{160.} Anderson et al., supra note 97, at 730-31.

^{161.} Id. at 730.

^{162.} See generally Stuart & Vance, supra note 2.

that will make our children educated citizens. Such shallow learning has little or no usefulness in the more complex cognitive skills needed to succeed in higher education. Indeed, such shallow learning may actually inhibit any awareness that such higher—order thinking is necessary. However, many of our matriculating students' undergraduate experiences also have been woefully deficient in building more complex critical—thinking and problem—solving skills. As a result, there is inherent resistance—and increasingly so—to changing to a more difficult learning modality in law school that is alien to most and difficult for many. This dilemma is further exacerbated by the poor performers' overconfidence in their undergraduate skills and therefore their particular resistance to change.

At the most fundamental level, poor performers resist instruction on skills that will improve their learning. One basic hurdle is that many of them do not seek help. Poorly performing students—those below C+ range—are often the least likely to seek academic assistance and, if required to seek it, fail to use it. Second, they do not have the internal motivation necessary to improve their learning skills, sometimes for the most illogical reasons: T can't change; "I don't want to change"; "I don't know what to change"; and "I don't know how to change."

The first type of poorly performing student believes she cannot change and gives up easily when confronted with changes in her learning skills. This student is convinced that she does not have the ability to succeed and therefore is not inclined to change her skills. Such students with low self-efficacy are less likely "to choose difficult tasks, they expend less effort, persist for shorter periods of time, use less deep processing skills, do not ask for help when they need it, and experience fear and anxiety regarding academic

^{163.} See, e.g., Melissa Gross & Don Latham, Undergraduate Perceptions of Information Literacy: Defining, Attaining, and Self-Assessing Skills, 70 C. & RES. LIBR. 336, 346 (2009). In a study designed to examine college freshmen's basic information literacy, the researchers learned that students are more interested in product than process:

[[]Proficient information seekers] present a view of information seeking that is very focused on product or outcome (can you find what is needed?) rather than the knowledge base and skills that lie behind the ability to achieve this result. . . . Computer literacy, library skills, searching skills, and other "background" abilities such as assessing the quality of sources, thinking critically about information, and having an awareness of the legal and ethical issues related to information use are largely absent whether they are being overlooked or assumed.

Id. at 345-46.

^{164.} Stuart & Vance, supra note 2, at 57-61.

^{165.} Dembo & Seli, supra note 124, at 2.

^{166.} Id.

^{167.} Id. at 3-5.

^{168.} Id. at 3.

risks."¹⁶⁹ Therefore, she falls back on her automated learning behavior or just gives up.¹⁷⁰ This student is more likely to believe that her innate ability is a fixed trait and that her poor performance is a consequence of that uncontrollable factor.¹⁷¹ This student, however, can change her learning when told that her poor performance is actually a controllable factor—her lack of effort.¹⁷²

The second type of poor performer does not want to change and is therefore not motivated to put in the time and effort to do so.¹⁷³ This type of poor performer often presents as the most intractable to change because she has succeeded at lower–level learning skills in earlier educational experiences but lacks the critical thinking skills to advance to the next level.¹⁷⁴ This student does not want to change her learning skills because doing so conflicts with her image of herself.¹⁷⁵ This student is often more intent on merely outperforming her classmates rather than attaining mastery of the materials.¹⁷⁶ Finally, this student is prone to blame her professors for her poor performance, not on grounds of perceived unfairness but because doing so excuses her from having to change.¹⁷⁷

The last two types of poorly performing students—those who do not know what to change and those who do not know how to change—have similar metacognitive problems. The first has problems monitoring her own learning behavior and cannot match the appropriate learning strategy in the face of different tasks. ¹⁷⁸ She cannot discern the difference between learning strategies for recall tasks and those for more analytical tasks. ¹⁷⁹ The poor performer who does not know how to change, on the other hand, either has not had enough practice in a particular learning strategy or does not know how to use it. ¹⁸⁰ Thus, in addition to having individual reasons for maintaining overconfidence in the face of poor performance,

^{169.} Id. at 3-4.

^{170.} Id. at 3.

^{171.} Id. at 4; see also Linda Bol et al., The Influence of Overt Practice, Achievement Level, and Explanatory Style on Calibration Accuracy and Performance, 73 J. EXPERIMENTAL EDUC. 269, 288 (2005) (poor student performance is blamed on inadequate review or poor test construction).

^{172.} Dembo & Seli, supra note 124, at 4.

^{173.} Id.

 $^{174. \}quad Id.$

^{175.} Id.

^{176.} Id.

^{177.} Id.

^{178.} Id.

^{179.} Id. at 6.

^{180.} Id.

these poor performers have different reasons for refusing—or failing—to use the metacognitive skills that we might furnish them that would make them competent.

As might be suggested by the characteristics of the students outlined above, some of the hard–core overconfident will refuse to change because they see little or no value in changing their learning strategies¹⁸¹ or will even admit to doing nothing to affect projected negative outcomes.¹⁸² For those students, no amount of feedback will change their behaviors. However, the remaining overconfident yet poorly performing students might benefit from feedback if we both address the underlying motivations for their overconfidence and resistance to change and use effective strategies for making them more competent.

One such strategy is to persuade poor performers that intelligence is malleable.¹⁸³ "[Students] who are taught that intelligence is malleable get more excited about learning, become more motivated in the classroom and achieve better grades."¹⁸⁴ A student who is aware that her intelligence is not a fixed trait, or attribute, is more likely to change and becomes less overconfident in her single strategy for learning.¹⁸⁵ Belief in her own ability to mediate new learning strategies within the complexities of the law will make her better able to self—asses her performance and to adjust her learning for new situations.

Inextricably intertwined in the belief in intellectual malleability is changing the student's fixed mindset. The emerging literature on changing fixed mindset details specific strategies that may change the reliance on fixed traits. Perhaps the most significant strategy that affects both the students and the teachers is the notion that the feedback we give to students is metacognitive, specifically that the students can intentionally learn critical thinking skills by praising their work ethic, or process, rather than praising

^{181.} Debra A. Bercher, Self-Monitoring Tools and Student Academic Success: When Perception Matches Reality, 41 J. C. Sci. Teaching 26, 31 (2012).

^{182.} *Id.* at 32. In a study of at—risk students taking a developmental, or remedial, undergraduate biology class, nearly twenty—five percent of those who failed the class reported that doing work for extra credit was not worth the effort. Randy Moore, *Academic Motivation and Performance of Developmental Education Biology Students*, 31 J. DEVELOPMENTAL EDUC. 24, 30 (2007).

^{183.} Ehrlinger et al., supra note 109, at 119.

^{184.} Id.

^{185.} *Id*.

^{186.} See, e.g., Sarah J. Adams-Schoen, Of Old Dogs and New Tricks—Can Law Schools Really Fix Students' Fixed Mindsets?, 19 Legal Writing 1, 1–2 (2014), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2463853; see generally Carol S. Dweck, Mindset: The New Psychology of Success (2006).

^{187.} Adams-Schoen, supra note 186, at 34-37.

the student's innate ability to succeed.¹⁸⁸ In other words, "effort" praise is more effective at increasing problem—solving skills than "ability" praise, upon which students become fixated and fail to improve.¹⁸⁹ Implicitly, effort praise is heightened by "robust criticism with a message that the student is being held to a high standard and an assurance that the student can with persistence and effort meet that standard[, which leads] to increased task motivation, trust in the critic, and identification with the skill at issue."¹⁹⁰

Another emerging area of study in legal pedagogy is the role of students' responsibility for their own learning, focusing on the interior motivation for a student to achieve rather than on external pressures. Factored into that undertaking is whether or not students perceive the educational institution as a place for learning; whether or not students understand that they are responsible for their learning; and whether or not students actually view themselves as responsible. The latter cognate—the underlying foundation for any undertaking of metacognition—is often conditioned on whether or not the students believe they "are responsible" in contrast to "being held responsible. He distinction is that students who believe they are "being held responsible" feel forced to learn and will only do the minimum amount of work to get by. On the other hand, those students who "are responsible" for their learning exhibit the characteristics of the self-regulated learner.

"Self-regulation refers to the self-generated thoughts, feelings, and actions for attaining one's goals . . . and involves the relationship between the person, [her] behaviors, and the environment." ¹⁹⁵

^{188.} Id. at 38.

^{189.} Id.; Claudia M. Mueller & Carol S. Dweck, Praise for Intelligence Can Undermine Children's Motivation and Performance, 75 J. Personality & Soc. Psychol. 33, 48–49 (1998).

^{190.} Adams—Schoen, *supra* note 186, at 39. However, negative feedback may also be perceived as less accurate than positive feedback, leading to decreased motivation. Traci Sitzmann & Stefanie K. Johnson, *When Is Ignorance Bliss? The Effects of Inaccurate Self–Assessments of Knowledge on Learning and Attrition*, 117 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 192, 192 (2012).

^{191.} Cassandra L. Hill, The Elephant in the Law School Assessment Room: The Role of Student Responsibility and Motivating Our Students to Learn, 56 How. L.J. 447, 460 (2013). 192. Id. at 461; see generally Charles S. Bacon, Student Responsibility for Learning, 28 ADOLESCENCE 199 (1993).

^{193.} Hill, *supra* note 192, at 461; *see* Pam Schuetz & Jim Barr, *Transmuting Resistance to Change*, 144 NEW DIRECTIONS FOR COMMUNITY COLLEGES 105, 112 (2008) (suggesting that top–down hierarchies in higher education cast "students as relatively passive recipients of education rather than active participants.").

^{194.} Hill, supra note 192, at 461.

^{195.} Marisa T. Cohen, *The Importance of Self–Regulation for College Student Learning*, 46 C. STUDENT J. 892, 892 (2012).

Self–regulation in learning relies on the related constructs of metacognition and self–monitoring strategies. ¹⁹⁶ "Self–regulated learners are interested in subject matter, well–prepared, ready with comments and insights, are able to admit if they do not understand, and are driven to construct understanding." On the other hand, poor performers exhibit lower self–regulation by employing "more rehearsal and memorization strategies, [suggesting] that they are less likely to use elaborative or organizational strategies, which prevents them from having a deep understanding of the material." ¹⁹⁸

Self-regulated learning has also been linked to better regulation of one's self-assessment of skills and confidence. For instance, science majors—who have a curriculum of problem-solving and critical thinking—have a much better calibrated sense of their skills and confidence because of the rigor of the knowledge domain than do business majors, where confidence is more highly prized. Insofar as legal analysis engages those cognitive processes that are more like that of the science major, we have to solve the dilemma of teaching an increasing number of students who are short on logical and mathematical skills. Doing so might also mitigate those students' overconfidence.

Bridging that chasm of few or nonexistent logical skills will be dependent upon teaching these cognitive skills intentionally and encouraging learning as learning. ²⁰² Indeed, intentional learners exhibit less overconfidence than incidental learners, who are exposed to the same material but make no deliberate attempt to learn it. ²⁰³ Deliberative learners have greater correct metacognitive skills and are aware of and can distinguish between deliberative

^{196.} Id. at 893; Karee E. Dunn et al., Influence of Academic Self-Regulation, Critical Thinking, and Age on Online Graduate Students' Academic Help-Seeking, 35 DISTANCE EDUC. 75, 77 (2014); see generally Efklides, supra note 126.

^{197.} Cohen, supra note 196, at 893; see also Ana-Maria Cazan, Self Regulated Learning Strategies—Predictors of Academic Adjustment, 33 PROCEDIA: SOC. & BEHAV. SCI. 104, 107–08 (2012).

^{198.} Cohen, supra note 196, at 896.

^{199.} Saima Ghazal et al., Predicting Biases in Very Highly Educated Samples: Numeracy and Metacognition, 9 JUDGMENT & DECISION MAKING 15, 26 (2014).

^{200.} Indeed, business majors had the largest discrepancies between their self-reported knowledge and actual performance across all four knowledge domains tested: science, civics, humanities, and business/law. Ackerman et al., *supra* note 108, at 602–03.

^{201.} Numeracy tests—examining an essential ingredient of scientific thinking—"predict superior judgment and decision making because they assess (i) heuristic—based deliberation and metacognition . . . (ii) affective numerical intuition . . . and (iii) meaningful intuitive understanding." Ghazal et al., *supra* note 200, at 28–29.

^{202.} Ehrlinger et al., supra note 109, at 119.

^{203.} Pulford & Colman, supra note 159, at 127.

and intuitive solutions. 204 And their confidence levels were more realistic. 205 Intuitive learners, however, are highly confident because they are solely reliant on their intuitive solutions and are oblivious to the deliberative solutions. 206

Specific strategies for intentionally teaching deliberative learning skills constitute, happily, a rich field for legal scholarship, especially by those who have—to date—been the primary source for teaching legal skills and not just imparting knowledge. To name just a few contributors, Anthony Niedwiecki has developed an arc of literature that speaks specifically to teaching metacognition skills to law students²⁰⁷ while Robin Boyle has added active learning techniques to the literature.²⁰⁸ And Elizabeth Bloom has added a rich dimension that derives from academic support to teach law students how to become self–regulated learners.²⁰⁹

By using such intentional teaching, we can provide feedback that serves as both the means for a student to measure her learning and an opportunity to change poor learning skills. Overconfidence enters the equation at the feedback for "change" stage, when poor performers fail—or refuse—to embrace the initial intentional teaching then fail the assessment. Addressing overconfidence in those poor performers is a task that is both psychological and pedagogical in which figures a variety of personal motivations that are not easily accessed in the literature. For this, there is no one single strategy although understanding the sources of overconfidence is a useful tool. There is, however, one especial barrier—the institution itself and its resistance to change.

^{204.} André Mata et al., The Metacognitive Advantage of Deliberative Thinkers: A Dual–Process Perspective on Overconfidence, 105 J. Personality & Soc. Psychol. 353, 369 (2013). 205. Id. at 367.

^{206.} Id. at 368.

^{207.} Niedwiecki, supra note 141; Anthony Niedwiecki, Teaching for Lifelong Learning: Improving the Metacognitive Skills of Law Students through More Effective Formative Assessment Techniques, 40 CAP. U. L. REV. 149 (2012); see also E. Scott Fruehwald, How to Help Students from Disadvantaged Backgrounds Succeed in Law School, 1 Tex. A&M L. REV. 83 (2013–2014).

^{208.} See generally Robin A. Boyle, Employing Active-Learning Techniques and Metacognition in Law School: Shifting Energy from Professor to Student, 81 U. Det. Mercy L. Rev. 1 (2003).

^{209.} See generally Elizabeth M. Bloom, Teaching Law Students to Teach Themselves: Using Lessons from Educational Psychology to Shape Self–Regulated Learners, 59 WAYNE L. REV. 311 (2013).

^{210.} E.g., Elizabeth M. Bloom, A Law School Game Changer: (Trans)formative Feedback, 41 Ohio N.U. L. Rev. (2015) (forthcoming); Paula J. Manning, Understanding the Impact of Inadequate Feedback: A Means to Reduce Law Student Psychological Distress, Increase Motivation, and Improve Learning Outcomes, 43 CUMB. L. Rev. 225 (2012–2013).

B. The Institution

One major contributor to the overconfidence of law students and their consequent incompetence is inherent in higher education itself, including law schools. Only at this education level are few, if any, teachers actually trained in educational practices and teaching methods. Without doubt, gifted teachers exist in the legal academy, especially in the skills courses. But those few are not enough to break through the silos built up by those teachers who are not as skilled and are themselves resistant to change. To date, the academy's solution has been to offer developmental and remedial courses and to hire academic support professionals to take up the slack. However, doing so ignores the collective responsibility of the academy to address the fundamental learning deficits our students present when they matriculate. Instead, the basic teaching model for doctrinal classes instills overconfidence in law students because they perceive they are "learning" in the large lecture classes with which they are already familiar—and have experienced success in their undergraduate institutions.

Effective learning has two components: retention and transfer. Retention is "the ability to recall information or perform a skill over the long term.²¹¹ Transfer is "the ability to apply the knowledge or perform the skill across a number of relevant situations."²¹² However, the common and cost—effective way to deliver education—"massed training"—effectively and rapidly delivers knowledge and proficiency but without retention.²¹³ Students like massed training because they confuse the speed and ease of learning in large lecture classes with the attainment of competence, and with that confusion comes overconfidence in their skills.²¹⁴ "Students and instructors both assume that if a skill has been learned quickly and the student finds it easy to perform, then the student will maintain the skill in the long—term Short—term excellence is mistaken for long—term competence."²¹⁵ Instead, the knowledge and skill learned in that environment is forgotten rapidly, ²¹⁶ leaving nothing to transfer.

So law students who sit through lectures and understand what is going on assume that they have learned the materials, and if they have not, they study for the short-term goal of studying intensely

^{211.} Flawed Self-Assessment, supra note 134, at 86.

^{212.} Id.

^{213.} Id.

^{214.} Id. at 87.

^{215.} Id.

^{216.} Id. at 86.

for an end-of-semester examination. Often with only one opportunity to receive feedback, the overconfident are not going to attain enough information about their incompetence in order to improve during the course. Instead, it increases their opportunities for blaming external influences for their failures without the ability to better calibrate their self-assessments. Indeed, the traditional "chalk and talk" approach to teaching "contributes to overconfidence and unmet expectations . . . because students are not actively involved and do not receive significant amounts of instructional feedback concerning the state of their understanding and mastery of the material." ²¹⁷

In addition, large lecture classes often rely on multiple-choice examinations as the ultimate—and sometimes only—feedback instrument for a course. Unfortunately, those examinations are not designed to measure students' problem-solving and higher-order critical thinking skills they will need in the profession: a real-life client is unlikely to present the lawyer with four choices from which to pick the correct solution. Multiple-choice examinations have value in assessing, objectively, students' knowledge and comprehension of materials, but they tap only into students' recognition skills, rather than recall skills, and cannot be designed to test the more complex skills of synthesis and evaluation required for legal analysis. 218 Our students have become so inured to multipl-choice testing that they can now "game" the system by studying intensely right before the examination, but doing so is at the expense of long-term retention. As long as success in multiple-choice examinations communicates success as a law student and thus engenders confidence in that success, those students who perform poorly in other criticalthinking and problem-solving skills have little incentive to change for those narrowly perceived courses.²¹⁹

The academy has no choice but to start changing its teaching techniques in order to better address students' underlying lack of cognitive skills. For instance, mass training in large classes can be made more effective with continuous feedback and more problem—solving.²²⁰ Furthermore, our teaching must become more integrally

^{217.} Paul W. Grimes, The Overconfident Principles of Economics Student: An Examination of a Metacognitive Skill, 33 J. ECON. EDUC. 15, 27 (2002).

^{218.} Stuart & Vance, supra note 2, at 55 n.67.

^{219.} Multiple–choice questions can be used to improve better calibration of confidence if poor performers are required to write out all the reasons why each answer was right or wrong, not just one. Pulford & Colman, supra note 159, at 126.

^{220.} Flawed Self-Assessment, supra note 134, at 86. In addition, spaced, or distributed, one-hour classes for a longer time are more effective for long-term retention than two-hour classes in a more compressed period of time. *Id.* at 87.

involved in engaging students' intentional learning and attainment of metacognitive skills whereby appropriately tailored feedback—and the more the better—will help students become more competent. Lawyering requires accurate self—assessment, and overcoming unwarranted overconfidence in our students to improve their self—assessment skills requires "explicit training, clear learning goals and the provision of feedback and other sources of evaluative data."²²¹ But feedback has to be used judiciously.

Learning is also improved when the teacher "changes up" the learning circumstances with variability and unpredictability. ²²² That change—up may include the withholding of both feedback and modeling and thereby allowing students to fail. ²²³ Introducing "desirable difficulties" into instruction creates better retention and transfer of learning because the students have to work harder at their cognitive skills. ²²⁴ Indeed, unguided learning provides greater retention when the student has to do more for herself than guided learning when the information is provided to the student. ²²⁵ Those who solve problems on their own tend to be more proactive and thereby create better and more efficient strategies for solving problems. ²²⁶

Changing teaching strategies to meet those needs will be difficult for those accustomed to the large–class lecture format. Instructors who are trained to teach critical thinking skills as a distinct component of the course not only improved their students' performance but provided modeling for student learning.²²⁷ Instructors, however, tend to shy away from doing so because it takes more effort than traditional teaching methods.²²⁸ That is a discussion from which the academy can no longer run, especially given the new ABA Standards that require law schools to formulate student learning

^{221.} Langendyk, supra note 114, at 40.

^{222.} Flawed Self-Assessment, supra note 134, at 87.

^{223.} Id.

^{224.} Id. at 88.

^{225.} Christof van Nimwegen & Herre van Oostendorp, The Questionable Impact of an Assisting Interface on Performance in Transfer Situations, 39 INT'L J. INDUS. ERGONOMICS 501, 507 (2009); see generally Christof van Nimegen, The Paradox of the Guided User: Assistance Can Be Counter-Effective (1971) (dissertation), dspace.library.uu.nl/bitstream/handle/1874/26874/26875/nimwegen.pdf?sequence=2.

^{226.} Van Nimwegen & van Oostendorp, supra note 226, at 507.

^{227.} Dunn et al., supra note 197, at 84.

^{228.} Id.

outcomes and implement formative and summative assessments.²²⁹ But it is a discussion we must have.

IV. FINAL THOUGHTS: "MODEST DOUBT IS CALLED THE BEACON OF THE WISE." 230

Overconfidence is not an immutable characteristic, but it is a detrimental characteristic for our law students. Overconfidence often makes our students impervious to learning changes, which law school—by its very nature—is designed to accomplish. Overconfidence therefore inhibits many of our students from learning the critical—thinking and problem—solving skills that will make them lawyers.

Addressing this dynamic has both personal and pedagogical challenges with which the legal academy is just now coming to grips. This Article articulates those challenges but does not—indeed, cannot—address all the possible solutions. Those solutions will necessarily invoke intentional teaching of both cognitive and metacognitive skills, difficult tasks in the best of times but more so now as many of our students present themselves with only rudimentary reasoning skills emblematic of their ages, their inadequate educational backgrounds, and their overuse of technology as the answer to all questions. And, of course, their overconfidence makes them resistant to change, a vicious and recursive circle of the curse of the incompetent. These are times that will test the dedication of the legal academy to the enterprise in which we are all engaged. But our very survival depends on changing the rules of that engagement.

^{229. 2014–2015} Standards and Rules of Procedure for Approval of Law Schools, AM. BAR ASS'N (Chapter 3), http://www.americanbar.org/content/dam/aba/publications/misc/legal_education/Stnards/2014_2015_aba_standards_chap ter3.authcheckdam.pdf (last visited Nov. 3, 2014).

^{230.} WILLIAM SHAKESPEARE, TROILUS AND CRESSIDA, act II, sc. 2.