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Deconstructing Thinking Like a Lawyer: Analyzing the Cognitive Components of the Analytical Mind

LARRY O. NATT GANTT, II*

I. INTRODUCTION

*"You come in here with a head full of mush and you leave thinking like a lawyer."*¹

Professor Kingsfield's declaration in the movie *The Paper Chase* over thirty years ago still rings true as legal educators continue to seek to train students to "think like lawyers."² Despite the popularity of the phrase, legal scholars have not agreed on a detailed conception of what "thinking like a lawyer" means.³ Does it mean the ability to analyze

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1. Nancy B. Rapoport, *Is "Thinking Like a Lawyer" Really What We Want to Teach?*, 1 J. ASS'N LEGAL WRITING DIRECTORS 91, 91 (2002) (quoting *THE PAPER CHASE* (Twentieth Century Fox 1973)).

2. See, e.g., WILSON HUNN, *THE FIVE TYPES OF LEGAL ARGUMENT* 12 (2002) ("The purpose of legal education is to teach students 'how to think like lawyers.'"); David T. ButleRitchie, *Situating "Thinking Like a Lawyer" Within Legal Pedagogy*, 50 CLEV. ST. L. REV. 29, 29 (2002-03) ("The notion that a legal education is meant to convey to students an idea of how to 'think like lawyers' is central to the modern legal academy."); MICHAEL HUNTER SCHWARTZ, *EXPERT LEARNING FOR LAW STUDENTS* 203 (2005) ("Law professors almost universally refer to their task as teaching their students to 'think like a lawyer' or teaching their students 'legal analysis.'"); Jack Chorowsky, *Thinking Like a Lawyer*, 80 U. DET. MERCY L. REV. 463 (2003). Mr. Chorowsky's brief essay is part of a symposium issue on *Advice for Prospective Law Students*, and he offers only a short definition of "thinking like a lawyer." See Chorowsky, *supra*, at 463-65. The phrase is so pervasive that even books geared to nonlawyers encourage them to think like lawyers so that they can more effectively negotiate the trials in everyday life. See Jamie Bufalino, *What Lawyers Know That You Wish You Knew*, O, *THE OPRAH MAGAZINE*, May 2004, at 89-90 (discussing the recent book by Lis Wiehl *Winning Every Time: How to Use the Skills of Lawyers in the Trials of Your Life*).

3. See, e.g., SCHWARTZ, *supra* note 2, at 203 (observing that "many law professors do not do a very good job defining for themselves or their students" what "thinking like a lawyer" means); Eric A. DeGroff & Kathleen A. McKee, *Learning Like Lawyers:*

primary legal materials and deduce how rules from those materials apply to factual situations? Does it mean the ability to break down complicated problems into nuggets of information that can be ordered into a clear analytical framework? Does it mean the ability to see ambiguity in what most people think is clear? Does it mean all these things?⁴

Numerous resources offer only general definitions of what it means to “think like a lawyer.”⁵ In October 2002, the *Journal of the Association of Legal Writing Directors* published several articles addressing the issue: “Is ‘Thinking Like a Lawyer’ Really What We Want to Teach?”⁶ Although the articles devote significant discussion to the extent to which law schools should focus on training students to think like lawyers, they fail to examine extensively what the phrase

Addressing the Differences in Law Student Learning Styles, 2006 B.Y.U. EDUC. & L.J. 499, 500 (2006) (observing that “[w]hat it actually means to ‘think like a lawyer’ remains ill-defined”). In their book on legal writing, Norman Brand and John White contend that some individuals rely on “informed intuition” to help them solve legal problems. NORMAN BRAND & JOHN O. WHITE, *LEGAL WRITING: THE STRATEGY OF PERSUASION* 135, 140 (2d ed. 1988). People relying on such intuition may be able to solve such problems, but they may not be able to explain the specific thought processes they used to solve the problems. Others are therefore still left wondering what it means to “think like a lawyer.”

4. Although “thinking like a lawyer” likely does include many cognitive processes, a definition of “thinking like a lawyer” that is too broad is unhelpful. Stephen Burton discusses the problem of overbreadth in highlighting the many issues a legal thinker might consider before applying a statute. He concludes that, in trying to consider all the issues, the legal thinker would “feel that [she] has been told to think about everything before doing nothing. That is the formula to ensure that [she] does nothing.” STEVEN J. BURTON, *AN INTRODUCTION TO LAW AND LEGAL REASONING* 56 (2d ed. 1995). Similarly, a description of the cognitive components of “thinking like a lawyer” that includes “everything” provides would-be legal thinkers no specific guidance to help them assess the suitability of their thought processes to solving legal problems.

5. See, e.g., KENNEY F. HEGLAND, *INTRODUCTION TO THE STUDY AND PRACTICE OF LAW* 87-88 (2003) (“(1) To spot legal issues (problems) lurking in any fact pattern; (2) To know the general solutions the law has adopted to solve these problems; and (3) To apply these solutions to case at hand. This, and nothing more fancy is what it is ‘to think like a lawyer.’”).

6. Authors presented the papers during a panel at the 2001 Association of Legal Writing Directors (“ALWD”) Conference. The panel was entitled “Do Best Practices in Legal Education Include an Obligation to the Legal Profession to Integrate Theory, Skills, and Doctrine in the Law School Curriculum?” The papers are published in the *Journal of the Association of Legal Writing Directors*. See 1 J. ASS’N LEGAL WRITING DIRECTORS 91-129 (2002).

means in the first place.⁷ In his article, Dean Scott Bice offers one of the more detailed definitions of the term. He opines that the term includes:

[T]he interpretation and use of legal materials (cases, statutes, administrative orders, private contracts, etc.) to serve clients' interests. Sometimes serving those interests involves using legal knowledge for counseling, sometimes for negotiation, sometimes for lobbying for a change in a relevant statute, sometimes for litigation. Moreover, in certain fora (an appellate court or a legislative body), "thinking like a lawyer" requires normative arguments, which involve considerations of such values as efficiency, corrective justice, and wealth distribution.⁸

Dean Bice's definition, like many of the others, focuses on the practice of law in conceptualizing what thinking like a lawyer means.

Definitions like this are unfulfilling. They are too context-specific in assuming that individuals most think like lawyers when they are representing clients, analyzing cases or statutes, or otherwise engaging in traditional lawyering activities. In turn, these definitions tend to be circular; they state that individuals are thinking like lawyers when they are thinking through the tasks that most lawyers do. These definitions do not go beyond the tasks of lawyers to consider what underlying cognitive processes are involved when lawyers undertake these tasks.

In light of these definitions, legal scholarship would benefit from an extended discussion of the cognitive components of the skill that has become a central theme of legal education. Discussing these cognitive components is additionally important because much has changed over the last 15 years in how the legal academy views law school pedagogy. Both the Association of American Law Schools and the Society of Law Teachers have encouraged new and experienced law teachers to try new teaching methods,⁹ and legal educators have begun to experiment with instructional models different than the traditional case-driven, Socratic method.¹⁰ What is unresolved is whether these changes in law school instruction have changed the meaning of "think-

7. In his article, "Situating 'Thinking Like a Lawyer' Within Legal Pedagogy," David ButleRitchie argues that teaching law students how to "think like a lawyer" is an integral link to initiating them into the legal world in modern American society. ButleRitchie, *supra* note 2, at 31-32.

8. Scott H. Bice, *Good Vision, Overstated Criticism*, 1 J. ASS'N LEGAL WRITING DIRECTORS 109, 109-10 (2002).

9. Rapoport, *supra* note 1, at 94 n. 10.

10. See Paula Lustbader, *From Dreams to Reality: The Emerging Role of Law School Academic Support Programs*, 31 U.S.F. L. REV. 839, 842-47 (1997) (recounting how law school academic support programs have influenced law school faculty to use nontraditional pedagogical methods).

ing like a lawyer.” The traditional case-driven method, for instance, certainly has affected the conception of how lawyers should think. Now that the legal academy is changing, the question arises whether the fundamental skills legal educators are teaching are changing.¹¹ Similarly, as the practice of law changes, a related question arises as to whether law school instruction in “thinking like a lawyer” *should* change.

Discussing the meaning of the phrase is also important because the advent of law school academic support programs has introduced to the law school curriculum a new emphasis on teaching the skills that make a successful law student and a successful lawyer.¹² Academic support professionals often talk about teaching students how to think like lawyers;¹³ advancing a scholarly discussion on the concept would aid these professionals in their work.

11. For instance, Harvard Law School recently adopted changes to its first-year curriculum, and these changes include introducing a course entitled “Problems and Theories,” which will focus on problem solving, while introducing students to theoretical frameworks illuminating legal doctrines and institutions. *HLS Faculty Unanimously Approves First-Year Curricular Reform*, at http://www.law.harvard.edu/news/2006/10/06_curriculum.php (last visited February 5, 2007); see also Sacha Pfeiffer, *Twas a Time for Change*, THE BOSTON GLOBE, May 7, 2006, available at http://www.boston.com/business/articles/2006/05/07/twas_a_time_for_change/ (last viewed May 11, 2006). The *Boston Globe* article notes how the proposal recognizes a significant shift from the traditional case method and adds how other law schools have adopted, or are considering, similar changes. Pfeiffer, *supra*.

12. See Leslie Yalof Garfield & Kelly Koenig Levi, *Finding Success in the “Cauldron of Competition”: The Effectiveness of Academic Support Programs*, 2004 B.Y.U. EDUC. & L.J. 1 (2004); Richard Cabrera & Stephanie Zeman, *Law School Academic Support Programs - A Survey of Available Academic Support Programs for the New Century*, 26 WM. MITCHELL L. REV. 205 (2000) (describing survey of ABA approved law schools which found over 90 percent of the 151 respondent schools reported having some type of academic support program).

13. See, e.g., RUTA K. STROPUS & CHARLOTTE D. TAYLOR, BRIDGING THE GAP BETWEEN COLLEGE AND LAW SCHOOL, STRATEGIES FOR SUCCESS 16 (2001) (observing that law school is designed to teach students how to “think like a lawyer”); HERBERT N. RAMY, SUCCEEDING IN LAW SCHOOL 76 (2006) (discussing how law students should think like lawyers as they take notes in class); SCHWARTZ, *supra* note 2, at 203. Professors Stropus and Taylor both have worked in the area of law school academic support. STROPUS & TAYLOR, *supra*, at xiii. Professor Ramy was the Director of the Academic Support Program at Suffolk University Law School, RAMY, *supra*, at xv, and is now the Director of the Academic Excellence Program at New England School of Law. See <http://www.nesl.edu/faculty/ramy.cfm> (last visited September 5, 2006). Prof. Schwartz is the Director of Ex-L, an academic support program at Washburn University School of Law. See <http://washburnlaw.edu/faculty/schwartz-michael.php> (last visited February 5, 2007).

An increasing body of scholarship has begun to analyze the process of legal reasoning, focusing on the cognitive elements of perceiving, organizing, and transforming new information into meaningful concepts, and on the process of using information to form judgments and solve problems.¹⁴ However, scholars who have previously considered trying to define what it means to “think like a lawyer” have disagreed over whether defining the phrase is even possible.¹⁵ Although the phrase is undeniably multifaceted, trying to define it is critical because it remains the phrase that is most commonly used to describe the fundamental goal of law school education.¹⁶

Moreover, some scholars have quibbled with the phrase “thinking like a lawyer” because they assert that it connotes a thinking skill that is unique to legal thinking and overlooks the fact that professionals in other roles may use the same skills that are relevant to “thinking like a

14. See, e.g., DeGroff & McKee, *supra* note 3, at 517-48 (employing the Kolb Learning Style Inventory (“KLSI”) to correlate law students’ learning styles with their first-year grades, their scores on the Law School Admissions Test (“LSAT”), and other variables); Vernelia R. Randall, *The Myers-Briggs Type Indicator, First Year Law Students and Performance*, 26 CUMB. L. REV. 63, 76 (1995-96) (employing the Myers-Briggs Type Indicator (“MBTI”) to identify “preferred patterns of mental functioning, such as information processing, idea development, and judgment formation” among first-year law students at the University of Dayton); Robin A. Boyle, Karen Russo & Rose Frances Lefkowitz, *Presenting a New Instructional Tool for Teaching Law-Related Courses: A Contract Activity Package for Motivated and Independent Learners*, 38 GONZ. L. REV. 1 (2002-2003) (using the Productivity Environmental Preference Survey (“PEPS”) to analyze the learning styles of law students at St. John’s University); John H. Reese & Tania H. Reese, *Teaching Methods and Casebooks*, 38 BRANDEIS L. J. 169 (2000) (reporting a three-year learning style research project at the University of Denver using the KLSI); John Sonsteng et al., *Learning by Doing: Preparing Law Students for the Practice of Law, The Legal Practicum*, 21 WM. MITCHELL L. REV. 111 (1995) (discussing a legal practicum implemented at William Mitchell School of Law with teaching materials grounded largely on the “learning cycle” theories of David Kolb and Madelin Hunter).

15. See STROPUS & TAYLOR, *supra* note 13, at 16 n.28 (reasoning that “debate abounds” as to the meaning of the phrase):

16. See *id.*; Stephen J. Friedman, *Why Can’t Law Students Be More Like Lawyers?*, 37 TOL. L. REV. 81, 84 (2005) (“The classical paradigmatic relationship between legal education and training to be a lawyer is simple: the most important function of law school education is to teach its students to think like lawyers, and law firms will do the rest.”); JOSEF REDLICH, *THE COMMON LAW AND THE CASED METHOD IN AMERICAN UNIVERSITY LAW SCHOOLS* 24 (1914) (“[T]he real purpose of scientific instruction in law is not to impart the content of the law, not to teach the law, but rather to arouse, to strengthen, to carry to the highest possible pitch of perfection, a specifically legal manner of thinking.”).

lawyer.”¹⁷ Such criticisms correctly underscore that law teachers should emphasize to students that “thinking like a lawyer” may not be significantly different from the critical thinking and analytical skills they developed in other disciplines.¹⁸ The criticisms, however, do not detract from the worth of trying to define the phrase. As noted, law students consistently hear that law school is not about learning the law as much as it is about learning how to “think like a lawyer”;¹⁹ the legal academy therefore owes it to them to define this phrase that legal educators continually use.

This article therefore tackles the task of identifying the cognitive components of legal thinking. The article begins this task by discussing the development of modern law school pedagogy, which gave rise to the emphasis on thinking like a lawyer. The article then considers current conceptions of legal thinking which have divided the skill into cognitive and practical components, and it examines why the cognitive components remain at the center of the skill. The article then surveys empirical research on legal thinking by examining recent research on personality and learning styles as well as research on law student and lawyer surveys. The article next analyzes the cognitive skills tested by the paradigmatic examinations relevant to law school and lawyering, the Law School Admissions Test (“LSAT”) and the bar examination. The article then draws upon these previous sections to delineate and

17. See Kurt M. Saunders & Linda Levine, *Learning to Think Like a Lawyer*, 29 U.S.F. L. REV. 121, 185 (1994) (recounting how legal thinking relates to analytical principles in various other disciplines).

18. *Id.* at 185; see also Leah M. Christensen, *The Psychology Behind Case Briefing: A Powerful Cognitive Schema*, 29 CAMPBELL L. REV. 5, 19 (2006) (“Most of us would agree that one of the tasks of law school is to teach students how to think like lawyers, but, in truth, lawyers do not really think differently than anyone else.”); cf. Drew L. Kershen, *Humanities and the First-Year Curriculum in Law School*, 34 OKLA. L. REV. 790, 792-93 (1981) (observing that first-year law students often believe that legal education is completely different from previous education they have received). Despite the similarities between legal thinking and analytical reasoning in other contexts, legal thinking does employ certain cognitive processes at a level different from how they are used in other contexts. Michael Hunter Schwartz, for instance, advances that the skills of legal reasoning and expressing legal reasoning in writing “require [students] to combine and use knowledge in ways that, while similar to skills [students] already possess, are unique.” SCHWARTZ, *supra* note 2, at 9. He adds, however, the students who develop good legal reasoning skills can use those skills in various contexts, regardless of whether they practice law. *Id.* at 18.

19. See Saunders & Levine, *supra* note 17, at 122-23 (citing Kenny Hegland, *Quibbles*, 67 TEX. L. REV. 1491, 1516 (1989) (“We’re not teaching you the law; we’re teaching you how to think like lawyers.”) and David P. Bryden, *What Do Law Students Learn? A Pilot Study*, 34 J. LEGAL EDUC. 479, 479 (1984) (reasoning that teaching legal thinking is more important than teaching legal rules)).

discuss specific components of legal thinking. In this discussion, the article references numerous resources that have analyzed the components of legal thinking, and it examines the results of a survey on legal thinking given to 250 law students at Regent University School of Law.

II. DEVELOPMENT OF MODERN LAW SCHOOL PEDAGOGY

Before defining the cognitive components of thinking like a lawyer, it is important to analyze the origins of the concept. Scholars are unsure when the phrase “thinking like a lawyer” first became popular, but they consistently trace the origin of the concept to the 1870s when Dean Christopher Langdell introduced the case method and Socratic method at Harvard Law School.²⁰ Dean Langdell introduced this approach because he believed that law is a science and that the scientific method could be suited for use in legal education.²¹ Through the analysis of case precedent and the related use of the Socratic method in the classroom, students were to learn analytical skills as well as the rules of law.²²

As the case method became ingrained in law school pedagogy, critics challenged that the method failed to teach explicitly the analytical skills the method was designed to develop.²³ Critics observed that

20. See Saunders & Levine, *supra* note 17, at 127; Alberto Bernabe-Riefkohl, *Tomorrow's Law Schools: Globalization and Legal Education*, 32 SAN DIEGO L. REV. 137, 161 (1995); Carrie Menkel-Meadow, *Narrowing the Gap by Narrowing the Field: What's Missing From the MacCrate Report - of Skills, Legal Science and Being a Human Being*, 69 WASH. L. REV. 593 (1994); Frank J. Macchiarola, *Lawyers in the Public Service and the Role of Law Schools*, 19 FORDHAM URB. L.J. 695 (1992). Prior to the 1870s, educators viewed the practice of law to be an art, and they placed legal education in the larger spectrum of the classical liberal arts. This view of law as art supported the position that legal skills could be acquired by apprenticeship, the then dominant mode of instruction in the law. Saunders & Levine, *supra* note 17, at 127 (citing, *inter alia*, ROBERT STEVENS, *TWO CHEERS FOR 1870: THE AMERICAN LAW SCHOOL*, in *LAW IN AMERICAN HISTORY* 405, 407-30 (Donald Fleming & Bernard Bailyn eds., 1971)).

21. See Saunders & Levine, *supra* note 17, at 128 (citing Christopher C. Langdell, *Teaching Law as a Science*, 21 AM. L. REV. 123, 123 (1887) (“[L]aw is a science, and . . . all the available materials of that science are contained in printed books.”)). Legal theorists prior to Langdell viewed the study of law to be a science, see HUHN, *supra* note 2, at 8; but legal educators did not comprehensively incorporate this belief into their instruction until the 1870s. See Saunders & Levine, *supra* note 17, at 127. Langdell’s particular approach to teaching law as science coincided with the growing faith in empiricism and scientific inquiry that was occurring in the late nineteenth century. *Id.* at 128 (citing JAMES W. HURST, *THE GROWTH OF AMERICAN LAW: THE LAW MAKERS* 200-61 (1950)).

22. See Saunders & Levine, *supra* note 17, at 128-29.

23. See, e.g., Paul F. Teich, *Research on American Law Teaching: Is There a Case Against the Case System?*, 36 J. LEGAL EDUC. 167 (1986).

this failure to focus on analytical skills, in part, led to students' focusing on rule memorization over skills development.²⁴ As Paul Wangerin reasoned, "Most who teach substantive courses will . . . acknowledge that dialectical skills should be a principal focus of their courses. For the most part, however, such acknowledgements are mere lip service to the idea. The overwhelming emphasis in most substantive courses is on substance."²⁵

Indeed, law students often quickly learn that they have to "know the rules" to succeed on their exams; and they, however misguided, focus on learning those rules and fail to develop their skills in applying those rules within an analytical framework.²⁶ "Many students leave law school still mystified because the skills involved in legal thinking are never explicitly identified during the first year as a common thread running through an integrated curriculum."²⁷

24. See, e.g., John B. Mitchell, *Current Theories on Expert and Novice Thinking: A Full Faculty Considers the Implications for Legal Education*, 39 J. LEGAL EDUC. 275, 288 (1989); Lewis D. Solomon, *Perspectives on Curriculum Reform in Law Schools: A Critical Assessment*, 24 U. TOL. L. REV. 1, 5 (1992).

25. Paul T. Wangerin, *Skills Training in "Legal Analysis": A Systematic Approach*, 40 U. MIAMI L. REV. 409, 412-15 (1986). One of the changes since Langdell's time is the prior educational training of most law students. As Saunders and Levine note, students at Langdell's time "had an undergraduate liberal education in rhetoric, logic, philosophy, science, and mathematics that served as a foundation for the case method. The case method was intended to systematize teaching; subsequently, however, the philosophical underpinnings have been gradually eroded and what has been retained is simply the form." Saunders & Levine, *supra* note 17, at 183.

26. In my seven years of work in law school academic support, the most common reaction I hear from students after they receive their first-semester grades is "But I knew the law . . ." Their reaction underscores how they emphasized learning the legal rules over learning the analytical approach necessary to succeed on law school exams.

27. Saunders & Levine, *supra* note 17, at 131. Some schools have attempted to address this shortcoming by increasing the degree of skills instruction in their curricula, such as by developing their legal research and writing and their clinical programs. See N. William Hines, *Ten Major Changes in Legal Education Over the Past 25 Years*, AALS NEWSLETTER, August & November 2005 (article continued from the August to the November issue), available at http://www.aals.org/documents/aals_newsletter_aug05.pdf and http://www.aals.org/documents/aals_newsletter_nov05.pdf. Others have developed legal methods courses, which address analytical methods over and above a traditional legal research and writing course. Critics, however, have observed that these courses are promising but still suffer from certain shortcomings that inhibit students' learning of fundamental analytical skills. Saunders & Levine, *supra* note 17, at 131-32 (citing, *inter alia*, Leslie E. Gerwin & Paul M. Shupack, *Karl Llewellyn's Legal Method Course: Elements of Law and Its Teaching*, 33 J. LEGAL EDUC. 64 (1983)). Saunders and Levine discuss other curricular changes, like interdisciplinary approaches and collaborative learning, that law schools have adopted; but they reason

III. PRACTICAL AND COGNITIVE COMPONENTS OF LEGAL THINKING

In an attempt to define those skills, a task force of the ABA Section on Legal Education and Admissions to the Bar issued in 1992 a report (the “MacCrate Report”) that identified what it determined to be basic lawyering skills and professional values that a student should have developed by the time she is ready to represent her first client.²⁸ These basic skills and values include: (1) problem solving; (2) legal analysis and reasoning; (3) legal research; (4) factual investigation; (5) communication; (6) counseling; (7) negotiation; (8) litigation and alternative dispute resolution procedures; (9) organization of legal work; and (10) recognizing and resolving ethical dilemmas.²⁹

From this list, scholars who have considered what it means to “think like a lawyer” have distinguished between the practical skills involved in this development and the analytical skills.³⁰ Specifically, in their article on “thinking like a lawyer,” Kurt Saunders and Linda Levine observe, “Practical skills include legal research, oral and written communication, counseling, negotiating, planning, and interviewing. Analytical skills involve fact analysis, case analysis and synthesis, statutory analysis, argumentation, and critical evaluation of legal and ethical issues.”³¹

Since the 1970s, legal education has experienced a tremendous growth in the number of courses devoted to teaching law students these practical skills, like legal research, oral advocacy, and negotia-

that “all such modifications somehow miss the mark because they tend to address symptoms rather than the root causes of the problem.” *Id.* at 131; *cf. supra* note 11 (discussing recent curricular changes at Harvard Law School).

28. AMERICAN BAR ASSOCIATION SECTION OF LEGAL EDUCATION AND ADMISSIONS TO THE BAR, LEGAL EDUCATION AND PROFESSIONAL DEVELOPMENT—AN EDUCATIONAL CONTINUUM: REPORT OF THE TASK FORCE ON LAW SCHOOLS AND THE PROFESSION: NARROWING THE GAP 7-10 (1992) (THE “MACCRATE REPORT”). The *MacCrate Report* provided that its objective was to:

seek[] to define the lawyering skills and professional values with which every lawyer should be familiar prior to assuming the full responsibilities of a member of the legal profession – i.e. prior to accepting the ultimate responsibility for representing a client or, in those contexts in which a lawyer acts without a client (such as situations in which a lawyer serves as an advisor to a governmental agency or legislative committee), prior to accepting the ultimate responsibility for making professional judgments or giving legal advice.

Id.

29. *Id.* at 138-40.

30. Saunders & Levine, *supra* note 17, at 125.

31. *Id.*

tions.³² Law schools also instituted clinical programs in order to enable students to apply their analytical skills in a real-life context.³³ Schools developed such programs, in part, because law firms and other legal employers complained that law students enter the work world inadequately trained in the practical skills needed to succeed in law practice.³⁴

Such instruction can effectively serve to teach law students particular skills that are important in many practice contexts. Saunders and Levine therefore contend that the distinction between skills is artificial given that legal problem solving involves both practical and analytical aspects.³⁵ However, the distinction does have merit in that more fundamental cognitive and analytical thought processes lie at the heart of the practical skills. For instance, the practical skill of legal research necessarily involves analytical skills like statutory or case synthesis and analysis, but the reverse is not true. Certain skills definitely serve as the foundation for others.³⁶ Law students cannot become effective

32. In a November 2005 article in the *AALS Newsletter*, N. William Hines, then president of the AALS (the Association of American Law Schools) listed the increase in professional skills training in law schools as the fourth most important change in legal education in the last 25 years. See Hines, *supra* note 27, at 2 (November 2005). See also Robert MacCrate, *Symposium on the 21st Century Lawyer: Keynote Address—The 21st Century Lawyer: Is There a Gap to be Narrowed?*, 69 WASH. L. REV. 517, 520 (1994) (“The growth of skills and values curriculum in law schools during the 1970s is unquestionably the most significant development in legal education in the post-World War II era.”).

33. See, e.g., Saunders & Levine, *supra* note 17, at 130-31; MACCRATE REPORT, *supra* note 28, at 520.

34. Cf. Saunders & Levine, *supra* note 17, at 131. Numerous scholars have criticized these curricular changes as merely “ad hoc.” E.g., *id.* at 130; STEVENS, *supra* note 20, at 512-17 (describing curriculum as ad hoc); see also Keith A. Findley, *Rediscovering the Lawyer School: Curricular Reform in Wisconsin*, 24 WIS. INT’L L.J. 295, 308-09 (2006) (discussing how clinical and skills-based programs are still not well integrated into law schools’ curricula and overall pedagogical approaches); Anita L. Morse, *Research, Writing, and Advocacy in the Law School Curriculum*, 75 LAW LIBR. J. 232, 249 (1982) (calling curricular reforms “fragmented and put into place by different constituencies . . . to promote a particular interest rather than . . . to create a comprehensive model of legal education”); John H. Mudd, *Academic Changes in Law Schools*, 29 GONZ. L. REV. 29, 31 (1994) (reasoning that such curricular changes are made “without careful coordination or regard for their overall effect,” which has “caused others to criticize the resulting lack of curricular coherence”). Such criticism of law school curricula is not new. See, e.g., ALFRED Z. REED, TRAINING FOR THE PUBLIC PROFESSION OF THE LAW 252 (1921) (describing the law school curriculum as “a mere aggregate or conglomerate of independently developed units”).

35. Saunders & Levine, *supra* note 17, at 131.

36. See ButleRitchie, *supra* note 2, at 31-34 (contending that the cognitive aspects of legal thinking are primary).

lawyers solely by learning practical skills; students must first “think like lawyers in order to act like lawyers.”³⁷

Discussing the relative import of practical and analytical skills parallels the familiar debate between the role of theory/doctrine and practice/application in legal education.³⁸ The simple answer to the debate is that law schools should do both. In their instruction of practice, however, law schools must be intentional in explaining the theory behind the practice. Too often law students learn that they must think critically and analytically without really knowing what such thinking entails in the first place. Some legal scholarship has focused on the analytical skills relevant to thinking like a lawyer because those skills are more closely linked with the cognitive processes associated with legal thinking.³⁹ However, these analytical skills, at least as defined above, are too context or doctrinal specific; and they fail to isolate the basic cognitive thought processes that lie at the heart of legal thinking.

IV. PRIOR RESEARCH ON THE COGNITIVE ATTRIBUTES OF LAW STUDENTS AND LAWYERS

In an effort to uncover attributes of legal thinking, scholars have employed empirical methodologies to identify personality and cognitive traits present in lawyers and law students. Although lawyers do not think in ways that are categorically different from those in other professions, research has confirmed that lawyers and law students do tend to think in particular ways.⁴⁰ Most extensively, scholars have researched how lawyers score on the Myers-Briggs Type Indicator (“MBTI”) versus the general population. These scholars have uni-

37. See Saunders & Levine, *supra* note 17, at 183. Definitions like Dean Bice’s focus on the practical skills and problematically limit thinking like a lawyer to what lawyers often do. See *supra* note 8 and accompanying text; see also Saunders & Levine, *supra* note, at 130-31.

38. See Saunders & Levine, *supra* note 17, at 126 n.14 (discussing the debate).

39. See, e.g., *id.* at 125 (observing that analytical skills are considered more often than practical skills as components to thinking like a lawyer because the analytical skills are more directly tied with cognitive processes); ButleRitchie, *supra* note 2, at 31-34 (analyzing the “narrow notion” of thinking like a lawyer, which focuses on the cognitive aspects of the process).

40. See, e.g., Chris Guthrie, *The Lawyers’ Philosophical Map and the Disputant’s Perceptual Map: Impediments to Facilitative Mediation and Lawyering*, 6 HARV. NEGOT. L. REV. 145, 155-56 (2001) (asserting that “[m]ost lawyers . . . approach the world in an abstract, analytical way” and “are deemed so rational and analytical, in fact, that ‘brain researchers have selected lawyers when they wished to test an occupational group that is characteristically analytical in its preferred mode of thought’”) (citations omitted)).

formly found that lawyers tend to be “thinkers,” as opposed to “feelers,” at a greater rate than in the general population.⁴¹

More recently, scholars have researched the learning styles of lawyers and law students to determine if they show an orientation for particular styles. One well-tested learning style assessment is the Kolb Learning Style Inventory (“KLSI”). The KLSI posits that individuals in the legal profession tend to possess an “assimilating” learning style. The KLSI observes that “people with this learning style are best at understanding a wide range of information.”⁴² The KLSI adds that people with this style “probably are less focused on people and more interested in abstract ideas and concepts. Generally, people with this learning style find it more important that a theory have logical soundness than practical value.”⁴³ Thus, although this style points primarily to the way many lawyers absorb new information, it also explains what lawyers do with new information once they absorb it, in that they strive to “put[] it into concise, logical form.”⁴⁴ Recent research on law students has confirmed the KLSI position by finding that more stu-

41. Susan Daicoff, *Articles Lawyer, Know Thyself: A Review of Empirical Research on Attorney Attributes Bearing on Professionalism*, 46 AM. U. L. REV. 1337, 1408 (1997) (reporting that a disproportionately high percentage of lawyers and law students are “thinkers” on the MBTI, as compared with the general population and with other college students); Larry Richard, *The Lawyer Types*, 79 A.B.A. J. 74, 76 (1993) (observing that 81 percent of male lawyers tested through use of the MBTI reported a preference for “thinking” over “feeling,” as did 66 percent of female lawyers tested); Don Peters, *Forever Jung: Psychological Type Theory, the Myers-Briggs Type Indicator and Learning Negotiation*, 42 DRAKE L. REV. 1, 17 (1993) (recounting that 80 percent of the more than 600 University of Florida law students tested with the MBTI preferred a “thinking” orientation). This orientation to “thinking” as opposed to “feeling” gives rise to the issue of the place of emotion in legal thinking. Often argumentation in the nonlegal arena appeals to the emotions of the arguers or the audience. To support their position, debaters underscore how they “feel” about a particular position, or similarly, how their audience should “feel” about the position. They are not highlighting generalized accepted truths that support their positions but are instead appealing to the emotional underpinnings of a particular argument. Lawyers, of course, sometimes support their position by emotional appeals, particularly in trial work before a jury. However, they rarely support their legal arguments by such emotional appeals because, as L.H. LaRue highlights, they are to argue “from within the rules.” See *infra* notes 215-216 and accompanying text.

42. DAVID A. KOLB, *THE KOLB LEARNING STYLE INVENTORY* 7 (3d ed. 1999).

43. *Id.*

44. See *id.*

dents tested have the assimilating learning style than any of the other three KLSI learning styles.⁴⁵

The fact that lawyers tend to have this learning style does not imply that lawyers *should* have this learning style. Research that merely summarizes how lawyers learn and think is descriptive, not normative. What is enlightening from a normative perspective, however, is whether this research coincides with surveys in which lawyers and law students describe what they believe it means to “think like a lawyer.” Several scholars have conducted surveys of practicing lawyers to determine their opinions on the relative importance of various skills to law practice.⁴⁶ A theme in these studies is that lawyers believe it is important to be able to integrate factual and legal knowledge and to exercise good judgment in working from that integrated understanding.⁴⁷ Reviewing these surveys highlights other skills that lawyers deem important to effective lawyering.

Specifically, some of the studies underscore that lawyers believe that the practical components of “thinking like a lawyer” are more important than the cognitive components. For instance, a study of young Chicago lawyers revealed that they believe that the most important lawyering skills are “oral communication,” “written communication,” and “instilling others’ confidence in you.”⁴⁸ After these skills, the lawyers ranked the following cognitive components highly: “ability in legal analysis and legal reasoning” (ranked fourth out of 17 skills) and “ability to diagnose and plan solutions for legal problems” (ranked sixth).⁴⁹ In other surveys, lawyers actually ranked cognitive components even more highly. For example, a study of Montana lawyers found that they ranked “the trait of judgment” and “capacity to analyze” as most important.⁵⁰ Similarly, in a survey of the alumni of six “representative” law schools, participants stated that the “ability to

45. See DeGroff & McKee, *supra* note 3, at 520-21 (finding that 45 percent of the respondents reflected a preference for the assimilating style after surveying 177 incoming students at Regent University School of Law).

46. See Gary L. Blasi, *What Lawyers Know: Lawyering Expertise, Cognitive Science, and the Functions of Theory*, 45 J. LEGAL EDUC. 313, 326 (1995) (describing surveys).

47. See *id.*

48. Bryant G. Garth & Joanne Martin, *Law Schools and the Construction of Competence*, 43 J. LEGAL EDUC. 469, 473 (1993).

49. See *id.* “Drafting legal documents” ranked fifth in terms of importance. *Id.* Interestingly, “knowledge of substantive law” ranked seventh behind these other skills. *Id.*

50. John O. Mudd & John W. LaTrielle, *Professional Competence: A Study of New Lawyers*, 49 MONT. L. REV. 11, 18 (1988).

analyze and synthesize law/facts” was the most important skill.⁵¹ Other studies have found an emphasis in cognitive skills relating to the facts of a legal problem. For instance, a different study of Chicago lawyers found that practitioners ranked as most important the skills of “fact gathering” and the “capacity to marshal facts and order them so that concepts can be applied.”⁵² A survey of California lawyers similarly found that the skills ranked most highly by the lawyers were “analyzing cases/legal research” and “investigating the facts of client’s case.”⁵³

In a survey more recent than those above, Professors Marjorie Shultz and Sheldon Zedeck at the University of California, Berkeley surveyed from 2001 to 2003 over 2000 individuals, including Boalt Hall alumni, students, faculty, affiliated judges, and clients of Boalt lawyers.⁵⁴ They asked these individuals to list the personal skills that make someone an effective lawyer.⁵⁵ They used the responses to generate a list of 26 factors, which they, in turn, are using to develop an alternative law school entrance test that can assess those factors. Survey respondents reported that both cognitive and practical skills were important; and similar to the older surveys, certain cognitive components, such as “analysis and reasoning” and “problem solving,” remained central.⁵⁶ “Fact finding,” which involves a mix of cognitive and practical skills and appeared in other surveys, also appeared on the list. However, different cognitive factors were reported as relevant to effective lawyering. Specifically, respondents listed “practical judgment,” “creativity/innovation,” and “ab[ility] to see the world through the eyes of others” as important skills.⁵⁷

Finally, although law students are not yet practicing lawyers, insight into how successful law students think is helpful in determin-

51. Leonard L. Baird, *A Survey of the Relevance of Legal Training to Law School Graduates*, 29 J. LEGAL EDUC. 264, 273 (1978).

52. FRANCES KAHN ZEMAS & VICTOR G. ROSENBLUM, *THE MAKING OF A PUBLIC PROFESSION* 123-25 (1981).

53. Robert A. D. Schwartz, *The Relative Importance of Skills Used by Attorneys*, 3 GOLDEN GATE U. L. REV. 321, 325 (1973).

54. See electronic mail from Prof. Shultz to the author, January 18, 2007; see also Linley Erin Hall, *What Makes for Good Lawyering? A Multi-Year Study Looks Beyond the LSAT*, TRANSCRIPT, Summer 2005, at 22, 23 (discussing the project).

55. See 26 *Effectiveness Factors*, <http://www.law.berkeley.edu/beyondlsat/effectiveness.pdf> (last visited January 17, 2007); see also Hall, *supra* note 54, at 23-24.

56. *Id.* Profs. Shultz and Zedeck did not rank the 26 factors. See electronic mail from Prof. Shultz to the author, January 18, 2007.

57. 26 *Effectiveness Factors*, *supra* note 55. The list includes other factors, like “developing relationships,” that do not directly relate to the cognitive components of legal thinking.

ing what it means to “think like a lawyer” because legal instruction is designed to develop that cognitive skill.⁵⁸ In 1999 and 2000, the Law School Admission Council (“LSAC”) surveyed 3,525 respondents (3,048 students and 457 faculty) from 41 law schools to determine “what academic tasks are fundamental to success in law school courses” (the “LSAC Study”).⁵⁹ To answer this question, the LSAC asked the respondents to judge the importance of specific tasks in law school courses. The respondents rated 57 tasks in 14 skill-related categories on a scale of 1-4, with 4 being “highly important” and 1 being “not important/not applicable.”⁶⁰

Respondents answered that the following tasks were most important:

All seven tasks associated with “Analyzing Cases or Legal Problem”:

- identifying key legal facts and issues (3.6),
- identifying a principle or rule of law operating in a case (3.6),
- applying a case, rule or legal statute to a hypothetical case (3.6),
- identifying the basis for a legal decision (3.5),
- interpreting statutes in relation to a case or problem (3.5),
- identifying and evaluating the legal arguments in a case (3.4), and
- identifying similarities and differences between cases and problems (3.4)

Two of the ten Writing tasks:

- writing concisely and with clarity (3.5), and
- arguing logically and persuasively (3.4)

Two of the four Reasoning tasks:

- deducing a legal conclusion (3.5), and
- generalizing or synthesizing rules from cases (3.4)

One of two Problem Solving tasks:

- identifying a legal problem and the legal issues involved (3.6)

One of five Reading tasks:

- reading assigned materials (3.5)

One of four Listening tasks:

58. See *supra* note 16 and accompanying text.

59. Stephen W. Luebke, et al., *Final Report: LSAC Skills Analysis Law School Task Survey 1* (Law School Admission Council Computerized Testing Report 02-02, May 2003), <http://members.lsacnet.org/> [hereinafter *LSAC Study*].

60. *Id.*

- identifying the key in lectures and discussions (3.4).⁶¹

Several of these skills, like the reading and writing tasks, pertain to practical skills. Other skills, however, relate to analytical processes, such as the reasoning tasks and many of the case analysis tasks. This survey thus provides insight into the critical cognitive components of what it means to think like a lawyer.⁶²

V. THINKING SKILLS MEASURED BY THE LSAT AND BAR EXAMINATIONS

An additional source to identify the skills relevant to thinking like a lawyer are the examinations that serve as rites of the passage into law school and into the practice of law, the LSAT and the bar examination.

A. Skills Measured by the LSAT

Despite its critics, the LSAT remains a statistically significant predictor of law school grades⁶³ and bar passage.⁶⁴ The LSAC, which designs and administers the test, states that the LSAT “provides a standard measure of acquired reading and verbal reasoning skills that law schools can use as one of several factors in assessing applicants.”⁶⁵

61. *Id.* at 11-12. It is noteworthy that, despite popular conceptions of what lawyers and law students do, communicating orally was not ranked as highly as these other tasks. *See id.* at 12-13.

62. Relating the analytical skills important to law school success to the analytical skills important to thinking like a lawyer raises the question of whether law school adequately prepares students for the cognitive skills necessary for effective lawyering. Stephen Friedman and other critics have contended that law schools are not succeeding in this regard. *See Friedman, supra* note 16, at 82-84. Even critics like Friedman, however, contend that the analytical skills important to law school success make up at least some of the analytical skills important to thinking like a lawyer. *See id.* at 84. This article thus assumes that such law school skills represent some of the skills important to legal thinking generally.

63. *See, e.g., Linda F. Wightman, Beyond FYA: Analysis of the Utility of LSAT Scores and UGPA for Predicting Academic Success in Law School*, Law School Admission Council Research Report 99-05 at 3 (2000) (reporting that research studies and LSAC Correlation Studies have found law students' LSAT scores to be correlated positively with their first-year grades).

64. LAW SCHOOL ADMISSION COUNCIL, LSAC NATIONAL LONGITUDINAL BAR PASSAGE STUDY (2004) [hereinafter BAR PASSAGE STUDY] (reporting that both law school grade-point average and LSAT score were “the strongest predictors of bar examination passage for all groups studied”).

65. LAW SCHOOL ADMISSION COUNCIL, LAW SCHOOL ADMISSION REFERENCE MANUAL 2006-07 at 7 (2006) [hereinafter LSAC REFERENCE MANUAL]. The American Bar Association (“ABA”) does not obligate ABA-accredited schools to require their applicants to complete the LSAT prior to admission. Standard 503 of the ABA’s *Standards for Approval of Law Schools* provides, “A law school shall require each applicant for admission as a first year J.D. student to take a valid and reliable

LSAC adds specifically that the test is designed to “measure skills that are essential for success in law school,” and it identifies the following relevant skills:

- 1) “the reading and comprehension of complex texts with accuracy and insight;”
- 2) “the organization and management of information and the ability to draw reasonable inferences from it;”
- 3) “the ability to think critically;” and
- 4) “the analysis and evaluation of the reasoning and arguments of others.”⁶⁶

To assess these skills, the test measures:

- 1) reading comprehension, including the ability “to read carefully and accurately, to determine the relationships among various parts of the reading selection, and to draw reasonable inferences from the material in the selection”;
- 2) analytical reasoning, including the ability “to understand a structure of relationships and to draw logical conclusions about the structure”; and
- 3) logical reasoning, including the ability “to understand, analyze, criticize, and complete a variety of arguments”⁶⁷

Scholars have reasoned that these skills measured by the LSAT “capture the essence what it means to do legal analysis or to ‘think like a lawyer.’”⁶⁸ More specifically, these skills reflect an orientation for the cognitive components to legal thinking as opposed to the practical components. Such an orientation may simply be a function of the fact that the cognitive components are easier to test in a standardized fash-

admission test to assist the school and the applicant in assessing the applicant’s capability of satisfactorily completing the school’s educational program.” AMERICAN BAR ASSOCIATION SECTION OF LEGAL EDUCATION AND ADMISSIONS TO THE BAR, STANDARDS FOR APPROVAL OF LAW SCHOOLS, Standard 503 (2006-07). Interpretation 503-1 adds, “A law school that uses an admission test other than the Law School Admission Test sponsored by the Law School Admission Council shall establish that such other test is a valid and reliable test to assist the school in assessing an applicant’s capability to satisfactorily complete the school’s educational program.” *Id.* at Interpretation 503-1.

66. LSAC REFERENCE MANUAL, *supra* note 65, at 7.

67. LAW SCHOOL ADMISSION COUNCIL, 2007-2008 LSAT & LSDAS INFORMATION BOOK 27, 40, 49 (2007), available at http://www.lsat.org/pdfs/2007-2008/Infobook_text2007web.pdf. Beginning with the test in June 2007, the LSAT will introduce a new question type in the reading comprehension section. This new type will require students to read two short passages and answer questions about the passages, primarily questions about how they relate to each other. *See id.* at 28.

68. DeGroff & McKee, *supra* note 3, at 504; *see also* Marjorie M. Shultz, *Expanding the Definition of Merit*, TRANSCRIPT, Summer 2005, at 25, 26 (stating that the cognitive skills tested on the LSAT are important to “being a good lawyer”).

ion.⁶⁹ However, if the focus were due only to ease of testing, the correlation between LSAT scores and first-year grades would not be significant unless law schools similarly focus on such cognitive skills, at least in the first year. Therefore, the LSAT's orientation towards cognitive components likely does point to a similar emphasis in legal reasoning as evaluated in the law school context.⁷⁰

B. Skills Tested by Bar Examinations

The LSAT's orientation to the cognitive components would not be relevant to how lawyers, as opposed to law students, think were it not for the fact that LSAT scores positively correlate with bar passage.⁷¹ Thus, although the LSAT is purportedly the test to measure "skills that are essential to law school,"⁷² bar examinations likely test similar skills because such skills are important to lawyering.⁷³

The format of the bar exam varies from state to state, but all but two states test applicants on one day using the Multistate Bar Examination (MBE), which is designed by the National Conference of Bar Examiners (National Conference or NCBE).⁷⁴ On the second day, those states use a state-specific examination format often consisting mostly of essay questions. A growing number of states also use at least a portion of one or both of the other tests designed by the

69. See Susan Case, Presentation entitled "Framing the Issues" at the National Conference of Bar Examiners Academic Support Conference (Aug. 29, 2006).

70. Some scholars contend that the LSAT concentrates inappropriately on cognitive skills. For instance, as discussed above, Marjorie Shultz and Sheldon Zedeck are developing a law school entrance examination that will serve as an alternative to the LSAT. See *supra* notes 54-57 and accompanying text. In their test, they seek to evaluate applicants' abilities along 26 factors that include more than cognitive skills. See *id.* See also Shultz, *supra* note 68, at 26.

71. See BAR PASSAGE STUDY, *supra* note 64 and accompanying text. This assertion assumes that the current format of bar exam accurately measures applicants' preparedness to practice law. Fully discussing this assumption is outside the scope of this article, but many scholars have written extensively on how they disagree with the assumption. See, e.g., Kristen Booth Glen, *Thinking Out of the Bar Exam Box: A Proposal to "MacCrate" Entry to the Profession*, 23 PACE L. REV. 343 (2003).

72. LSAC REFERENCE MANUAL, *supra* note 65, at 7.

73. Cf. NATIONAL CONFERENCE OF BAR EXAMINERS, THE MBE 2007 INFORMATION BOOKLET 2 (2006) available at <http://www.ncbex.org/multistate-tests/mbe> (last visited Feb. 22, 2007) ("The MBE is but one of a number of measures that a board of bar examiners may use in determining competence to practice law.").

74. The District of Columbia also uses the MBE. The two states that do not use the MBE are Louisiana and Washington. See The National Conference of Bar Examiners, *Jurisdictions Using the MBE in 2005*, http://www.ncbex.org/fileadmin/mediafiles/downloads/Bar_Admissions/2005stats.pdf (last visited Sept. 6, 2006) [hereinafter National Conference of Bar Examiners, 2005 Statistics].

National Conference, the Multistate Essay Exam (MEE) and the Multistate Performance Test (MPT).⁷⁵

1. *The National Bar Examinations*

Given the prevalence of these national tests, particularly the MBE, assessing what those tests measure may provide insight into the cognitive skills necessary to think like a lawyer. The MBE is an objective, six-hour examination containing 200 multiple-choice questions in the following areas: Constitutional Law, Contracts, Criminal Law and Procedure, Evidence, Real Property, and Torts.⁷⁶ The emphasis of the exam is primarily on the applicant's substantive knowledge in the topic areas tested.⁷⁷ However, the National Conference states that the questions often assess more than the applicant's substantive knowledge of the law: "Many of the questions require applicants to analyze the legal relationships arising from a fact situation or to take a position as an advocate. Some questions call for suggestions about interpreting, drafting, or counseling that might lead to more effective structuring of a transaction."⁷⁸ The first sentence of this description, like the description of the LSAT, points to the cognitive components relevant to the skill of legal thinking.⁷⁹ The phrase "analyze the legal relationships arising from a fact situation" emphasizes that legal thinking

75. The National Conference also designs the Multistate Professional Responsibility Exam (MPRE), but this exam is not customarily considered part of the bar examination because applicants can take it at times separate from when they take the other components. Including D.C., the following states use at least a portion of the MEE: Alabama, Arkansas, Hawaii, Idaho, Illinois, Kansas, Kentucky, Mississippi, Missouri, Montana, Nebraska, New Hampshire, North Dakota, Rhode Island, South Dakota, Utah, and West Virginia. See The National Conference of Bar Examiners, *2005 Statistics*, *supra* note 73 (including data through 2006). Including D.C., the following states use at least a portion of the MPT: Alabama, Alaska, Arkansas, Colorado, Delaware, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Maine, Minnesota, Mississippi, Missouri, Maryland, Montana, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Ohio, Oregon, Rhode Island, South Dakota, Texas, Utah, Vermont, and West Virginia. See *id.*

76. The National Conference of Bar Examiners, *Description of the MBE*, <http://www.ncbex.org/multistate-tests/mbe/mbe-faqs/description> (last visited Sept. 6, 2006).

77. See *id.* ("The questions on the examination are designed to be answered by applying fundamental legal principles rather than local case or statutory law. A given question may indicate the applicable statute, theory of liability, or comparable principle of law.")

78. *Id.*

79. The second sentence points to the practical components to legal thinking. The fact that the National Conference tests such components does not undercut the importance of the cognitive components; it just affirms Saunders and Levine's

involves finding a nexus between facts in a situation and the relevant legal rules.

In describing the MEE, the National Conference states:

The purpose of the MEE is to test the applicant's ability to: identify legal issues raised by a hypothetical factual situation; separate material which is relevant from that which is not; present a reasoned analysis of the relevant issues in a clear, concise, and well organized composition; and demonstrate an understanding of the fundamental legal principles relevant to the probable solution of the issues raised by the factual situation. . . . The primary distinction between the MEE and the MBE is that the MEE requires the applicant to demonstrate an ability to communicate in writing effectively.⁸⁰

Although the National Conference reasons that the primary distinction involves the written format, the nature of the essay questions on the MEE enables the test to assess cognitive skills in addition to those tested on the MBE. First, applicants must identify the legal issues and separate relevant from irrelevant information.⁸¹ MBE questions are more directed than those in the MEE because the "call" or "stem" of the MBE questions are more specific.⁸² Thus, in light of the MEE's emphasis on issue identification and relevance assessment, culling through a factual scenario to discover legal issues and assess relevance must be important lawyering skills.

supposition that successful lawyering involves more than cognitive skills. See Saunders and Levine, *supra* notes 30-31 and accompanying text.

80. The National Conference of Bar Examiners, *Description of the MEE*, <http://www.ncbex.org/multistate-tests/mee/mee-faqs/description-of-the-mee> (last visited Sept. 6, 2006). The National Conference also develops the MPT, in which applicants review a hypothetical case file and then complete based on the file a lawyering task, such as a memorandum to the supervising partner. The National Conference provides that the MPT requires applicants to "(1) sort detailed factual materials and separate relevant from irrelevant facts; (2) analyze statutory, case, and administrative materials for relevant principles of law; (3) apply the relevant law to the relevant facts in a manner likely to resolve a client's problem; (4) identify and resolve ethical dilemmas, when present; (5) communicate effectively in writing; (6) complete a lawyering task within time constraints." The National Conference of Bar Examiners, *Description of the MPT*, <http://www.ncbex.org/multistate-tests/mpt/mpt-faqs/description1> (last visited Sept. 6, 2006). The national bar review service, BAR/BRI, provides on its website that the MPT tests applicants' "ability to 'think like a lawyer.'" BAR/BRI Bar Review, available at http://www.barbri.com/app.aspx?cmd=bei_SubjectsTested&state=NY (last visited April 13, 2007).

81. *Description of the MEE*, *supra* note 80.

82. See STEVEN R. FINZ, *THE FINZ MULTISTATE METHOD 3* (2003) (providing a diagram of a typical MBE question which shows the "stem" or "call" of the question).

2. *The State Bar Examinations*

Although nearly all states, including the District of Columbia (D.C.), provide a list of doctrinal subjects their bar examinations test,⁸³ a review of materials disseminated by all states and D.C. reveals that thirty states and D.C. do not address what particular analytical skills the state-specific portions of their examinations are intended to measure.⁸⁴ Those states either do not address what skills are relevant to their examination or only refer to skills tested on the national tests those states use, like the MBE, MEE, and the MPT.⁸⁵

The remaining twenty states provide some insight into the skills tested on their state bar examinations. Most of these states discuss those skills in the context of describing how the bar examiners evaluate applicants' essay answers. A review of the information provided by these twenty states shows that many of them describe similarly the types of skills they assess. In sum, these patterns point to particular cognitive skills that state bar examiners evidently conclude are important to the practice of law.

First, the states nearly uniformly highlight that the applicants must discern relevant from irrelevant material to identify the legal issues.⁸⁶ Some of these states more specifically provide that applicants must analyze and discern the relevant *facts* in the question.⁸⁷ Second,

83. See BAR/BRI Bar Review, <http://www.barbri.com> (providing information on the bar examinations of all fifty states and D.C., including information on what subjects are tested) (last visited Sept. 7, 2006).

84. This review was based on an analysis of each state's website on its respective bar exam. If a state did not have a relevant website, the state was contacted by phone to obtain any pertinent information.

85. See, e.g., Texas Board of Law Examiners, *Texas Bar Examination General Instructions*, http://www.ble.state.tx.us/exam_info/tbe_instructions2.htm (last visited Sept. 6, 2006) (discussing only the skills relevant to the MPT); Commonwealth of Massachusetts Board of Bar Examiners, *Information Relating to the Admission of Attorneys in Massachusetts*, <http://www.mass.gov/bbe/barapprulesaug2002.pdf> (last visited Sept. 6, 2006) (not providing any state specific information but linking potential applicants to the National Conference website for information on the national tests).

86. See, e.g., The State Bar of California, *Description of the California Bar Examination: General Bar Examination and Attorney's Examination*, <http://calbar.ca.gov/calbar/pdfs/admissions/ex1020900.pdf> (last visited Apr. 13, 2007).

87. See, e.g., Alaska Bar Association, *Instructions to Alaska Bar Exam Applicants*, <http://www.alaskabar.org/index.cfm?ID=4990> (last visited Sept. 6, 2006) ("Answers to essay questions are expected to demonstrate the ability to analyze the facts presented by the questions, to select the material facts, to discern the points upon which the case turns, and to present the response in a logical, well-organized, literate manner."); State Board of Law Examiners, *Grading the Maryland Bar Examination*, <http://www.courts.state.md.us/ble/examgrading.html#Passing%20Criteria/> (last visited Sept. 6, 2006)

many states emphasize that applicants must demonstrate good “logic” and “analysis” and good “reasoning” ability.⁸⁸ Two of these states

(“Assignment of a raw score to an Essay answer will be evaluated on the basis of how well the examinee: Demonstrates an understanding of the significance of relevant and material facts; Applies legal principles to the relevant and material facts; and Articulates appropriate reasoning for reaching conclusions which respond to the question.”). In an interview of three state bar examiners at a conference sponsored by the NCBE, all three emphasized that thinking like a lawyer, as tested on their bar examinations, requires applicants to discern the relevant from the irrelevant facts in a given scenario. Interview with Margaret Fuller Corneille, Director, Minnesota Board of Bar Examiners, Eleanor Mitchell Hunter, Executive Director, Florida Board of Bar Examiners, and Diane Bosse, Member, New York Board of Bar Examiners at the NCBE Academic Support Conference (Aug. 30, 2006).

88. See, e.g., Alabama Bar, *Rules Governing Admission to Alabama State Bar*, <http://www.alabar.org/public/admissions/RulesAdmissions2003.pdf> (last visited Sept. 6, 2006) (“Essay examination and performance-test questions will test the applicant’s ability to reason logically, to analyze legal problems accurately, to demonstrate a knowledge of the fundamental principles of law, to be able to apply those principles, and to perform basic legal tasks.”); Arkansas Judiciary, *Arkansas Bar Examination Arkansas Essay Questions and Top Examination Papers*, http://courts.state.ar.us/courts/ble_exam_essay.html (last visited Sept. 6, 2006) (noting that the essay answers are considered at the top of the pool are based on various factors including the “perceived writing, analytical, and reasoning ability, as well as knowledge of the law”); Florida Board of Bar Examiners, *Rules of the Supreme Court Relating to Admission to the Bar*, <http://www.floridabarexam.org/> (follow “Rules” hyperlink) (last visited Sept. 6, 2006) (“The General Bar Examination shall test the applicant’s ability to reason logically, to analyze accurately the problem presented, and to demonstrate a thorough knowledge of the fundamental principles of law and their application.”); Idaho State Bar & Idaho Law Foundation, Inc., *Bar Examination Grading Standards & Procedures*, <http://www2.state.id.us/isb/PDF/Grading%20Standards.pdf> (last visited Sept. 6, 2006) (“The Bar examination should test the applicant’s ability to reason logically, to analyze accurately, the problems presented to him and to demonstrate thorough knowledge of the fundamental principles of law and their applications. The examination should not be designed primarily for the purpose of testing information, memory, or experience.” (quoting National Conference of Bar Examiners: Canon 16, Bar examination Grading Standards and Procedures)); Kentucky Office of Bar Admissions, <http://www.kyoba.org/apps%20and%20forms/applications/bar%20exam/exam%20information.htm> (last visited Sept. 6, 2006) (“When taking the essay portion of the exam, please note that the value of an answer depends not so much upon the correctness of the conclusion(s) as upon the recognition of issues and the quality of the discussion that evidences an ability to apply the law to the facts presented and to reason in a logical manner in arriving at a conclusion.”); Minnesota State Board of Law Examiners, *Rules for Admission to the Bar*, <http://www.ble.state.mn.us/rules.html> (last visited Sept. 6, 2006) (“Applicants must meet the following essential eligibility requirements for the practice of law: (1) The ability to reason, recall complex factual information and integrate that information with complex legal theories. . . .”); The Mississippi Supreme Court, *Rules Governing the Admission to the Bar*, <http://www.mssc.state.ms.us/rules/RuleText.asp?RuleTitle=RULE+IX%2E+>

EXAMINATION&IDNum=10 (last visited Sept. 6, 2006) (“Essay and performance test questions will test the applicant’s ability to reason logically, to analyze accurately legal problems, and to demonstrate a knowledge of the fundamental principles of law and their application, and to perform basic legal tasks.”); Missouri Board of Law Examiners, *FAQ About Admission*, <http://www.courts.mo.gov/SUP/index.nsf/48152408327899bc8625673500728856/22ecdec61d35de8186256d9800505963?OpenDocument> (last visited Sept. 6, 2006) (“The examination does not seek a recitation of legal rules by rote, but rather a demonstration of knowledge of legal principles and the ability to think and reason by applying those principles to the facts so as to come to a logical and coherent conclusion.”); Nebraska State Bar Commission, *Admission of Attorneys*, <http://supremecourt.ne.gov/rules/pdf/attyadm-02.pdf> (last visited Apr. 13, 2007) (“In addition to the admission requirements otherwise established by these rules, the essential eligibility requirements for admission to the practice of law in Nebraska are . . . (e) The ability to reason, analyze, and recall complex factual information and to integrate such information with complex legal theories”); State Bar of Nevada, *Information Regarding the Bar Examination for the State Bar of Nevada*, <http://www.nvbar.org/PDF/Requirements%20Memo.pdf> (last visited Sept. 6, 2006) (“The [Nevada] Performance Test question(s) may test applicants on their knowledge of the following skills: problem solving, legal analysis and reasoning, factual analysis, communication, organization and management of a legal task, and recognizing and resolving ethical dilemmas.”); New York State of Bar Examiners, *The Bar Examination*, <http://www.nybarexam.org/barexam.htm> (last visited Sept. 6, 2006) (“Each essay question is designed to test the applicant’s ability to analyze a given set of facts, to identify the issues involved and the applicable principles of law, and to reason therefrom to a sound conclusion.”); Oregon State Bar, *Answers to Questions about the Bar Admissions Process*, http://www.osbar.org/_docs/admissions/06Q&A.pdf (last visited Apr. 13, 2007) (“The examination does not seek a recitation of legal rules by rote, but rather a demonstration of knowledge of legal principles and the ability to think and reason by applying those principles to the facts, so as to come to a logical and coherent conclusion.”); Pennsylvania Board of Law Examiners, *Passing Standards*, http://www.pabarexam.org/Bar_Examination/Passing_Standards.htm (last visited Sept. 6, 2006) (“Please note that the value of an essay answer depends . . . upon the recognition of issues and the quality of the discussion that evidences an ability to apply the law to the facts presented, and to reason in a logical manner in arriving at a conclusion.”); The Board of Bar Examiners, *BBE Rules and Regulations*, <http://www.vermontjudiciary.org/BBE/bbelibrary/bberulesregs.pdf> (last visited Apr. 13, 2007) (“Applicants for admission must demonstrate the minimal professional competence necessary to engage in the practice of law including but not limited to: (1) knowledge of the statutory and common law, (2) capacity to analyze factual situations and apply principles of law to them, and (3) facility for written expression.”); Rules for Admission to The Practice of Law in West Virginia, Rule 3.2, *West Virginia Bar Examination*, <http://www.state.wv.us/wvsca/Bd%20of%20Law/lawprac.htm#Rule%203.2.%20West%20Virginia%20Bar%20Examination> (last visited Sept. 6, 2006) (“The purposes of the West Virginia Bar Examination are to test the applicant’s ability to reason logically, to analyze accurately the problems presented, to demonstrate a thorough knowledge of the fundamental principles of law and their application”); cf. New Jersey Board of Bar Examiners, *Suggestions on Answering Essay Questions*, <http://www.njbarexams.org/barbook/aic5.htm> (last visited Sept. 6, 2006) (“The essay portion of the bar examination is designed to test your ability to demonstrate a basic

underscore that credit is given for essay responses that are “well reasoned” or “logical” even if those responses ultimately reach the wrong legal conclusion.⁸⁹ The California Bar description exemplifies many of these trends and resembles the descriptions in other states:

[The essay] part of the examination is designed to measure an applicant’s ability to analyze legal issues arising from fact situations. Answers are expected to demonstrate the applicant’s ability *to analyze the facts of the question, to tell the difference between material facts and immaterial facts*, and to discern the points of law and fact upon which the question turns. . . . The answer should evidence the applicant’s ability to apply the law to the given facts and *to reason in a logical lawyer-like manner* from the premises adopted to a sound conclusion.⁹⁰

VI. BREAKING DOWN “THINKING LIKE A LAWYER” INTO COGNITIVE COMPONENTS⁹¹

The above discussion examines numerous sources that highlight various conceptions of what it means to “think like a lawyer,” specifically, what cognitive skills lawyers themselves believe are important as well as what cognitive skills legal examinations, like the LSAT and bar exam, are designed to address. The remainder of this article will draw upon that discussion and analyze the volume of literature that, to varying degrees, seeks to describe activity of thinking like a lawyer. To inform the literature analysis, this article will also consider the results of a written survey (the “Regent survey”) conducted in 2005, 2006, and 2007 of 283 second and third-year law students at Regent Univer-

and essential capacity for the practice of law. Your grade will be based on your ability to identify and analyze issues and to present an organized, coherent and well-written response within the prescribed format. The response must be lawyer-like.”)

89. See New York State of Bar Examiners, *supra* note 88 (“Appropriate credit is given in the grading of essay answers for well reasoned analyses of the issues and legal principles even though the final conclusion itself may be incorrect.”); Pennsylvania Board of Bar Examiners, *supra* note 88 (“[T]he value of an essay answer depends not so much upon the correctness of the conclusion(s), as upon the recognition of issues and the quality of the discussion that evidences an ability to apply the law to the facts presented, and to reason in a logical manner. . . .”). *But see* The Mississippi Supreme Court, *supra* note 88 (“The grade of the paper shall be measured by the reasoning power as well as by the correctness of incorrectness of the answer.”).

90. The State Bar of California, *supra* note 86 (*emphasis added*).

91. For a description of results of a survey of entering law students on what it means to “think like a lawyer,” see Saunders & Levine, *supra* note 17, at 145-95. In their essays on the topic, students frequently mentioned the following skills as relevant to thinking like a lawyer: “analysis, logical thinking, deductive reasoning, attention to detail, communication skills, and prediction.” *Id.* at 150.

sity School of Law in which they were asked to “describe . . . what it means to think like a lawyer.”⁹²

A. Overall Structure of Legal Thinking

1. Mental Problem Solving

Lawyers are problem solvers.⁹³ This emphasis on legal problem solving was underscored in the influential MacCrate Report, discussed above.⁹⁴ In the report, the ABA task force identified “problem solving” as the most important “fundamental lawyering skill.”⁹⁵

Skill § 1: Problem Solving

In order to develop and evaluate strategies for solving a problem or accomplishing an objective, a lawyer should be familiar with the skills and concepts involved in:

- 1.1 Identifying and Diagnosing the Problem;
- 1.2 Generating Alternative Solutions and Strategies;
- 1.3 Developing a Plan of Action;
- 1.4 Implementing the Plan;
- 1.5 Keeping the Planning Process Open to New Information and New Ideas.⁹⁶

Different lawyer surveys, the LSAC Study, and bar examiners’ commentary discussed above further reflect the centrality of problem solv-

92. In April 2005, April 2006, September 2006, January 2007, and February 2007, I surveyed 252 second and third-year Regent law students. I surveyed 249 of the students in several classes: Advanced Legal Reasoning, Analysis & Writing, Business Associations, Evidence, Family Law, Individual Federal Income Tax, and Professional Responsibility. I distributed the survey form to the students near the end of a class period and asked them to complete it and return it to me. I distributed the survey to the three other students outside of the class setting because they were not in any of the classes I surveyed. I have on file all 252 survey forms. The form for all students instructed them that participation in the survey was voluntary and did not affect their grade in that or any course. The specific question on survey read:

Please describe below what it means to “think like a lawyer.”

Use the back if needed. In your description, do not focus exclusively on any principles you have learned in this course. Rather, draw upon all your experiences in drafting your description.

93. See, e.g., Saunders & Levine, *supra* note 17, at 144; Gerald P. Lopez, *Lay Lawyering*, 32 UCLA L. REV. 1, 2 (1984) (“Lawyering means problem-solving.”).

94. See *supra* note 28 and accompanying text.

95. MACCRATE REPORT, *supra* note 28, at 138.

96. *Id.* These conclusions are similar to those in the Report on Lawyer Competencies approved by the ABA’s General Practice Section in 1991. That report lists “Engage in legal problem solving” as the most important specific competency expected of new general practice attorneys. See Steven C. Bahls, *Preparing General Practice Attorneys: Context-Based Lawyer Competencies*, 16 J. LEGAL PROF. 63, 80 (1991).

ing to legal thinking.⁹⁷ Several students in the Regent survey similarly emphasized problem solving as a fundamental aspect of thinking like a lawyer, and one student captured it well when she wrote that “to think like a lawyer is to think strategically.” This centrality of problem solving explains why the alternative law school entrance test Marjorie Shultz and Sheldon Zedeck are developing will test “practical judgment” by asking applicants to solve problems in various settings, including nonlegal contexts.⁹⁸

As noted above, lawyers also tend to be “thinkers.”⁹⁹ Legal problem solving therefore emphasizes mental processes; and as Gary Blasi observes, in such problem solving, lawyers should consider alternatives and “[t]hink before [they] act.”¹⁰⁰ In opining on the thinking skills law students should develop, Eric DeGroff and Kathleen McKee contend that law students should acquire a proficiency in carrying out the mental processes of decoding,¹⁰¹ cataloguing,¹⁰² retrieving,¹⁰³ and encoding,¹⁰⁴ relevant legal concepts and related factual material.¹⁰⁵ The first two processes of decoding (absorbing) and cataloguing (processing) relate to the individual’s learning style.¹⁰⁶ These processes also relate to thinking like a lawyer. However, because lawyers are problem solvers, they must also complete the last two processes to resolve the legal issue before them.

97. See *supra* notes 48-61 and accompanying text (describing surveys and LSAC Study) and notes 80, 88 (describing commentary on specific bar exams).

98. See Hall, *supra* note 54, at 24. Hall reports:

A sample question might ask the applicant to take the role of a team leader at a company. Because of frequent employee tardiness, the head of the company has decided that anyone who comes in late will be fired. One of the applicant’s team members, the smartest and hardest worker in the group, arrives five minutes late a few days later. What does the applicant do?

Id.

99. See *supra* note 41 and accompanying text.

100. Blasi, *supra* note 46, at 328.

101. DeGroff & McKee, *supra* note 3, at 508 & n.42 (“‘Decoding’ involves the in-processing of substantive law and related factual information.”).

102. *Id.* at 508 & n.43 (“‘Cataloguing’ involves identifying relationships of decoded information and creating a coherent framework within which to file it.”).

103. *Id.* at 508 & n.44 (“‘Retrieval’ entails the recall of relevant legal concepts when presented with a particular legal issue or problem.”).

104. *Id.* at 508 & n.45 (“‘Encoding’ requires the selection of legal concepts relevant to a particular legal issue or problem and the framing of an appropriate strategy to respond to the problem.”).

105. *Id.* at 508.

106. *Id.* at 508-16 (discussing the concept of “learning styles” and the extensive scholarship on the subject).

Various scholars discussing legal reasoning have offered formulas for assessing how lawyers solve problems. Most basically, one of the hallmarks of legal thinking is its emphasis not so much on the resolution of the problem, but on the process of getting to that resolution.¹⁰⁷ Legal educators thus underscore that law students need not just learn the content of laws but also the analytical processes used to apply that content to solve problems.¹⁰⁸ The ABA Model Rules of Professional Conduct similarly recognize in the official commentary to the rule on lawyer “competence” that competency includes analytical, problem solving skills that are independent of the lawyer’s knowledge of a particular area of law.¹⁰⁹

In sum, problem solving serves as the overall structure for legal thinking. This article therefore offers a flowchart in the Appendix that presents legal thinking in a problem solving framework. This framework includes the specific cognitive components to thinking like a lawyer, and the article will refer to specific steps outlined in the chart as particular components are discussed.

2. Asking Questions

As a general principle, lawyers must ask questions to solve the legal problems they confront; and legal education is designed, in part, to teach students which questions to ask.¹¹⁰ Scholars therefore have attempted to offer specific questions that legal thinkers can ask of all legal problems in order to reach defensible conclusions. Several scholars and surveys of lawyers emphasize that lawyers should first ask

107. See, e.g., BRAND & WHITE, *supra* note 3, at 140.

108. See SCHWARTZ, *supra* note 2, at 14 (“While students must know the rules and case holdings and must be able to identify legal questions, they are ultimately evaluated as law students and lawyers by how well they perform legal analysis.”).

109. The official comment to Rule 1.1 (“Competence”) provides:

A lawyer need not necessarily have special training or prior experience to handle legal problems of a type with which the lawyer is unfamiliar. A newly admitted lawyer can be as competent as a practitioner with long experience. Some important legal skills, such as *the analysis of precedent, the evaluation of evidence* and legal drafting, are required in all legal problems. Perhaps the most fundamental legal skill consists of *determining what kind of legal problems a situation may involve*, a skill that necessarily transcends any particular specialized knowledge. A lawyer can provide adequate representation in a wholly novel field through necessary study.

MODEL RULES OF PROF’L CONDUCT R. 1.1 cmt. 2 (2003) (emphasis added).

110. In my work with first-year law students as part of Regent’s Academic Success Program, I have often observed that one of my tasks is to teach students how to know which questions they should ask themselves as they learn material and seek to solve legal problems.

questions to amass all the relevant facts in the case.¹¹¹ Furthermore, in his book *A Student's Guide to Legal Analysis: Thinking Like a Lawyer*, Patrick M. McFadden contends that "there are only three legal questions" that lawyers and judges try to answer in solving legal problems: "Is there a law?"; "Has it been violated?"; and "What will be done about it?"¹¹² He adds that to think like a lawyer is simply to ask these three questions, which are "the kinds of questions lawyers and judges ask about the situations they confront."¹¹³ Other scholars have offered formulas that are not as simplistic but follow the basic format of presenting certain questions that legal thinkers must ask of any legal problem.¹¹⁴

Because lawyers are problem solvers and work through questions to reach the solution to those problems, lawyers progress through certain mental processes in solving problems. Many law students become all too familiar with the standard formula for analyzing and answering a law school hypothetical fact problem: Issue, Rule, Analysis (or Application), Conclusion (IRAC).¹¹⁵ Some educators contend that the formula is simplistic or that it is not applicable to certain types of law school examination questions.¹¹⁶ Unlike in answering certain law

111. See, e.g., BURTON, *supra* note 4, at 140.

112. PATRICK M. MCFADDEN, *A STUDENT'S GUIDE TO LEGAL ANALYSIS: THINKING LIKE A LAWYER* 11 (2001) (reasoning "[e]very legal situation will raise at least one of these questions, or it's not legal"). McFadden notes that the three questions quoted in the text are cast in a way that pertains to litigation. He reasons that transactional attorneys might ask the same three questions but cast them in more-forward thinking language: "(1) Are there any potentially relevant laws? (2) Would any of them be violated? And (3) What might be done about these violations?" *Id.*

113. *Id.* at xvi.

114. See, e.g., SHELDON MARGULIES & KENNETH LASSON, *LEARNING LAW: THE MASTERY OF LEGAL LOGIC* 95-99 (1993) (offering six questions that govern the resolution of "almost all lawsuits").

115. In presenting the IRAC formula to students, some authors describe the "A" as referring to "application," as opposed to "analysis." See, e.g., STROPUS & TAYLOR, *supra* note 13, at 105. Others discuss a variation of IRAC called "CRAC," in which the conclusion is stated first, followed by the rule, analysis/application, and conclusion again. See, e.g., RAMY, *supra* note 13, at 114. Still others take the basic IRAC format and expand it to apply to different types of law school questions. See, e.g., DENNIS TONSING, *1000 DAYS TO THE BAR BUT THE PRACTICE OF LAW BEGINS NOW* 133-35 (2003) (discussing the TICRA-FLIPC approach, which stands for "Topic, Issue or Conclusion followed by the Rule which leads to the Analysis, which is composed of Facts and Law Interwoven with Policy, leading to a logical Conclusion").

116. These educators often contend that IRAC, while helpful to students, is deficient in describing to students what they need to know to answer hypothetical essay questions. See, e.g., WENTWORTH MILLER, *THE LEGAL ESSAY EXAM WRITING PRIMER* 3 & n.6 (5th ed. 2000) ("[W]hile useful, even a revelation to the neophyte law student,

school questions, thinking like a lawyer in the practice context involves solving problems for clients and all four steps are important to reaching an evaluation of the legality of particular action. For this reason, the framework remarkably resembles many of the analytical frameworks discussed above.¹¹⁷ Specifically, lawyer surveys and the MacCrate Report reveal that analysis and fact-application are important lawyering skills;¹¹⁸ the LSAC Study points to the importance of issue identification and rule application as important law school skills;¹¹⁹ and the LSAT and bar exam information both highlight the importance of each of the IRAC steps.¹²⁰ IRAC thus serves as a foundational framework that is relevant, not just to answering essay questions in law school, but also to identifying the different components of thinking like a lawyer. IRAC steps, therefore, are reflected in the steps outlined in the Appendix.

3. Searching for Coherence

In working through legal analytical frameworks, like IRAC, legal thinkers are engaging in a search for coherence in looking for connections and linkages among the kernels of information present in a legal problem.¹²¹ According to James Gardner, “Every legal advocate faces

IRAC is no more than the formulaic *what* in terms of setting up a discussion of an issue.”); RICHARD MICHAEL FISCHL & JEREMY PAUL, *GETTING TO MAYBE: HOW TO EXCEL ON LAW SCHOOL EXAMS* 10, 147-49, 271-72 (1999) (“[A]ttempting to reduce law exam-taking to four simple steps is a lot like attempting to reduce guitar playing to four simple chords: It’s not a bad way to start, but until you get well beyond it, no one is going to mistake you for B.B. King.”). Cf. SCHWARTZ, *supra* note 2, at 212 (reasoning that IRAC is not applicable to examination questions of law or policy).

117. Moreover, sophisticated discussions of legal reasoning still advance frameworks that resemble the IRAC form. See, e.g., RUGGERO J. ALDISERT, *LOGIC FOR LAWYERS* 68 (3d ed. 1997) (“Legal analysis is a three-step procedure: (1) selecting or choosing the legal precept, (2) interpreting that precept and (3) applying it, as interpreted, to the case at hand.”).

118. See *supra* notes 28-29, 47-57 and accompanying text. The *MacCrate Report* specifically explains that its second fundamental lawyering skills requires lawyers to learn to “analyze and apply legal rules and principles.” See MACCRATE REPORT, available at <http://www.abanet.org/legaled/publications/onlinepubs/maccrate.html#B.%20Overview%20of%20the%20Skills%20and%20Values%20Analyzed> (last visited Feb. 7, 2007).

119. See *supra* notes 58-61 and accompanying text.

120. See *supra* notes 62-90 and accompanying text.

121. See BURTON, *supra* note 4, at 107 (reasoning that lawyers strive to make “coherent” arguments). “Coherence” has become a term of art in legal discourse to refer to particular notions of jurisprudence and epistemology. See, e.g., Joseph Raz, *The Relevance of Coherence*, 72 B.U. L. REV. 273 (1992). By using “coherence” here, I intend an ordinary meaning as defined by “sticking together, connected, consistent.”

the challenge of *creating order out of chaos*. The advocate must take an undisciplined mass of information and argument and reshape it into a tool capable of converting the most skeptical decisionmaker to the advocate's point of view."¹²² Patrick McFadden further describes this principle:

Despite the intellectual prejudices of our postmodern world, the law still assumes that the truth is coherent. A good legal story is a coherent story. It has to make sense. In law, things happen in order, motivations are understandable, and what we expect to happen usually happens; the unusual, the unique, and the unexpected must be carefully explained. The legal storyteller, speaking and writing within the bounds of factual truth and expository coherence, labors within a more constricted range of mobility than novelists or poets.¹²³

Principles of relevance and logic, discussed below, provide the structure for coherent legal arguments; but apart from these principles, the fundamental starting point for lawyers is a search for organization, relationship, and order. In a sense, the lawyers' search for coherence is not different from the nonlawyers'. A new branch of cognitive psychology called coherence-based reasoning posits that individuals facing complex decisions tend to shift their view of the considerations to support a state of coherence in which one of the solutions seems clearly preferable to the others.¹²⁴ Individuals often make these shifts subconsciously, believing that their current beliefs are the ones they have always held.¹²⁵ Although legal thinkers may similarly subconsciously shift their thinking as they move to the proposed solution,¹²⁶ they at least intentionally recognize the need for a coherent progression of thought as they solve legal problems. This intention towards coher-

NEW WEBSTER'S DICTIONARY 82 (1991). Lawyers' search for coherence is related to their ability to see both the "forest" and the "trees" by discerning how the details involved in a legal problem relate to the larger, problem-solving framework. See *infra* note 222.

122. JAMES A. GARDNER, *LEGAL ARGUMENT: THE STRUCTURE AND LANGUAGE OF EFFECTIVE ADVOCACY* 3 (1993) (emphasis added).

123. MCFADDEN, *supra* note 112, at 172.

124. See Dan Simon, *A Third View of the Black Box: Cognitive Coherence in Legal Decision Making*, 71 U. CHI. L. REV. 511, 516-517 (2004) (summarizing the findings of coherence-based reasoning research).

125. *Id.* at 533.

126. See *id.* at 549 & n.117 (contending that coherence-based reasoning may support why virtually every argument discussed in a judicial opinion converges to the same conclusion) (citing Dan Simon, *Freedom and Constraint in Adjudication: A Look through the Lens of Cognitive Psychology*, 67 BROOKLYN L. REV. 1097, 1129-39 (2002); Dan Simon, *A Psychological Model of Judicial Decision Making*, 30 RUTGERS L. J. 1, 121-41 (1998)).

ence begins in law school when law students learn the importance of organizing the information discussed in a course into a course outline.¹²⁷ Legal thinkers therefore proceed to solve problems by crafting outlines and diagrams, whether mentally or on paper, that show the connectedness of the issues involved in the problem before them.

4. *Thinking Linearly*

The IRAC framework and the search for coherence serve as good starting points for describing generally the cognitive thought processes lawyers customarily address in solving legal problems. A next point of reference is the fact that, in defining what it means to “think like a lawyer,” many scholars argue and students agree that such thinking must be “logical.”¹²⁸ State bars similarly assert that their bar examinations assess whether applicants can think and write “logically.”¹²⁹ An immediate response to such statements is a yearning to understand what is meant by the term *logic*.

The term *logic* evokes a myriad of sophisticated principles.¹³⁰ However, as Norman Brand and John White contend, to reason logically in a legal context most directly connotes linear thinking.¹³¹ Such thinking involves proceeding step-by-step in a consistent fashion to solve a legal problem. More specifically, it involves applying a series of questions to the legal problem and continuing depending on the

127. See STROPUS & TAYLOR, *supra* note 13, at 65 (“You need to understand, organize, and synthesize the material you cover over a semester so that you can apply it to different fact situations. . . . The best way to accomplish this goal is to make your own outline.”).

128. See Saunders & Levine, *supra* note 17, at 150, 193 (recounting student definitions that described thinking like a lawyer to include “logical” thinking or reasoning); BRAND & WHITE, *supra* note 3, at 133 (“[I]f we were to attempt to identify the one characteristic that everyone agrees lawyers should have, it would probably be an ability to think logically.”). Many students in the Regent survey replied that legal thinking involves logic or logical reasoning. For instance, one third-year student wrote, “To ‘think like a lawyer’ means to consider all reasonable scenarios before making a conclusion. In addition, you must think logically about how to reach that conclusion” Emphasizing logic, however, was not a dominant theme in the Regent survey responses. Responses appeared to focus more heavily on more general concepts like analytical and critical thinking.

129. See, e.g., BRAND & WHITE, *supra* note 3, at 14-15 (noting how the California Bar Examination includes instructions telling applicants that their essay answers should evidence their ability to “reason logically”).

130. For a detailed discussion on the role of logic in legal thinking, see Wilson Huhn, *The Use and Limits of Syllogistic Reasoning in Briefing Cases*, 42 SANTA CLARA L. REV. 813 (2002) [hereinafter Huhn, *Syllogistic Reasoning*].

131. BRAND & WHITE, *supra* note 3, at 134.

answer to the preceding question.¹³² This progression need not be unidirectional; for instance, because the law determines the relevance of facts, legal thinkers move back and forth between the facts and the law as they narrow the legal issue.¹³³ For this reason, legal thinkers often construct flowcharts or decision trees to visualize the decision-making steps through which they must progress to solve a particular legal problem.¹³⁴ This article thus has utilized the flowchart format in the Appendix in visualizing the steps in legal thinking generally.

5. *Crafting Arguments*

Finally, in discussing the overall structure of legal problem solving, it must be recognized that lawyers do not solve problems in the abstract; rather, lawyering, at its core, involves helping clients evaluate the legality of particular actions.¹³⁵ In so doing, lawyers are called upon to make predictions, predictions about how courts or other adjudicative bodies will assess the legality of the actions at issue.¹³⁶ Legal problem solving, therefore, involves solving problems to advance the client's interest, and one of the principal techniques lawyers employ to

132. *Id.* at 134. For this reason, Brand and White compare legal thinking to computer logic in which computers "decide" things based on working through a series of "yes/no, on/off" questions. *Id.*

133. See BURTON, *supra* note 4, at 141 (reasoning that in approaching a new legal issue, one should "begin a process of (1) gathering facts to narrow the focus of legal research, (2) conducting preliminary legal research, (3) gathering more facts in light of that research, (4) conducting further legal research in light of those facts, and so on.").

134. See BRAND & WHITE, *supra* note 3, at 137-40 (reasoning that constructing flow charts helps individuals "think like a lawyer"); STROPUS & TAYLOR, *supra* note 13, at 79-96 (devoting an entire chapter to information for law students on how to construct flow charts as a method to solving legal problems).

135. E.g., DAVID BINDER ET AL., LAWYERS AS COUNSELORS: A CLIENT-CENTERED APPROACH 3 (1991) ("[N]o matter who the client, what the substantive legal issues or whether the situation involves litigation or planning, your principal role as lawyer will almost always be the same—to help clients achieve effective solutions to their problems."). "Clients" in this context should be construed broadly to include situations when an organization is the client, a government entity is the client, or the identity of the client is unclear (such as in some forms of government representation). Cf. MACCRATE REPORT, *supra* note 28, at 142 n.2 (recognizing that legal problem-solving principles apply even when the lawyer is not representing a client). Some scholars have taken a more expansive view of the problems lawyers are trying to solve. See, e.g., Lopez, *supra* note 93, at 2 ("Problem-solving involves perceiving that the world we would like varies from the world as it is and trying to move the world in the desired direction.").

136. BURTON, *supra* note 4, at 1 (noting, *inter alia*, that "[t]he chief feature of legal reasoning is that it is used in the process of anticipating or settling important disputes in advanced societies").

represent that interest is through making arguments and responding to the arguments of others.¹³⁷ For this reason, numerous legal texts designed for law students and lawyers concentrate on how to make good arguments and rebut those of others.¹³⁸ Many of these authors have offered criteria for what constitutes a good legal argument.¹³⁹ Others have written texts that discuss the particular logical fallacies that often arise in legal argumentation.¹⁴⁰ The importance of crafting arguments thus must factor into the overall structure of legal thinking.

B. Identifying Legal Issues

Given the structure of legal thinking as problem solving, the first step, as the MacCrate Report provides, is to identify the problem.¹⁴¹ This skill of identifying the problem is related to the skill traditionally tested in law schools of being able to “spot the issue”¹⁴² and is placed as the first decisional step in the Appendix. In identifying the problem, lawyers ask questions, as noted above, but the issue remains what questions should they ask.

1. Assessing Relevance

A first aspect of the questions lawyers ask is that their questions are designed to distill relevant information from the irrelevant.¹⁴³ The

137. See J.S. COVINGTON, JR., *THE STRUCTURE OF LEGAL ARGUMENT AND PROOF: CASES, MATERIALS, AND ANALYSES* 3 (2006) (“Argument, defined as *discourse containing inference*, is the major part of legal work.”). A classic definition of argument is “a group of statements, one of more of which (the premises) support or provide evidence for another (the conclusion).” T. EDWARD DAMER, *ATTACKING FAULTY REASONING: A PRACTICAL GUIDE TO FALLACY-FREE ARGUMENTS* 11 (4th ed. 2001).

138. See, e.g., HUHN, *supra* note 2, at 12 (contending that thinking like a lawyer consists of learning to make and recognize five types of arguments); PIERRE SCHLAG & DAVID SKOVER, *TACTICS OF LEGAL REASONING* 1 (1986) (noting on the first line of the Introduction that “[t]his book is designed to help lawyers and law students criticize and attack legal arguments”).

139. See, e.g., MCFADDEN, *supra* note 112, at 170 (contending that good legal arguments have the qualities of truth, precision, coherence, and logic).

140. BRAND & WHITE, *supra* note 3, at 145-47; ALDISERT, *supra* note 117, at xii-xviii; COVINGTON, *supra* note 137, at 10-24; DOUGLAS LIND, *LAW AND LEGAL REASONING* ix-xiv (2001).

141. MACCRATE REPORT, *supra* note 28, at 142.

142. See STROPUS & TAYLOR, *supra* note 13, at 104; SCHWARTZ, *supra* note 2, at 203-04.

143. STROPUS & TAYLOR, *supra* note 13, at 113 (including the skill of discerning relevant information in a list of skills that are important to successful lawyering); Saunders & Levine, *supra* note 17, at 191, 195 (reproducing student essays that described thinking like a lawyer as including the ability “to decide which facts and

search for relevance is a specific example of lawyers' task of creating "order out of chaos."¹⁴⁴

Although only a few judicial opinions have discussed explicitly what it means to "think like a lawyer,"¹⁴⁵ the Maryland Court of Appeals in *Maniki v. Mass Transit Administration*,¹⁴⁶ focused on this analytical ability of assessing relevance as central to the concept. In the case, the court considered whether the trial court properly dismissed a lawyer complaint when the complaint was over sixty pages in length, with 241 paragraphs.¹⁴⁷ The opposing party moved to dismiss the complaint, alleging "that it was 'rambling' and constituted 'an assemblage of opinions, argument, recitations of evidentiary minutiae, and extraneous allegations.'"¹⁴⁸ Commenting that she had been unable to discern a cause of action in the first forty pages, the trial judge dismissed the complaint with leave to amend.¹⁴⁹

In reviewing the dismissal, the appellate court observed that "Maryland Rule 2-303(b) requires that 'each averment of a pleading shall be simple, concise, and direct' and that it 'shall contain only such statements of fact as may be necessary to show the pleader's entitlement to relief.'"¹⁵⁰ The court ruled that the trial judge properly dismissed the complaint pursuant to that rule. In its reasoning, the court stated that the attorney had failed to think like a lawyer:

issues are pertinent and which ones are not" and "to determine what is essential, and what is superfluous and distracting").

144. GARDNER, *supra* note 122, at 3.

145. Most judicial discussions of what it means to "think like a lawyer" have centered on whether criminal defendants proceeding pro se can obtain relief on certain issues even though they failed properly to raise those issues in prior proceedings. In such cases, several courts have ruled that the "failure to act or think like a lawyer" is not considered cause for neglecting to assert such issues. See, e.g., *U.S. ex rel. Matthews v. Hinsley*, 2006 U.S. Dist. LEXIS 57101, WL 2191320 at *197 (N.D. Ill. July 27, 2006) (quoting *Henderson v. Cohn*, 919 F.2d 1270, 1272 (7th Cir.1990)). In these references, the courts appear to be referencing not so much to the analytical components to legal thinking but rather to the straightforward fact of whether the defendant knows the law. See *id.* (noting immediately before the quotation that "ignorance of the law" is not sufficient to excuse a failure to properly raise claim). As in much of the other literature, some courts have used the phrase without defining it. See *Williams v. Boorstin*, 663 F.2d 109, 113 (D.C. Cir. 1980) (recounting how individual was discovered not to be an attorney because he "did not quite 'think like a lawyer'").

146. 758 A.2d 95 (Md. Ct. App. 2000).

147. *Id.* at 100.

148. *Id.*

149. *Id.*

150. *Id.* The court highlighted that the Maryland rule was different from the federal pleading requirements. *Id.*

[W]hen drafting a Maryland circuit court complaint, it is the responsibility of counsel to distill from the client's narrative and any other relevant information acquired by investigation a concise statement of facts that will identify for the professional reader, be it adverse counsel or the court, the cause of action that is being asserted. That is the essence of "thinking like a lawyer."¹⁵¹

The court's reasoning underscores that being able to distill relevant from irrelevant information is essential to thinking like a lawyer. This emphasis on assessing relevancy mirrors the emphasis in the skills tested on many bar exams. Specifically, materials describing the MEE and several state bar exams expressly highlight the importance of applicants' being able to discern irrelevant from relevant information.¹⁵² Furthermore, a few Regent students recognized this emphasis in their survey descriptions of what it means to think like a lawyer.¹⁵³

Identifying, in a general sense, how lawyers determine relevance is difficult to do because "relevance" by definition depends on the specific problem being solved.¹⁵⁴ Some scholars who have analyzed relevance have started from the position that the lawyer knows the legal rules at issue and thus is focused on discerning relevant facts based on those rules.¹⁵⁵ This starting point is acceptable for "expert" lawyers. Indeed, cognitive science research has demonstrated that experts in various fields proceed to solve a problem by "recognizing" in the problem a pattern of a particular kind and then "retrieving" a solution from a stored catalog of solutions to similar problems.¹⁵⁶ Such lawyers have well-developed "substantive schemata," or frameworks of similar legal problems, and they strive to fit the current situation within one of

151. *Id.*

152. *See supra* notes 80, 86-87 and accompanying text. Maryland and Texas are two states that explicitly mention the importance of distilling relevant information. Texas specifically mentions the importance in describing the MPT, but its description is noteworthy because it expounds upon the official MPT description put forth by the National Conference. *See supra* notes 85-87 and accompanying text.

153. For instance, one third-year student wrote, "Lawyers should think about all the relevant facts and relevant rules before coming to a conclusion."

154. *See* WEBSTER'S NEW TWENTIETH CENTURY DICTIONARY 1526 (2d ed. 1983) (defining "relevant" as "bearing upon or relating to the matter in hand; to the point; pertinent; applicable; as, the testimony is *relevant* to the case; the argument is *relevant* to the question: opposed to *irrelevant*").

155. *See, e.g.,* BURTON, *supra* note 4, at 98.

156. Blasi, *supra* note 45, at 335-36 (discussing, *inter alia*, research on expert chess players that shows that what distinguishes such players from novices is the experts' ability to remember board positions).

these schemata.¹⁵⁷ In solving a legal problem, seasoned lawyers draw from their experience to identify the relevant rules and then fit the relevant facts into the problem framework.¹⁵⁸ How lawyers proceed from this point gives rise to complicated issues of relevance, which are discussed below.

a. *Determining Relevance Before Rules Are Known*

Even more complicated, however, are the parameters lawyers use to determine relevance when they do not know the legal rule(s) upon which to base their decisions. Suppose, for instance, a client comes to see a lawyer and describes a complex factual situation and then ends with, "Do I have a case against x?" The lawyer may not be familiar with the types of facts involved in the situation and may have no knowledge of any legal rule that pertains to the situation as described. Lawyers should, of course, ask the client questions to get an accurate account of the facts,¹⁵⁹ but a lawyer who knows nothing about the type of problem may have no idea when to delve more deeply into a particular factual aspect of the case.¹⁶⁰ Some have contended that legal problem solving in such cases may begin with little more structure than a "fishing expedition."¹⁶¹ But does legal thinking in fact involve a more structured approach? In general, how does the lawyer proceed in such a situation?¹⁶²

Cognitive science is again instructive. Allen Newell and Herbert Simon have advanced the modern framework in the field of cognitive

157. See Paula Lustbader, *Construction Sites, Building Types, and Bridging Gaps: A Cognitive Theory of the Learning Progression of Law Students*, 33 WILLAMETTE L. REV. 315, 326-27 (1997). Lustbader adds that this development of schemata distinguishes expert from novice legal thinkers in the area. *Id.* ("because experts have command of a large amount of domain-specific knowledge, they can classify problems and approach problem solving quickly In contrast, novices may get lost in the details of a problem without identifying its general category. This results in an inefficient and faulty analysis."); see also Lustbader, *Dreams*, *supra* note 10, at 850-51 (discussing the relevance of substantive schemata to legal instruction).

158. See Appendix.

159. See BURTON, *supra* note 4, at 140-41.

160. As stated in footnote 110, I have learned that one aspect of legal thinking that students should develop is knowing when to ask questions and knowing which questions to ask. See *supra* note 111.

161. BURTON, *supra* note 4, at 141.

162. This situation is analogous to the law student who reads a hypothetical fact pattern essay question on an exam and spots no issues and therefore has no framework through which to proceed (except for the general structure of the course at issue).

science for the systematic analysis of problem solving.¹⁶³ Newell and Simon posit that problem solving progresses through four stages: (1) describing the beginning state of affairs; (2) describing the goal state; (3) describing those actions or steps (i.e., the “operators”) that can be taken to change the beginning state of affairs; and (4) identifying any constraints in moving to the goal, such as any limits on the number of times an operator can be used.¹⁶⁴ Problem solving thus becomes finding the appropriate sequence of operators to move from the starting state to the goal state.¹⁶⁵

In addressing the specific contours of legal problem solving, Saunders and Levine assert:

The lawyer does not start from general principles and reason “forward” to some as yet unknown inevitable conclusion. Rather, the lawyer begins with a conclusion or a claim—the client’s goal. He or she then designs justificatory strategies for reaching that goal, reasoning backward through a process akin to “reverse engineering.”¹⁶⁶

Anthony Amsterdam calls this process “ends-means thinking,” whereby the lawyer confronts a fact situation presenting a problem, identifies the possible outcomes or goals, constructs ways of reaching those goals, and then selects the best option.¹⁶⁷ He adds that end-means thinking entails “[R]easoning backward from goals, by mapping the various roads that might be taken to each goal, by proceeding backward step by step along each road and asking what steps have to be taken before each following step can be taken.”¹⁶⁸

163. Blasi, *supra* note 45, at 333. Newell and Simon describe a problem “abstractly as the situation that arises when one wants to achieve a different state of affairs and it is not obvious how to get there.” *Id.* (discussing Newell and Simon).

164. *See id.* (citing DANIEL N. OSHERSON & EDWARD E. SMITH, EDs., *THINKING: AN INVITATION TO COGNITIVE SCIENCE* 118 (1991)).

165. *Id.* at 334. With modern computer legal research, lawyers and law students can sift through the possibilities more quickly using the “natural language” search functions on Lexis and Westlaw. However, they still need to determine the relevant words to type in the search; the computer only knows about the legal problem what the searcher tells it.

166. Saunders & Levine, *supra* note 17, at 183 (citing, *inter alia*, CLARENCE MORRIS, *HOW LAWYERS THINK* 42 (1937)).

167. Anthony G. Amsterdam, *Clinical Legal Education – A 21st Century Perspective*, 34 J. LEGAL EDUC. 612, 614 (1984).

168. *Id.* The descriptions of “forward” and “backward” reasoning discussed in the text do not correspond precisely to the terms as used in the field of cognitive psychology. *See* Stefan H. Krieger, *Domain Knowledge and the Teaching of Creative Legal Problem Solving*, 11 CLINICAL L. REV. 149, 169-70 (2004). Unlike the description in the text, cognitive psychologists do not conceive of forward reasoning as reasoning that moves towards an unknown conclusion. They conceive that in both “forward” and

In all these conceptions of problem solving, lawyers must identify a goal state in the beginning of their decisionmaking process. Theoretically, any problem solver could go through all the possible sequences of operators to find the goal state (i.e., solution), but such a process is impossible in most cases because of the “combinatorial explosion” of possible sequences that would have to be examined.¹⁶⁹

Simon and Newell contend that problem solvers apply heuristic principles to reduce the number of possible paths to the solution.¹⁷⁰ Legal scholars have recently drawn upon research from cognitive science and psychology to consider the relevance of heuristics to the thinking of lawyers and judges.¹⁷¹ Heuristics are defined simply as “mental shortcuts”¹⁷² or “rules of thumb.”¹⁷³ They are used to decrease the complexity of information that individuals assess in making decisions.¹⁷⁴ Heuristics often lead decisionmakers to correct solutions, but sometimes they can produce cognitive biases that cause decisionmakers improperly to discount material information or other-

“backward” reasoning, the decisionmaker identifies one or more hypotheses early in the problem solving process and then moves towards a solution based on those starting points. *Id.* The two forms differ, in part, in how explicitly the decisionmaker tests the validity of his hypotheses as he moves towards problem solution. Those employing forward reasoning use experience and other sources of knowledge to come to a conclusion relatively quickly. In contrast, those employing backward reasoning develop alternative hypotheses initially and then work backwards as they test these hypotheses with the available data. *Id.* Based on these conceptions, lawyers can employ either forward or backward reasoning as they solve client problems. See Mark Neal Aaronson & Stefan H. Krieger, *Teaching Problem-Solving Lawyering: An Exchange of Ideas*, 11 CLINICAL L. REV. 485, 499 (2005).

169. Blasi, *supra* note 45, at 334. With modern computer legal research, lawyers and law students can sift through the possibilities more quickly using the “natural language” search functions on Lexis and Westlaw. However, they still need to determine the relevant words to type in the search; the computer only knows about the legal problem what the searcher tells it.

170. *Id.*

171. See, e.g., Chris Guthrie, *Insights From Cognitive Psychology*, 54 J. LEGAL EDUC. 42, 44-45 (2004); Ian Weinstein, *Don't Believe Everything You Think: Cognitive Bias in Legal Decision Making*, 9 CLINICAL L. REV. 783, 789-90 (2003); Alvin I. Goldman, *Simple Heuristics and Legal Evidence*, 2 LAW PROBABILITY & RISK 215 (2003).

172. Weinstein, *supra* note 171, at 789.

173. Guthrie, *supra* note 171, at 44.

174. Morrell E. Mullins, Sr., *Tool, Not Rules: The Heuristic Nature of Statutory Interpretation*, 30 J. LEGIS. 1, 49 (2003).

wise make unwise judgments.¹⁷⁵ Relevant literature discusses numerous of types of heuristics.¹⁷⁶

Heuristics are, by definition, used by ordinary thinkers and are not unique to legal thinkers.¹⁷⁷ The question remains, however, whether legal thinkers tend to use certain types of heuristics more than others.¹⁷⁸ Although legal thinkers in unfamiliar situations may not be able to rely upon the higher-order recognition techniques used by the expert thinkers, they still undeniably rely on the “recognition heuristic” to help them solve problems. Recognition is a powerful cognitive device,¹⁷⁹ and legal thinkers who have no familiarity with the particular legal problem at issue should begin to recognize parts of the situation as resembling something they have addressed in the past.¹⁸⁰

175. Guthrie, *supra* note 171, at 44; *see also* Goldman, *supra* note 171, at 218 (“Simple heuristics are touted as having an accuracy rate that is comparable to several highly complex procedures that other statisticians or decision theorists have advocated.”).

176. Mullins, *supra* note 174, at 48-53 (noting that the list of heuristics can be “spun out at length”). One example is “anchoring and adjustment,” which contends that when individuals estimate the value of something they are usually “heavily influenced by the first number they encounter.” This tendency is usually appropriate since the first number, such as the price of an item, tends to give the decisionmaker some material information about the item’s value. However, even if the first number is not relevant, decisionmakers are often nevertheless problematically influenced. *See* Guthrie, *supra* note 171, at 44 (discussing research demonstrating this bias).

177. *See* Goldman, *supra* note 171, at 215 (defining heuristics as “‘fast and frugal’ inference procedures that are claimed to be used by ordinary thinkers and to be as accurate as more complex strategies”).

178. Individuals use heuristics to predict an outcome in the face of an uncertain situation, and therefore, as Morrell Mullins suggests, legal thinkers do not use heuristics in all situations. For instance, judges would not employ heuristics in the traditional sense in predicting how they will interpret a statute because the outcome is within their control. *See* Mullins, *supra* note 174, at 53-54. However, lawyers might employ heuristics when they predict how the judges will rule because they are operating under conditions of uncertainty. *See id.* at 54 n.282. Moreover, judges may employ heuristics in their role when they assess, for instance, how likely it is that a witness’s testimony about an event reflects what actually happened. *See* Michael J. Saks & Robert F. Kidd, *Human Information Processing and Adjudication: Trial by Heuristics*, in *JUDGMENT AND DECISION MAKING: AN INTERDISCIPLINARY READER* 213, 216 (Hal R. Arks & Kenneth R. Hammond, eds., 1986) (“Most legal decision making, like that in many other areas of complex activity, is done under conditions of uncertainty.”); *cf.* HOWELL E. JACKSON ET AL., *ANALYTICAL METHODS FOR LAWYERS* 1-33 (2003) (including a chapter on “decision analysis” for lawyers).

179. Saks & Kidd, *supra* note 178, at 217.

180. *See* SCHWARTZ, *supra* note 2, at 207-08 (reasoning how spotting the issues in a legal problem involves “recognizing patterns” between the problem and other situations with which the legal thinker is familiar).

Such is part of the power of the case method in legal education. A lawyer who faces the client question "Do I have a case against x?" is likely to recognize something in the fact pattern presented to cause the lawyer to raise further questions. The lawyer may remember how a fact in the client's situation resembles a fact she read in a case in law school, for instance. In another instance, the lawyer may note that the situation involves a purported agreement between the parties and recognize it as a potential contract although the lawyer does not know the specific legal rule that applies in the particular case. Lawyers can draw upon this previous experience because steeped in the law is the principle of *stare decisis*.¹⁸¹ Lawyers therefore assess a new situation with the expectation that the law will view a relevantly similar situation the same as it did in the past.

A related heuristic upon which lawyers rely is the "representative heuristic," in which thinkers are asked to judge whether "an object or event A is a member of a class or process B."¹⁸² Thinkers employ this heuristic by considering the degree to which A resembles B.¹⁸³ As a result, a lawyer might consider the facts in the situation before him and evaluate the degree to which those facts resemble the facts in a previous case.

This heuristic is akin to analogical reasoning, discussed below,¹⁸⁴ and is subject to similar pitfalls of such reasoning in that thinkers overlook the fact that similarities between items are significant depending on the relevance, quantity, and quality of those similarities.¹⁸⁵ Empirical research on this heuristic confirms that individuals rely on the similarities they perceive between A and B regardless of information they have learned on the prior probability of outcomes, on sample size, or on other important criteria.¹⁸⁶ Lawyers therefore may use both the recognition and representative heuristics in analyzing novel situations,

181. See MCFADDEN, *supra* note 112, at 183 ("We are all taught from the beginning of law school, judges and lawyers alike, that precedent matters, that precedent binds.").

182. Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, in JUDGMENT AND DECISION MAKING: AN INTERDISCIPLINARY READER 38, 55 (Hal R. Arkes & Kenneth R. Hammond, eds., 1986); see also Mullins, *supra* note 174, at 51.

183. Tversky & Kahneman, *supra* note 182, at 39.

184. See *infra* notes 204-235 and accompanying text.

185. Mullins, *supra* note 174, at 51.

186. Tversky & Kahneman, *supra* note 182, at 39-46 (analyzing also that the representative heuristic can lead to the gambler's fallacy in which individuals believe that the future occurrence of a chance event is affected by the event's run in the past); see also DAMER, *supra* note 137, at 159-61 (describing the gambler's fallacy).

but other principles of logical thinking that are prototypical of thinking like a lawyer would minimize the negative effects of the use of these heuristics.

b. Determining Relevance Once Rules Are Known

Once legal thinkers discover the relevant rules, they must engage in further determinations of relevance. From this starting point, Stephen Burton offers some general suggestions for determining relevance, a process he describes as involving the “judgment of importance.”¹⁸⁷ Burton’s first principle for determining relevance is to analyze the purpose of the rule at issue.¹⁸⁸ This principle follows from learning theory generally because studies of learning have found that knowing the purpose behind a rule helps an individual understand the rule and know how to apply it.¹⁸⁹ This principle, however, involves the lawyer’s substantive understanding of the doctrine at issue more than a specific cognitive process the lawyer must undertake.

His second principle more directly pertains to a cognitive process. He opines that lawyers determine relevance by considering the language of the rule at issue and tying particular facts to particular parts of the rule, such as the elements or factors of the rule.¹⁹⁰ If any part of the rule is vague or ambiguous, lawyers can return to the purpose of the rule to clarify the part’s meaning.¹⁹¹ Within Burton’s second principle lie the following two additional cognitive components of thinking like a lawyer.

2. Dissecting Thought

The first related cognitive skill is summarized by Thomas Reed Powell as “learning to think like a lawyer is when you learn to think about one thing that is connected to another without thinking about the other thing that it is connected to.”¹⁹² Lawyers thus develop the

187. BURTON, *supra* note 4, at 98. Burton discusses the example of determining what facts are relevant to a hypothetical situation where a child was run over by a truck. Without the restriction of relevance, questions as diverse as “what religion was the child” and “was it nighttime or daytime” could appear equally important. *See id.* at 99-100.

188. *Id.* at 100-101. Burton also discusses how legal thinkers analyze the situation when the law appears to have multiple, conflicting purposes. *Id.* at 124-34.

189. SCHWARTZ, *supra* note 2, at 213-14.

190. *See* BURTON, *supra* note 4, at 101.

191. *See id.* at 102.

192. A. Simpleman, Jr., *Sentimental Metaphors*, 34 UCLA L. REV. 537, 545 (1986), *quoted in* *Montana v. Egelhoff*, 518 U.S. 37, 78 (1986) (Souter, J., dissenting). In his dissenting opinion in *Montana*, Justice Souter quoted Thomas Reed Powell to suggest

cognitive ability to dissect thought and separate ideas into component parts that may or may not relate to one another.¹⁹³

This process of dissection is most apparent when lawyers scrutinize the component parts of a rule. Often those component parts may be clearly defined, such as in well-drafted statutory sections¹⁹⁴ or in well-developed common law rules.¹⁹⁵ Lawyers however, must be prepared to break down rules even when precedent has not clearly done so.¹⁹⁶ This process of “elementizing” or “deconstructing” rules proceeds as lawyers read the language of a rule and separate into a distinct component each portion of the rule that could become a distinct issue depending on the facts of the case.¹⁹⁷ In this process, the lawyer looks for any word or phrase in a rule that may or may not be satisfied by the facts in a given situation.

For instance, a standard definition of assault reads: “An assault occurs where the defendant intentionally causes the plaintiff to be reasonably in apprehension of an imminent, offensive touching.”¹⁹⁸ In elementizing this rule, the lawyer sees that several words could give rise to issues and therefore constitute discrete components in the rule. By emphasizing these words, the components become apparent: “An assault occurs where the defendant *intentionally causes the plaintiff to be reasonably in apprehension of an imminent, offensive touching.*” Thus, based on the language of this rule, to prove an assault the plaintiff would have to demonstrate that: (1) the defendant intended to cause the plaintiff to be in apprehension; (2) the plaintiff, as opposed

that although lawyers might have this ability, the state might argue that jurors do not and that they therefore would be confused by admitting evidence on culpable mental state but not on capacity. *Montana*, 518 U.S. at 78.

193. RAMY, *supra* note 13, at 76 (reasoning that “[o]ne aspect of thinking like a lawyer is breaking larger ideas down into their constituent parts”).

194. *See, e.g.*, MODEL RULES OF PROF'L CONDUCT R. 1.16 (2003) (breaking down into separate provisions the specific situations when a lawyer must withdraw from representing a client and the specific situations when a lawyer may withdraw from such representation).

195. For instance, perhaps the most well-known common law rule is the rule of negligence, which has four component elements: duty, breach, causation, and harm/damages.

196. *See* L.H. LARUE, GUIDE TO THE STUDY OF LAW: AN INTRODUCTION 10 (2d ed. 2001).

197. BRIAN N. SIEGEL & LAZAR EMANUEL, SIEGEL'S ESSAY AND MULTIPLE-CHOICE QUESTIONS AND ANSWERS: CIVIL PROCEDURE 1 (1998) (defining “elementizing” as “reducing the legal theories and rules . . . down to a concise, straightforward statement of their essential elements”); SCHWARTZ, *supra* note 2, at 149-56 (devoting extended discussion to how legal thinkers must learn to “deconstruct” rules).

198. SIEGEL & EMANUEL, *supra* note 197, at 5.

to someone else, was in apprehension; (3) the plaintiff's reaction rose to the level of "apprehension"; (4) the apprehension was of a touching; (5) such touching was imminent; and (6) such touching was offensive. This elementization is not intended to reflect accurately all the issues that arise in proving assault.¹⁹⁹ Nevertheless, this process of dissecting thought, here in the form of rule elementization, is the first step legal thinkers take as they seek to understand the rule in order to solve the legal problem.

3. *Perceiving Ambiguity*

In the process of dissecting thought, lawyers are looking for words or phrases that could give rise to issues, and often such words or phrases point to issues because they are vague or ambiguous. Legal thinking thus involves the cognitive process of perceiving ambiguity, often in situations where a nonlawyer might not. Lawyers have in fact been called "professionals of ambiguity."²⁰⁰ For instance, part of thinking like a lawyer includes developing the skill to question when terms are not as well-defined as they purport to be.²⁰¹ Similarly, legal thinking often involves challenging what others see as intuitively correct.²⁰² One third-year student in the Regent survey challenged this aspect of legal thinking as positive; he wrote that legal thinking involves "turn[ing] every conceivable absolute into an uncertainty."

199. Indeed, one could separately identify sub-issues in element (1) in the text. See, e.g., JOHN L. DIAMOND ET AL., UNDERSTANDING TORTS 3-7 (2000) (discussing the legal definition of intent).

200. LARUE, *supra* note 196, at 11.

201. I highlight this skill in an apple exercise I use during academic orientation for entering students at Regent University School of Law. In the exercise, I ask a student to describe an apple, which I hold before him or her. When the student describes the apple as "red," we use "red" as a rule for apples that we apply to later objects I present before them. When I present objects that are not as "red" as apples, this presentation invites a discussion on the fact that the word "red" is vague because it may or may not include colors ranging from melon to maroon. I adapted the exercise from a fruit exercise I learned from Carol Wilson, the Director of the Academic Support Program at the University of San Francisco School of Law.

202. In Saunders and Levine's study, one student underscored this point by noting:

[T]he job of a lawyer and the thinking process is much more subtle than I thought it was. . . . [Y]ou take what is intuitive and you destroy it. Everyone may understand something on an intuitive level, but you can somehow, by being persistent and by always bringing up these very strange examples or strange exceptions to the rule, you can take what was once understood on an intuitive level and make it suspect.

Saunders & Levine, *supra* note 17, at 174.

This negative extreme of this form of thinking is why legal thinkers should *perceive* ambiguity, not manufacture it.

Resources designed to prepare students for law school emphasize the importance of “interpretation” to legal thinking.²⁰³ Law students learn that words can have many different interpretations and that words or terms that are even defined in the statute or relevant legal document can still suffer from ambiguity or vagueness.²⁰⁴ Legal definitions may narrow the scope of the interpretive problem, but they do not solve it if any of the terms in the definition themselves are either vague or ambiguous.²⁰⁵ As one scholar notes, “Eventually, you exhaust the rules and definitions that purport to determine which argument in a case is a correct one by deduction.”²⁰⁶ At that point, legal thinkers must rely on extralogical principles of judgment to help them apply the rules to the case at hand.²⁰⁷ Drawing upon such principles is important because legal thinkers are problem solvers, so after their recognition of ambiguity, they still need to discern the best interpretation in order to find the best solution.²⁰⁸

Law students must “[l]earn to love the grey,” state Ruta K. Stropus and Charlotte D. Taylor in their popular guide to preparing for law school, *Bridging the Gap Between College and Law School: Strategies for Success*.²⁰⁹ Vague or ambiguous terms in legal rules serve as the focal points for significant controversies in the law²¹⁰ and therefore serve as key analytical issues in law school.²¹¹ Resources on legal thinking

203. BURTON, *supra* note 4, at 52.

204. *See id.* at 52-53 (noting that words that have two or more meanings are “ambiguous” whereas words that have meanings that move continuously from one to another without a clear demarcation are “vague”).

205. *See id.* at 53.

206. *Id.* at 55.

207. *Id.*

208. *Cf.* Daniel Barnett, Associate Professor, Boston College Law School, Remarks as part of a Panel Presentation at the 2005 LSAC Annual Meeting and Education Conference entitled, *Who Are Our Successful Students?* (June 4, 2005) (observing that successful law students are able to appreciate and make the most of the fact that the study of law is in between the hard sciences where there generally are right answers and the humanities where there generally are no right answers).

209. STROPUS & TAYLOR, *supra* note 13, at 13.

210. *See, e.g.,* Shook v. Crabb, 281 N.W.2d 616, 621 (Iowa 1979) (LeGrand, J., dissenting) (debating the meaning of the word “tort” in the principle that a commission of a tort by one spouse against another destroys the defense of spousal immunity); United States v. Gil, 604 F.2d 546, 548-49 (7th Cir. 1979) (considering the meaning of the term “conspiracy” in Federal Rule of Evidence 801(d)(2)(E)).

211. For instance, take the classic “reasonable person” standard of duty of care in negligence. The standard is so general that further tests, or rules, have been developed to help lawyers apply the standard to particular factual situations and even the

thus discuss the significance of the fallacy of equivocation to help lawyers and law students recognize and avoid such flawed reasoning.²¹²

C. Logical Reasoning

1. Deductive and Inductive Reasoning

As noted above, logical thinking in the legal context involves linear thought.²¹³ More specifically, however, such thinking involves particular logical thought processes. Only a handful of law school texts addresses in depth the relationship between legal reasoning and logical reasoning.²¹⁴ Nearly all of the texts focus on the following basic principles of logic as they relate to legal reasoning:

- 1) inductive reasoning, particular analogical reasoning, inductive generalizations, and the associated fallacies; and
- 2) deductive reasoning, particularly categorical, hypothetical, disjunctive, and conjunctive syllogisms and the associated fallacies.²¹⁵

In many respects, these texts' discussion of these logical principles does not differ from how they might be discussed in a general logic text. The question therefore remains whether these principles have any unique import in legal thinking as opposed to critical thinking generally.

On this issue, Judge Ruggero Aldisert underscores in his well-known text *Logic for Lawyers* the preeminence of analogical reasoning to legal thinking.²¹⁶ He writes, "The importance of legal reasoning by analogy cannot be overstated. It is the heart of the study of law; it lies at the heart of the Socratic method in the classroom and the courtroom."²¹⁷ In contrast, Douglas Lind in his text *Logic and Legal Reason-*

application of those tests is not clear in most cases. See DIAMOND ET AL., *supra* note 199, at 51-63 (discussing the different tests applicable in the reasonable person standard).

212. See, e.g., ALDISERT, *supra* note 117, at 217-19 ("When we confuse several meanings of a word or phrase, we use the word or phrase equivocally. When we do this in the context of an argument, we commit the fallacy of equivocation.").

213. See *supra* notes 128-33 and accompanying text.

214. Many of the books that address the relationship between logic and legal reasoning are geared expressly for pre-law students or for entering law students. See, e.g., BURTON, *supra* note 4; ELIAS E. SAVELLOS & RICHARD F. GALVIN, *REASONING AND THE LAW: THE ELEMENTS* (2001).

215. See, e.g., ALDISERT, *supra* note 117, at xii-xviii; LIND, *supra* note 140, at ix-xiv; BURTON, *supra* note 4, at 25 (contending that "[l]egal reasoning takes two principal forms: One is analogical; the other is deductive").

216. Aldisert is the former Chief Judge of the United States Court of Appeals for the Third Circuit. ALDISERT, *supra* note 117, at v.

217. *Id.* at 96. Aldisert adds:

ing stresses that no one logical process is more important than the other because analogy, inductive generalization, and deductive logic all are critical to legal reasoning.²¹⁸

Other texts that address legal reasoning more generally affirm that the thought processes related both to inductive and deductive reasoning are fundamental to legal reasoning, but most support Aldisert's conclusion by focusing on the importance of inductive reasoning, particularly analogical reasoning.²¹⁹ For instance, in their popular text to prepare students for law school, *Law School Without Fear: Strategies for Success*, Helene and Marshall Shapo note the importance of inductive and deductive reasoning, but they devote extended discussion to inductive thought processes.²²⁰ The text's emphasis on analogical reasoning underscores skills such as being able to distinguish cases.²²¹

Other texts similarly stress analogical reasoning even though they may not use the nomenclature "analogical reasoning" per se. For instance, in his book, *A Student's Guide to Legal Analysis: Thinking Like a Lawyer*, Patrick McFadden contends that in legal analysis students primarily take on an "archaeological perspective" by reading cases and discussing what happened in those cases in the past.²²² He observes, however, that students learn how to "switch" perspectives and assume "contemporary" perspectives so that they can analyze how the cases

It is important for professors to use the Socratic method, because the method of analogy goes to the fundamentals of the common-law tradition. Cardozo has taught us that "[t]he common law does not work from pre-established truths of universal and inflexible validity to conclusions derived from them deductively. Its method is inductive and it draws from generalizations to particulars."

Id. (quoting BENJAMIN N. CARDOZO, *THE NATURE OF THE JUDICIAL PROCESS* 22-23 (1921)). Law professors' use of hypothetical illustrations in the classroom particularly develops students' skills in analogical reasoning. See HELENE SHAPO & MARSHALL SHAPO, *LAW SCHOOL WITHOUT FEAR: STRATEGIES FOR SUCCESS* 69 (2d ed. 2002).

218. LIND, *supra* note 140, at 21.

219. See, e.g., BRAND & WHITE, *supra* note 3, at 142 ("Analogies are a vital mode of arguing in the legal context.")

220. SHAPO & SHAPO, *supra* note 217, at 59. These authors define inductive and deductive reasoning as based on whether the reasoning moves from the particular to the general or from the general to the particular. *Id.* Strictly speaking, the two forms differ in the extent to which the premises are claimed to prove the conclusion. In deductive reasoning, the conclusion is claimed to follow necessarily from its premises; that is, the premises are intended to make the conclusion inevitable. In inductive reasoning, the conclusion is claimed to follow from its premises only with some degree of probability (e.g., that the conclusion is probably true). See LIND, *supra* note 140, at 7; IRVING M. COPI & CARL COHEN, *INTRODUCTION TO LOGIC* 24-26 (10th ed. 1998).

221. *Id.* at 66-67.

222. MCFADDEN, *supra* note 112, at 14.

would apply to modern situations.²²³ For students to compare the cases with the current situations, they must employ principles of analogical reasoning even though McFadden does not use that particular phrase to describe the process.²²⁴

These texts' emphasis is understandable given that law students and lawyers spend a considerable amount of time comparing the factual situation before them (whether it be hypothetical or real) to ones in cases where controlling or persuasive authority has been set.²²⁵ Accordingly, respondents rated "identifying similarities and differences between cases and problems" as a highly important skill in the LSAC study referenced above.²²⁶ Law professors must similarly believe that analogical reasoning is central to thinking like a lawyer because they often spend class time challenging the students to apply the rule from an assigned case to a class hypothetical. In this process, students are forced to draw analogies between the hypothetical and the read case.

In contrast to analogical reasoning, the other primary form of inductive reasoning, inductive generalizations, is much less emphasized in the legal reasoning texts. Some texts, in fact, omit it altogether and focus solely on deductive reasoning and analogical reasoning.²²⁷ Scholars may overlook inductive generalizations because they believe that lawyers do not induce new law because that is the role of judges or congressional bodies.²²⁸ However, this oversight is problematic because lawyers often engage in such reasoning through their process of "synthesizing cases."²²⁹ Numerous theorists describe this process of synthesis as critical to legal thinking.²³⁰ In this process, which is related to lawyers' search for coherence, lawyers examine multiple

223. *Id.*

224. *Id.* at 14-15.

225. *Id.* at 66-67; see also SAVELLOS & GALVIN, *supra* note 214, at 69; (emphasizing the relevance of analogical reasoning to case analysis); LAUREL CURRIE OATES ET AL., *THE LEGAL WRITING HANDBOOK: ANALYSIS, RESEARCH, AND WRITING* 61 (2d ed. 1998) (providing a chart on how to present arguments based on analogous cases).

226. *LSAC Study*, *supra* note 54, at 12.

227. BURTON, *supra* note 4 (devoting entire chapters to "deductive reasoning" and "analogical reasoning" while not mentioning inductive generalizations).

228. Cf. LIND, *supra* note 140, at 20-21 (describing how judges employ principles of inductive generalizations when they "begin to speak of a 'general rule'").

229. *Id.* at 62.

230. MCFADDEN, *supra* note 112, at xvi, 172 (observing how legal thinking requires one to see the "forest" and not just the "trees" and how the legal principle of "coherence" requires one to fit together related cases, statutes, and other sources of law).

cases to find certain “common threads among them.”²³¹ Similarly, they look to rules to find linkages among them.²³² Through these techniques, lawyers often induce new general principles that they, in turn, seek to apply to the case at hand.

Of the sources that emphasize the importance of deductive reasoning to legal argumentation, many focus on the categorical syllogism as the paramount framework for legal analysis.²³³ This classical deductive thought process finds particular application in the lawyers’ task of applying generalized legal principles to specific facts of the case. Some scholars have viewed this application skill as central to what it means to “think like a lawyer.”²³⁴ In *Legal Argument: The Structure and Language of Effective Advocacy*, James Gardner asserts that his thesis is that “all legal argument should be in the form of [categorical] syllogisms.”²³⁵ He advances his theory not so much to highlight what legal reasoning requires as much as to contend what persuasive legal argumentation should entail.²³⁶

Despite this focus on the categorical form of deductive reasoning, hypothetical syllogisms also play a role in legal thinking. In fact, certain premises in a categorical syllogism can be transformed into hypothetical (“if-then”) statements to show the causal relationship between the two terms in the premise and help the reader better understand the rules at issue.²³⁷ Seeing these statements in a causal form is relevant

231. *Id.*; see also STROPUS & TAYLOR, *supra* note 13, at 53-63 (devoting an entire chapter to the topic of synthesis). In their study of law students, Saunders and Levine reported that several law students recounted how case synthesis was an important skill to thinking like a lawyer. Saunders & Levine, *supra* note 17, at 167.

232. LARUE, *supra* note 196, at 9.

233. See, e.g., *id.* at 172 (“In the kingdom of law, the syllogism reigns supreme.”). The classic example of a categorical syllogism is: “All men are mortal; Socrates is a man; Therefore, Socrates is mortal.” ALDISERT, *supra* note 117, at 39.

234. See, e.g., University of Montana School of Law, *Law Insider*, available at <http://www.umt.edu/LAWINSIDER/class/burnham/facts/slide56.html> (last visited Sept. 8, 2006) (defining thinking like a lawyer as “the ability to analyze the interplay of law and fact”).

235. GARDNER, *supra* note 122, at 3.

236. *Id.* at 4 (claiming that “[s]yllogistic argument provides the requisite appearance of certainty” and “makes the outcome of a case seem as certain and as mechanical as the output of a mathematical equation”).

237. For instance, the classic premise “All men are mortal” can be transformed into “If X is a man, then X is mortal.” See SAVELLOS & GALVIN, *supra* note 214, at 16-17, 63; DEBORAH A. SCHMEDEMANN & CHRISTINA L. KUNZ: LEGAL READING, REASONING, AND WRITING 12-18 (1999) (encouraging readers to transform legal rules into “if/then” statements so that they can better understand and apply those rules).

to legal thinking because causal reasoning is independently relevant in many areas of the law where issues of causation are pivotal.²³⁸

In sum, although many texts emphasize one form over the other, lawyers engage in both inductive and deductive forms of thinking in their problem solving. The two traditional forms of legal analysis, reasoning from statutes and from cases, both utilize deductive and inductive processes. Reasoning from statutes is often viewed as the archetype for deductive reasoning,²³⁹ but for instance, the entire jurisprudential area of statutory interpretation involves inductive thought processes.²⁴⁰ Edward Levi's "classic" conception of reasoning from cases also involves both deductive and inductive forms.²⁴¹ In his work, *An Introduction to Legal Reasoning*, he provides the following explanation for reasoning from cases:

238. For instance, criminal law and tort law, particularly the law of negligence, are especially concerned with issues of causation.

239. See, e.g., BURTON, *supra* note 4, at 43 ("Legal reasoning in the deductive form is most closely associated with reasoning from enacted law, which usually consists of general rules.").

240. For instance, in their casebook on legislation, William Eskridge and Philip Frickey discuss how statutory interpretation may involve discerning the purpose of a statute. To discern such a purpose, they offer the theory of Henry Hart and Albert Sacks as one approach to discerning such purpose: "[I]dentify instances where the statute unquestionably applies, and . . . use these points of reference (1) to shed light on the overall purpose of the statute and (2) to resolve close cases by reasoning by analogy from the unquestionable applications." WILLIAM N. ESKRIDGE, JR. & PHILIP P. FRICKEY, *CASES AND MATERIALS ON LEGISLATION: STATUTES AND THE CREATION OF PUBLIC POLICY* 576 (1988) (citing HENRY HART AND ALBERT SACKS, *THE LEGAL PROCESS: BASIC PROBLEMS IN THE MAKING AND APPLICATION OF LAW* 1157 (tent. ed. 1958)); cf. SAVELLOS & GALVIN, *supra* note 214, at 73-74 (discussing general analytical processes involved in statutory interpretation). Burton specifically identifies the following as sources of information to use in interpreting a statute:

- (1) the ordinary meanings of the words of an enactment, (2) judicial precedents applying the same enacted rule, (3) noncontroversial hypothetical cases, (4) cases or situations governed by other rules in the same enactment, (5) historical events or situations linked to the enactment, (6) contemporary economic and social practices at the time of enactment, and (7) the legislative history.

BURTON, *supra* note 4, at 73. A paradigmatic Supreme Court case that evidences the inductive aspects of statutory interpretation is *Church of the Holy Trinity v. United States*, 143 U.S. 457 (1892). In the case, which is discussed in several books on legal reasoning, the Court analyzed legislative history and events at the time of the statute's passage to determine its applicability to the situation at issue. *Id.* at 463, *construed in*, e.g., BURTON, *supra* note 4, at 70-73.

241. See Larry Alexander, *The Banality of Legal Reasoning*, 73 NOTRE DAME L. REV. 517, 523 (1998) (calling Levi's work as the "classic" work on legal reasoning).

It is a three-step process described by the doctrine of precedent in which a proposition descriptive of the first case is made into a rule of law and then applied to a next similar situation. The steps are these: similarity is seen between cases; next the rule of law inherent in the first case is announced; then the rule of law is made applicable to the second case.²⁴²

In this form, inductive reasoning predominates in the first two steps through the form of analogical reasoning and inductive generalization. Then, deductive reasoning predominates in the third step as the rule is applied to the case at hand.²⁴³

The flowchart in the Appendix therefore recognizes both forms. The syllogistic form is central to legal reasoning; and legal thinkers, whether they consciously recognize it or not, proceed through the form of a categorical syllogism to prove whether their legal conclusion is valid. The Appendix represents the deductive form as operating when the lawyer determines the rule that forms the major premise for the categorical syllogism applicable in the particular case.

As Elias Savellos and Richard Galvin contend, inductive thought processes come before and during this deductive form at several stages. They call deductive reasoning a “late comer” in the legal reasoning process:

The application of the syllogistic deductive model of judicial reasoning presupposes that the court has (i) identified the legally relevant facts of the case, (ii) determined exactly which legal rule applies to that case, and (iii) determined how that legal rule applies to those facts. Obviously the distinctive features of judicial reasoning involve determining the relevant facts, determining the appropriate rule, and fitting the rule to the facts (almost anyone could do the simple *modus penens* if all of this was in place). But none of these distinctive aspects of legal reasoning involves the deductive model itself.²⁴⁴

This understanding contrasts with problem solving in many non-legal contexts where once one decides upon the rule to apply, the application is straightforward. However, for lawyers, as L.H. LaRue contends, “rules don’t end arguments; they start arguments.”²⁴⁵ Rules in the legal context often only begin an analytical process because many rules are so broad that their application in all contexts is not clear.²⁴⁶

242. EDWARD LEVI, AN INTRODUCTION TO LEGAL REASONING 1-2 (1949).

243. Cf. SAVELLOS & GALVIN, *supra* note 214, at 77-78.

244. *Id.* at 63.

245. LARUE, *supra* note 196, at 4.

246. See *id.* at 5 (contrasting most legal rules with rules like the speed limit, of which the application is usually clear).

The Appendix therefore recognizes that inductive processes arise in determining: (1) the facts that are relevant to identifying the pertinent rule; (2) the content of the rule (the major premise of the syllogism) when the rule must be synthesized from multiple sources; and (3) the facts that are relevant to determining the content of the minor premise.²⁴⁷

2. *The Limits of Logical Thinking*

As the above discussion demonstrates, principles of logical reasoning are critical to thinking like a lawyer. Legal thinking, however, involves more processes than can be explained by logic alone, whether it be by formal deductive processes or more informal inductive processes. Legal thinking can properly be said to “include” logical reasoning but not be “exhausted by” such reasoning.²⁴⁸

First, much of the logical thinking in the legal context involves inductive forms. Inductive logic, by definition, can never categorically prove the validity of the conclusions of an argument.²⁴⁹ Thus, principles of judgment, apart from pure logical concerns, determine whether or not a legal argument is a good one. For instance, principles of statutory construction, whether one is construing the meaning of a term or discerning legislative intent, do not involve only principles of logic.²⁵⁰

More importantly, although analogical reasoning is central to legal thinking, it only provides the “method” such thinkers are employing when they compare the case at hand to other decisions.²⁵¹ The heart of analogical reasoning in a legal context goes to which decisions are relevant and, more specifically, which facts in those decisions are

247. Cf. SVELLOS & GALVIN, *supra* note 214, at 63. As the Appendix reflects, more than one rule may be applicable in a resolving a legal problem. In elementizing the rule, each element of the rule may become the major premise in its own categorical syllogism. Also, the problem may be polysyllogistic such that the legal thinker will need to go through multiple syllogisms to reach the ultimate conclusion. See ALDISERT, *supra* note 117, at 64 (“A polysyllogism is a series of syllogisms in which the conclusion of one is the premise of the next.”); see also *Inter-Tribal Council of Nevada, Inc. v. Hodel*, 856 F.2d 1344, 1349-50 (9th Cir. 1988) (analyzing a polysyllogism in one of the parties’ arguments). Cf. SVELLOS & GALVIN, *supra* note 214, at 63.

248. SVELLOS & GALVIN, *supra* note 214, at 82; see also BURTON, *supra* note 4, at 57 (“Like analogical reasoning from cases, deductive legal reasoning from rules has its uses and abuses. Good lawyers and judges neither accept these forms nor reject them as forms. They use them to benefit from their strengths and supplement them to avoid their weaknesses.”).

249. LIND, *supra* note 140, at 9; see also *supra* note 220.

250. SVELLOS & GALVIN, *supra* note 214, at 82-83; see also BURTON, *supra* note 4, at 55-56 (discussing the analytical process of determining legislative intent).

251. SVELLOS & GALVIN, *supra* note 214, at 82.

relevantly similar.²⁵² Scholars have recognized this notion in applying logical reasoning to the law. H.L.A. Hart addressed this issue in his seminal work *The Concept of Law*:

[T]hough "Treat like cases alike and different cases differently" is a central element in the idea of justice, it is by itself incomplete and, until supplemented, cannot afford any determinate guide to conduct. . . .

[U]ntil it is established what resemblances and differences are relevant, "Treat like cases alike" must remain an empty form. To fill it we must know when, for the purposes in hand, cases are to be regarded as alike and what differences are relevant.²⁵³

Determining relevance is guided by rules of logic, but it is not prescribed by them. The sections below discuss other areas where legal thinking goes beyond pure principles of logic.

D. *Arguing from the Rules*

Underlying much of the above discussion is an emphasis on rules; indeed, a fundamental aspect of legal reasoning is the preeminence of "rules" of law.²⁵⁴ From the Babylonian Code of Hammurabi, to Jewish law, to Greek and Roman law, the Western conception of law developed from a strong rule-based heritage.²⁵⁵ Modern legal philosophers have challenged this rule-based conception of law. They have asserted, among other things, that the rule-based approach is merely a façade because how rules are applied to facts reflects the power of the decisionmaker, not the sanctity of rules.²⁵⁶ Nevertheless, as Patrick

252. Cf. *id.* at 82; BURTON, *supra* note 4, at 40 (asserting that analogical reasoning in the law requires three steps: "identifying an authoritative base point, or precedent; (2) identifying factual similarities and differences between the precedent and the problem case; and (3) judging whether the factual similarities or the differences are more important").

253. H.L.A. HART, *THE CONCEPT OF LAW* 155 (1961).

254. Not one precise definition exists of what is meant by a legal "rule." Surveying different definitions, however, leads to a family of characteristics that describe the term. For instance, Burton describes rules as those provisions that "designate classes of cases and affix legal consequences to membership in those classes." BURTON, *supra* note 4, at 97. Savellos and Galvin define legal rules more broadly as "statement[s] of legal requirement(s) in a given set of circumstances." SAVELLOS & GALVIN, *supra* note 214, at 72. To decrease the circularity of their definition, "of legal requirement(s)" could be replaced with "of law that imposes requirements."

255. MCFADDEN, *supra* note 112, at 186.

256. *Id.* at 186; see also JEFFREY A. BRAUCH, *IS HIGHER LAW COMMON LAW? READINGS ON THE INFLUENCE OF CHRISTIAN THOUGHT IN ANGLO-AMERICAN LAW* 86 (1999) (discussing the critical legal studies movement and its view that law is simply designed to perpetuate power structures). Even such philosophers recognize, however, that legal

McFadden responds, such challenges are “meta-critiques” that criticize an underlying assumption of the American system.²⁵⁷ They come from “outside” the system and do not affect what lawyers and judges do “inside” the system. Regardless of whether one believes that law is merely a mask for power, the lawyer working inside the system will still file with the court briefs and memoranda that cite the respective controlling authorities.²⁵⁸ Moreover, such skeptical approaches to law are largely unhelpful to law students and practicing lawyers who are faced with legal authority that binds them in the instance at issue. As Stephen Burton observes, “[H]ow can a genuine skeptic function as an effective lawyer if legal reasoning cannot be relied on to connect law with official action?”²⁵⁹

Books designed to prepare students for law school emphasize the primacy of rules in legal thought. In his *Guide to the Study of Law: An Introduction*, L.H. LaRue begins by discussing how lawyers’ arguments relate to rules.²⁶⁰ He notes that nonlawyers customarily argue “about” rules in arguing whether the rules are good rules.²⁶¹ LaRue contends that lawyers, in contrast, spend most of their time “arguing from within rules.”²⁶² He adds that lawyers are normally obliged to take the rules and argue for a particular result based on the application of those rules.²⁶³ Other scholars have emphasized the importance of rules by contending that the legal rules are what link the facts in a situation to the legal conclusion.²⁶⁴ Students in the Regent survey further con-

thinkers must be able to understand and work with rules in the legal structure. See Duncan Kennedy’s endorsement of the book *Getting to Maybe: How to Excel on Law School Exams* by Richard Michael Fischl and Jeremy Paul. In the endorsement, Kennedy contends that the book, which discusses arguing from the rules, will help law students “think like a lawyer.” FISCHL & PAUL, *supra* note 116, at back cover.

257. MCFADDEN, *supra* note 112, at 186.

258. *Id.* at 186-87.

259. BURTON, *supra* note 4, at 3.

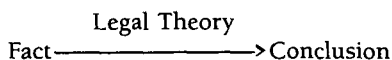
260. LARUE, *supra* note 196, at 3.

261. *Id.* For instance, LaRue observes that even little children develop the skill of arguing whether the rules for bedtime are good rules and that political argument is customarily about what kinds of laws (or rules) government should adopt. *Id.*

262. *Id.* at 3-4.

263. *Id.* He further notes that law schools therefore focus on training students to argue from within the system by taking a rule and applying it to the facts in a particular case. *Id.*

264. BRAND & WHITE, *supra* note 3, at 141. These authors represent this relationship visually by the following chart:



Id.

firmed how thinking like a lawyer involves an emphasis on working with “rules.”²⁶⁵

This focus on rules relates to other issues surrounding the legal concept of authority.²⁶⁶ First, in arguing from the rules, legal thinkers are concerned with whether those rules come from a source that is binding or merely persuasive in the particular jurisdiction governing the resolution of the problem at issue.²⁶⁷ This emphasis on rules also reflects the traditional notion of judicial deference. Law students are taught in the beginning of their legal education the principle of *stare decisis*, “that precedent binds.”²⁶⁸ They are also taught the related principles of judicial deference in which judges defer to legislative enactments like constitutions and statutes.²⁶⁹ In fact, these instances of judicial deference are only two examples of a pervasive principle under which judges are constantly being asked to defer to other bodies.²⁷⁰ Even in decisions seen as judicially activist, judges point to authority to support their decision; they do not proceed whimsically without justifying their departure from previous decisions.²⁷¹

265. For instance, one third-year student wrote, “I find myself in everyday life now searching for the ‘rule.’”

266. BRAND & WHITE, *supra* note 3, at 141, 145.

267. See SAVELLOS & GALVIN, *supra* note 214, at 64-65.

268. MCFADDEN, *supra* note 112, at 183 (“We are all taught from the beginning of law school, judges and lawyers alike, that precedent matters, that precedent binds.”); see also BURTON, *supra* note 4, at 115.

269. MCFADDEN, *supra* note 112, at 182-83.

270. Deference occurs not only through case precedent and legislative enactments but also with other branches of government. For instance, the Supremacy Clause of the Constitution instructs states to defer to the federal government in certain cases. *Id.* at 183-84.

271. See James M. Boland, *Constitutional Legitimacy and the Culture Wars: Rule of Law or Dictatorship of a Shifting Supreme Court Majority?*, 36 CUMB. L. REV. 245, 287-91 (2005-06) (discussing the authority the Supreme Court presented in changing the law of segregation in *Brown v. Board of Education*, 347 U.S. 483 (1954)). McFadden also presents several arguments in support of the import of judicial deference:

In most cases, of course, there will be someone on the other side calling for intervention and judicial action. But there is a great deal of argument arrayed on the side of deference: the principle of legality; a tradition of liberalism that seeks constantly to expand the boundaries of acceptable behavior; and a set of constitutional freedoms—of religion, association, and speech—that (in addition to their technical legal content) reflect a spirit of tolerance. All of this presses on judges, urging them to bend to the will of others, to refrain from interfering without the most substantial reasons for doing so.

MCFADDEN, *supra* note 112, at 185.

This principle of deference is related to the foundational principle of the “rule of law”²⁷² and is so wedded to our legal system that it is part of thinking like a lawyer. Classic legal thinking can involve arguing that the applicability of a rule in a particular situation leads to an unjust result, but the importance of the rule of law underscores the presumption that the laws are enforceable and are not merely “guidelines or presumptions.”²⁷³

This emphasis on authority and deference contrasts with logical thinking generally. For instance, in pure logic, one is not bound to follow an argument once the logical flaw in that argument is revealed.²⁷⁴ In a legal context, if a lawyer believes that a judicial decision is illogical, the lawyer may point out the logical flaw to the court. Nevertheless, if the decision carries precedential weight in the particular jurisdiction at issue, the lawyer must argue “within the rule” by contending that his position is justifiable when the rule of the decision, however illogical, is applied to the particular case.²⁷⁵

This emphasis on authority and deference also gives rise to the tension that may exist at times between enforcing laws and promoting broader principles of justice. Lawyers hesitate in arguing that higher principles trump a straightforward application of the rule because traditional legal thinking holds “the belief that the too-easy escape from rules, even in just one case, does *systematic* harm to the legal process.”²⁷⁶

Lawyers’ fascination with rules, however, is apparent even in their appeals to justice. Such appeals are presented as appeals to other rules, such as the higher rules associated with moral truth, including natural law.²⁷⁷ Lawyers argue the applicability of rules based on other rules. They generally do not argue for a particular result by attacking

272. SAVELLOS & GALVIN, *supra* note 214, at 71 (defining the phrase “rule of law” as “the objective and principled settlement of disputes via the employment of a stable system of laws”); *see also* BURTON, *supra* note 4, at 2 (discussing the relevance of the “rule of law” to legal study).

273. *See* MCFADDEN, *supra* note 112, at 187 (recognizing that, although the “spirit of the times” might favor a soft interpretation or rules, the American government is a government “of laws not of men”).

274. *See* SAVELLOS & GALVIN, *supra* note 214, at 82.

275. *Cf. id.* at 82 (adding that the principle of *stare decisis* creates a “duty” for judges to follow binding precedent even though the judge believes the prior decision is incorrect). Savellos and Galvin’s recognition of such a duty, however, does not preclude the fact that judges seek to distinguish such controlling precedent or may point to problematic aspects of a prior ruling in seeking to apply it.

276. MCFADDEN, *supra* note 112, at 188.

277. *See, e.g.*, U.S. v. Lynch, No. 96-6137, 1996 WL 717912, at *2 (2d Cir. Dec. 11, 1996) (considering defendant’s argument that an injunction was improper because it

the rule per se but by contending that the rule should be applied in a particular way based on another rule that affects its application.²⁷⁸ For instance, lawyers may contend that determining whether an individual is negligent should be limited by broader rules providing the rationale for the negligence standard in the first place.²⁷⁹ In sum, belief in the “sanctity of rules” is a hallmark of traditional legal thinking.²⁸⁰

E. *Seeing All Sides*

Scholars emphasize that another component of legal reasoning, and therefore of “thinking like a lawyer,” is the skill of being able to analyze an issue from the perspective of various parties.²⁸¹ For instance, lawyers in a litigation context should be able to see an issue not only from their client’s perspective, but also from the perspective of the other parties, the judge, and the jurors.²⁸²

violated natural law, as illustrated by Pope John Paul II’s encyclical *Evangelium Vitae* and Thomas Aquinas’ *Summa Theologica*).

278. See LARUE, *supra* note 196, at 12. LaRue specifically breaks down legal analysis of rules into “logical calculations,” in which (1) lawyers look for the ways rules are linked together and then break down the rules into their component parts, and (2) they conduct “extravagant leaps into ambiguity and principle,” in which they look for ambiguity in the rules and then argue for a particular application of the rules based on other relevant rules. See *id.* at 9-13.

279. See, e.g., FISCHL & PAUL, *supra* note 116, at 589-60 (discussing the distinction between arguing that a case should be decided by the letter of the rule versus the rationale behind the rule).

280. See MCFADDEN, *supra* note 112, at 186. McFadden adds that law is by nature conservative because it presumptively assumes that rules developed and applied in the past should be applied again in the future:

This conservatism is neither politically charged nor optional. . . . If one starts with the law, one unavoidably starts with the past, with its structures, content, and terms of debate. Deciding when to break with the past, when to stop conserving and begin building, has no easy answer. We can never be sure that we are right. We can only do our best, as lawyers and judges, arguing and deciding with all the honesty, intelligence, and even bravery we can muster.

Id. at 189.

281. Select students in Saunders and Levine’s study reported how law school taught them to argue a position from differing perspectives. Saunders & Levine, *supra* note 17, at 164. For instance, one student noted that he learned that thinking like a lawyer included “the ability to influence and take certain facts or circumstances and argue them in different ways to show that a certain set of facts can come to two different conclusions . . . [i]nstead of . . . down to one perfect true point.” *Id.*

282. See *id.* at 193 (reprinting a student essay on “thinking like a lawyer,” which described how lawyers should be able to think from these persons’ perspectives).

Studies on law students support these scholars' views. Specifically, in Saunders and Levine's study of law students' impressions of what it means to think like a lawyer, the students focused the most on the skill of being able to see an issue from multiple perspectives.²⁸³ These results were confirmed in the Regent survey in which students stressed this aspect of thinking like a lawyer perhaps more than any other. For instance, one third-year student wrote, "After three years I have learned that the answer to every question is 'it depends.'"²⁸⁴ Another third-year student wrote, "Thinking like a lawyer means considering a problem from every possible angle."²⁸⁵

This cognitive fluidity is relevant to lawyers' advocacy. From seeing various positions, lawyers often do not make arguments in a

283. *Id.* at 169. Saunders and Levine note how this ability relates to William Perry's scheme on intellectual and ethical development in which he describes how individuals, on their way to the final phase of generalized relativism, go through a phase of multiplism, in which they recognize that there may be various perspectives on an issue and that others have a right to their opinion. *Id.* at 136, 168-69 (discussing WILLIAM G. PERRY, *FORMS OF INTELLECTUAL AND ETHICAL DEVELOPMENT IN THE COLLEGE YEARS: A SCHEME* (1970)). One student in their study opined that lawyers argue all sides to the extreme end of challenging everything:

If I were introduced to a woman who was described as someone who "thinks like a lawyer[,]" . . . I would expect her to play devil's advocate to my every idea and to follow her own line of logical reasoning to its maddening end. She would ask me penetrating questions I would rather not answer. She would counterpoint my every point and ask me one too many "whys?" She would never allow sleeping dogs to lie or leave any stone unturned, questioning everything, no matter how much a given I believe it to be. I would fully expect her to work and prod me until every weak point was exposed and strength was checked and validated.

Id. at 153 n.113.

284. One result of developing this ability is the tendency for legal thinkers to believe that there are no absolutes. For instance, in their study, Saunders and Levine reported how law students recounted that they learned in law school that there is no absolute right perspective in the law. Saunders & Levine, *supra* note 17, at 163-64, 169 n.141, 170, 172, 178. For instance, one student commented: "Here I thought that there was really an absolute rule a case would come up with but now I know that there isn't [sic] any absolutes." *Id.* at 163. Another student commented: "I think before [law school] I was sort of thinking it was going to be all very black and white. . . . I think now there are a lot of answers. You can pretty much make the answer be whatever you want it to be." *Id.* at 178. However, being able to see an issue from multiple perspectives does not equal an abandonment of a belief in absolutes. The rise of the religious lawyering movement testifies that modern legal thinkers can still believe in absolutes. See, e.g., Robert K. Vischer, *Héretics in the Temple of Law: The Promise and Perils of the Religious Lawyering Movement*, 19 J.L. & RELIGION 427, 474 (2003-04) (recognizing most religious lawyers' belief in absolute truth).

285. Being able to argue an issue from multiple perspectives does not mean that lawyers should do so in every case, just that they have the skill to be able to do so.

binary, technical way in which legal analysis always leads to nice, clean “yes or no” responses. They thus are forced to argue in the alternative. Some writers discuss this skill in persuasive legal writing when lawyers argue a second alternative theory without admitting that the first theory is unsound.²⁸⁶ Moreover, being able to recognize and dismiss reasonable counterarguments to a position is one of the primary characteristics of a good argument in general.²⁸⁷

Several students in the Regent survey responded that this aspect of thinking like a lawyer requires lawyers to process information in a “non-emotional way,” “attempting to remove emotions from the situation/problem.” These responses stress the objectivity that characterizes legal thinking.²⁸⁸ Seeing an issue from multiple perspectives, however, does not mean that thinking like a lawyer requires that lawyers emotionally detach themselves from their work. As one Regent student commented, “Thinking like a lawyer requires you to think with your brain and your heart.” True integrity requires that lawyers contemplate how their personal morality affects their work as a lawyer. Lawyers may advocate causes with which they personally disagree, but to maintain their integrity, they must be able to explain why advocating such causes does not violate their personal moral code.²⁸⁹

F. Attending to Detail

Implicit in much of the above discussion is another cognitive skill lawyers develop: attention to detail. Lawyers, in general, are very detail oriented.²⁹⁰ Scholars have recognized this attention to detail by

286. GARDNER, *supra* note 122, at 69.

287. DAMER, *supra* note 137, at 6, 15 (describing the “rebuttal principle,” which holds that “[o]ne who presents an argument for or against a position should attempt to provide an effective rebuttal to all serious challenges to the argument or the position it supports and to the strongest argument on the other side of the issue”).

288. A student in Saunders and Levine’s study similarly opined that lawyers are not “distracted in [their] thinking by emotions.” Saunders & Levine, *supra* note 17, at 171, 92.

289. See Larry O. Natt Gantt, II, *Integration as Integrity: Postmodernism, Psychology, and Religion on the Role of Moral Counseling in the Attorney-Client Relationship*, 16 REGENT UNIV. L. REV. 233, 248-51 (2003-04) (“At some level . . . an integrated individual must be able to justify why . . . circumstantial changes justify his behavioral changes. An individual cannot simply be defined by the role, but instead must maintain a core self across roles.”); cf. Saunders & Levine, *supra* note 17, at 175 n.145 (reporting a law student’s comment on how legal education made her reflect on how it is difficult for individuals to separate their emotions from their intellectual exercises).

290. Many students in Saunders & Levine’s study emphasized that they thought “attention to detail” was important to thinking like a lawyer. Saunders & Levine, *supra* note 17, at 168, 192 (explaining, *inter alia*, how one student reported that

contending that any good legal argument is characterized by “precision.”²⁹¹ Legal rules and principles consistently make fine distinctions; the use of one word over another or the placement of a particular punctuation mark may dramatically change the legal import of a text.²⁹² Legal thinkers thus must recognize those distinctions both to understand the law and to know how to apply it to a particular factual scenario.²⁹³ Several students in the Regent survey stressed the importance of precision and detail orientation in legal thinking.²⁹⁴ At the same time, however, legal thinking involves being able to discern which distinctions are important and which ones are not.²⁹⁵ Knowing the import of distinctions is related to the skill noted above regarding determining relevance.²⁹⁶

Being attendant to detail is intricately linked to how lawyers read. Although not a cognitive component of thinking, reading is so fundamental to acquiring information in the legal context that how lawyers read relates to how they think.²⁹⁷ As one legal scholar observed, “reading is thinking.”²⁹⁸ Discussing the fine attributes of legal reading is

“careful and thorough analysis” was an important lawyering skill while another student described that thinking like a lawyer means to “think precisely” and be able to “focus on details”).

291. See MCFADDEN, *supra* note 112, at 171.

292. See SCHWARTZ, *supra* note 2, at 12, 99 (noting how a legal conclusion can depend on how words are defined and how conjunctions and punctuation marks are used).

293. See MCFADDEN, *supra* note 112, at 171 (observing the fact that the law makes “all kinds of distinctions”). Indeed, judges and lawyers are continually having to discern the relevance of fine distinctions of language. For a recent representative case, see, e.g., *Fletcher Hill, Inc. v. Crosbie*, 872 A.2d 292 (Vt. 2005) (considering the distinction among the terms “prevailing party,” “substantially prevailing party,” and “successful” in interpreting a fee shifting statute).

294. For instance, one third-year student wrote that to think like a lawyer means, in part, to “think and talk precisely.” Another second-year student wrote that to think like a lawyer is “for your attention to be drawn to detail and particularly to be able to spot automatically anything unusual.”

295. See MCFADDEN, *supra* note 112, at 171.

296. See *supra* notes 143-88 and accompanying text. Law students are customarily first tested on their ability to discern the relevant from irrelevant information when they face their first essay question on a law school exam. The traditional “issue-spotter” essay question requires students to assess which facts in the question point to particular legal issues.

297. One third-year student in the Regent survey, in fact, defined to think like a lawyer as “to read carefully: every word, comma, period, etc. matters!” See also SCHWARTZ, *supra* note 2, at 11 (reasoning that law students need to develop the skills of reading with attention to detail).

298. Ruth Ann McKinney, *Teach Them to Read, and They’ll Read for a Lifetime: Some Thoughts About How Academic Support Professionals Can “Turn On Light Bulbs”* By

beyond the scope of this article.²⁹⁹ However, studies of legal reading illumine that good legal readers are purposeful; they are aware of the context of their reading as they proceed, and, although detail-oriented, they do not get mired in the details to the extent of losing sight of the main ideas in the reading.³⁰⁰ Thus, lawyers' cognitive orientation to solve problems affects their cognitive approach to reading; they read law strategically with the underlying purpose that it is to help them solve the problem before them.

G. Recognizing the "Big" Issues

In addition to the above cognitive components about how lawyers process information and solve problems, the question arises whether thinking like a lawyer necessitates that lawyers recognize how the legal information they are processing relates to "big" issues, like morality, ethics, and public policy.³⁰¹ On this question, several students in the Regent survey concluded that thinking like a lawyer involves moral

Effective Reading Strategies, THE LEARNING CURVE, Spring 2005, at 3, 4, available at <http://www.law.umkc.edu/faculty/profiles/glesnerfines/asp/Spring2005LearningCurve.pdf>.

299. For insight on legal reading, see RUTH ANN MCKINNEY, *READING LIKE A LAWYER* (2005). In McKinney's article, *Teach Them to Read*, *supra* note 298, she also cites the following recommended resources: Linda L. Berger, *Applying New Rhetoric to Legal Discourse: The Ebb and Flow of Reader and Writer, Text and Context*, 49 J. LEG. EDUC. 155 (1999); Scott J. Burnham, *Critical Reading of Contracts*, 23 LEGAL STUDIES FORUM 391 (1999); Dorothy H. Deegan, *Exploring Individual Differences Among Novices Reading in a Specific Domain: The Case of Law*, 30 READING RES. Q. 154 (1995); Peter Dewitz, *Reading Law: Three Suggestions for Legal Education*, 27 U. TOL. L. REV. 657 (1996); Elizabeth Fajans & Mary R. Falk, *Against the Tyranny of Paraphrase: Talking Back to Texts*, 78 CORNELL L. REV. 163 (1993); Christina L. Kunz, *Teaching First-Year Contracts Students How to Read and Edit Contract Clauses*, 34 U. TOL. L. REV. 705 (2003); Mary A. Lundeberg, *Metacognitive Aspects of Reading Comprehension: Studying Understanding in Legal Case Analysis*, 22 READING RES. Q. 407 (1987); Laurel Currie Oates, *Beating the Odds: Reading Strategies of Law Students Admitted Through Alternative Admissions Programs*, 83 IOWA L. REV. 139 (1997); Michael Hunter Schwartz, *Teaching Law Students to be Self-Regulated Learners*, 2003 MICH. ST. DCL L. REV. 447 (2003); James F. Stratman, *The Emergence of Legal Composition as a Field of Inquiry: Evaluating the Prospects*, 60 REV. EDUC. RES. 153 (1990).

300. See McKinney, *Teach Them to Read*, *supra* note 298, at 4. This principle relates to the survey result from a second-year Regent student who wrote that to "think like a lawyer" means "to look at the big picture and still concern yourself with every detail."

301. MCFADDEN, *supra* note 112, at 173 (using the adjective "big" to refer to these larger concerns). In addition to the "big" concerns noted in the text, lawyers must consider other non-legal factors the client deems important to solving the client's legal problems. For instance, clients may emphasize goals as diverse as promoting family harmony and minimizing financial cost, and lawyers must consider those goals in solving the legal problems at issue.

dimensions. For instance, one third-year student wrote, "I think a good lawyer should always think, 'Am I acting with integrity?' and always keep justice in mind."³⁰²

Conceiving of legal thinking as involving moral considerations is not unique to students in the Regent survey; in their research on thinking like a lawyer, Saunders and Levine discuss extensively how developing the skill of thinking like a lawyer is linked to moral and ethical development.³⁰³ Additionally, regarding public policy, numerous texts that instruct entering law students on the fundamentals of legal reasoning underscore the relevance of public policy to such reasoning.³⁰⁴ A functional perspective on law is now so ingrained in legal education that, in the words of one author writing for law students, policy analysis has become "indispensable."³⁰⁵

The rise of these "extralogical" concerns gives rise to the issue of how they fit within the other cognitive components of thinking like a lawyer.³⁰⁶ First, although syllogistic thinking forms the structure of legal reasoning,³⁰⁷ logic alone does not inform the content of the premises in such reasoning. Sometimes the major premises are given, such as when judges and lawyers are asked to apply a specific statute.³⁰⁸ At

302. Another second-year student wrote that to "think like a lawyer" "means that I must consider ethical issues and consider the best interests of my client as I think through different issues."

303. For instance, Saunders and Levine devote considerable attention to how law students' conceptions of thinking like a lawyer relate to William Perry's model of intellectual and ethical development and Lawrence Kohlberg's theory on the stages of moral development. See Saunders & Levine, *supra* note 17, at 135-40. Furthermore, students in their study discussed the moral and ethical aspects of legal thinking. See *id.* at 171. Saunders and Levine do not distinguish between moral and ethical concerns, and such a distinction is not necessary for purposes of this Article. The issue is whether legal thinking involves matters beyond the law itself (as defined by statutory and common law rules).

304. See, e.g., HUHNS, *supra* note 2, at 51-68 (discussing policy arguments as one of the "five types of legal arguments"); SCHWARTZ, *supra* note 2, at 13-14.

305. MCFADDEN, *supra* note 112, at 178.

306. I prefer the term *extralogical* here because it conveys that these concerns are customarily considered outside the traditional confines of logical thinking but that the concerns still are not illogical or nonlogical because they can include logical propositions.

307. See HUHNS, *Syllogistic Reasoning*, *supra* note 130, at 818 (noting that "although judicial reasoning is syllogistic in form, in substance it is evaluative").

308. ALDISERT, *supra* note 117, at 63 (citing BENJAMIN CARDOZO, *THE NATURE OF THE JUDICIAL PROCESS* 19 (1921)).

times, however, legal thinkers decide the content of their major premise based on “value judgments.”³⁰⁹

Prior to the Civil War, lawyers and judges who needed to induce rules based on such judgments drew upon principles of biblical and natural law.³¹⁰ After the Civil War, legal theorists “revolt[ed] against objective concepts of right and wrong.”³¹¹ Many followed the advice of Oliver Wendell Holmes that “‘the true science of the law’ lay not in ‘logical development as in mathematics’ but rather in ‘the establishment of its postulates upon accurately measured social desires.’”³¹² Similarly, Benjamin Cardozo opined that history, “public policy,” and “the good of the collective body” should help legal thinkers determine the content and the limits of the premises in legal analysis.³¹³

This shift in legal thinking was more of content than of form. In his summary of the new syllogistic logic of modern legal pragmatism, John Dewey wrote in 1924:

The problem is not to draw a conclusion from given premises; that can best be done by a piece of inanimate machinery by fingering a key-board. The problem is to *find* statements, of general principle and of particular fact, which are worthy to serve as premises. As a matter of actual fact, we generally begin with some vague anticipation of a conclusion . . . , and then we look around for principles and data which

309. *Id.* at 64. Selecting this premise is critical because this premise serves as the filter through which the rules of logic are applied. *Id.* at 65-66.

310. See Boland, *supra* note 271, at 249-54 (surveying the reliance of the Founders and of early courts on the principles of natural law and biblical truth); see also, e.g., ALBERT W. ALSHULER, *LAW WITHOUT VALUES* 9 (2000) (reasoning that, prior to the Civil War, those who shaped American jurisprudence founded their theories on natural law); MCFADDEN, *supra* note 112, at 174 (“At the time of America’s independence from England, our country’s founders were steeped in the traditions of natural law. . . .”); HUHN, *supra* note 2, at 7-8 (“Americans of the Revolutionary era and the early Nineteenth Century shared a profound faith in the concept of Natural Law, and fought to establish a government that recognized the ‘unalienable rights’ of mankind.”); PERRY MILLER, *THE LIFE OF THE MIND IN AMERICA* 165 (1965) (reporting how Nathaniel Chipman of Vermont expressed that every law under the Constitution “is ultimately derived from the laws of nature, and carries with it the force of moral obligation”).

311. ALSHULER, *supra* note 310, at 10, *quoted in* Boland, *supra* note 271, at 254-55.

312. Thomas C. Grey, *Langdell’s Orthodoxy*, 45 U. PITT. L. REV. 1, 50 (1983) (quoting OLIVER WENDELL HOLMES, *COLLECTED LEGAL PAPERS* 225-26 (1920)); see also Oliver Wendell Holmes, *The Path of the Law*, 110 HARV. L. REV. 991, 994 (1997), *reprinted from* 10 HARV. L. REV. 457 (1897) (“The prophecies of what the courts will do in fact, and nothing more pretentious, are what I mean by the law.”). On this point, Boland adds, “For pragmatists, however, consistency with former principles is not the goal. The goal is the ‘social end.’” Boland, *supra* note 271, at 286.

313. BENJAMIN N. CARDOZO, *THE NATURE OF THE JUDICIAL PROCESS* 71-72 (1921).

will substantiate it or which will enable us to choose intelligently between rival conclusions.³¹⁴

New legal philosophies have emerged since the appearance of legal pragmatism.³¹⁵ However, many current legal reasoning texts continue to carry forward Dewey's thinking by conjoining emphasis on logical form with recognition of the extralogical influences on the law.³¹⁶ For instance, in his text *Logic for Lawyers* that is read by many law students, Ruggero Aldisert writes:

In exercising this choice [of selecting the syllogism's premises], courts do not necessarily appeal to any rational or objective criteria. Essentially they exercise a value judgment and should be recognized flatly as doing so. Moreover, because courts have the power to alter the content of rules, no immutability attaches to their major or beginning premises. The desirability of *elegantia juris*, with its concomitants of stability and reckonability, often must be subordinated to the desirability of rule revision in the light of claims, demands or desires asserted in the public interest in changing societal conditions.³¹⁷

314. John Dewey, *Logical Method and Law*, 10 CORNELL L. Q. 17, 21-23 (1924), quoted in Boland, *supra* note 271, at 276 (discussing this shifting view of legal thinking). Benjamin Cardozo similarly represented this change in legal thinking. See Boland, *supra* note 271, at 274, 276 (observing how Cardozo called the field of constitutional law as dominated by the "free decision" in which the "great generalities of the [C]onstitution have a content and a significance that vary from age to age") (quoting BENJAMIN N. CARDOZO, *THE NATURE OF THE JUDICIAL PROCESS* 17 (1921)).

315. See MCFADDEN, *supra* note 112, at 175 (noting the emergence of "critical legal studies, feminist jurisprudence, critical race studies, and the law as literary text").

316. See, e.g., HUHN, *supra* note 2, at 10-11 ("[T]he study of law is not a science. . . . The lawyer's task is not to deduce the law from an unchanging set of first principles, but rather to predict how the law will emerge from a number of sources and a welter of conflicting values.").

317. ALDISERT, *supra* note 117, at 674-65. Aldisert adds that logical principles deal with "formal correctness" and that reasoning that is logically sound may not be "desirable" in other respects. *Id.* at 65. Patrick McFadden describes this change in American jurisprudence as the "trend" that "the link between law and morality has been deteriorating since the middle of the Nineteenth Century." MCFADDEN, *supra* note 112, at 175. In contrast to this overall trend, the last twenty years has witnessed a renewed emphasis on religious legal education, with the emergence and revitalization of religiously affiliated law schools. For general discussions on the import of religiously-affiliated law schools, see *Symposium on Religiously Affiliated Law Schools*, 78 MARQ. L. REV. 247 (1995); *Symposium on Religiously Affiliated Law Schools*, 11 REGENT U. L. REV. 1 (1998-99); see also Jeffrey A. Brauch, *It Sounded Great in the Glossy Brochure . . . So Where is It? Carrying Out the Mission at a Mission Driven School*, 33 U. TOL. L. REV. 1 (2001) (discussing the issue of implementing a mission at a religiously-affiliated law school); Randy Lee, *Are Religiously Affiliated Law Schools Obsolete in America? The View of an Outsider Looking in*, 74 ST. JOHN'S L. REV. 655, 662-63 (2000) ("It has been argued that American legal society has lost the meaning of the religious

Principles of *stare decisis* remain primary, and when courts depart from precedent, they must justify their departure. Nevertheless, courts today often employ sociopolitical and pragmatic rationales for such departures. Recent Supreme Court decisions highlight these rationales.³¹⁸

These changes in legal philosophy lead to the question of whether thinking like a lawyer generally has changed from concentrating on applying accepted, fundamental rules to encompassing more readily a challenge to whether the rules should serve as rules in the first place.³¹⁹ Lawyers today make arguments before courts and other parties in which they contend that the courts should adopt a rule of law that does not directly emanate from a statute, the Constitution, or previous caselaw. Legal educators similarly contend that law students

concepts that make justice possible: concepts like forgiveness, redemption, love as sharing . . . , and even community. Religiously affiliated law schools are uniquely situated to teach their students to reinvigorate the law with these concepts.”).

318. For instance, see *Planned Parenthood of Southern Pennsylvania v. Casey*, 505 U.S. 833 (1992), where the Court reasoned:

Even when the decision to overrule a prior case is not, as in the rare, latter instance, virtually foreordained, it is common wisdom that the rule of *stare decisis* is not an “inexorable command,” and certainly it is not such in every constitutional case. . . . Rather, when this Court reexamines a prior holding, its judgment is customarily informed by a series of prudential and pragmatic considerations designed to test the consistency of overruling a prior decision with the ideal of the rule of law, and to gauge the respective costs of reaffirming and overruling a prior case. Thus, for example, we may ask whether the rule has proven to be intolerable simply in defying practical workability; whether the rule is subject to a kind of reliance that would lend a special hardship to the consequences of overruling and add inequity to the cost of repudiation; whether related principles of law have so far developed as to have left the old rule no more than a remnant of abandoned doctrine; or whether facts have so changed, or come to be seen so differently, as to have robbed the old rule of significant application or justification.

Id. at 854 (citations omitted), *quoted in* SAVELLOS & GALVIN, *supra* note 214, at 70; see also *Roper v. Simmons*, 543 U.S. 551 (2005) (overturning a prior decision to hold that the Eighth and Fourteenth Amendments prohibit execution of individuals who were under eighteen years of age at time of their capital crimes); *Lawrence v. Texas*, 539 U.S. 558 (2003) (overruling a prior decision to hold that it was unconstitutional for a Texas statute to make it a crime for two individuals of the same sex to engage in certain intimate sexual conduct).

319. *Cf.* Boland, *supra* note 271, at 292 (reasoning that modern pragmatic jurisprudence employs sociological considerations, which “which work their way backwards to a major premise that is forever changing depending on the desired and pre-ordained outcome”).

should learn not just the rules of law but “how to persuasively argue for a favorable interpretation of the law or for a change in the law.”³²⁰

The rise of this type of argument, however, has not fundamentally changed the cognitive components of legal thinking. As noted, the robustness of the syllogistic form in the face of this dramatic shift in legal thinking underscores the centrality of logical thinking to “thinking like a lawyer.”³²¹ Moreover, the fact that lawyers are considering more than the civil law in making their arguments is not a new cognitive construct. Lawyers have always looked beyond the civil law to inform their understanding of the law.³²² Throughout history lawyers have looked to biblical precepts and principles of natural law; and today, lawyers are also looking to psychological, sociological, sociopolitical, and a host of other types of concerns.³²³

Reflection on such issues underscores that legal thinkers today, as they have at other times in history, must be able to consider the logical extension of a particular position. In solving legal problems, legal thinkers must identify the ramifications of a particular position they take and consider whether that position will lead to absurd or immoral results. The expression “bad facts make bad law” is relevant here. Lawyers must recognize how judges are concerned with setting bad

320. HUHNS, *supra* note 2, at 11.

321. In fact, Aldisert affirms that the logical form is central to legal thinking. ALDISERT, *supra* note 117, at 67 (“Once the controlling rule or principle has been selected or modified . . . we *must* use canons of logic to reach a formally correct conclusion.”) (emphasis added) (citing JOHN DEWEY, *HOW WE THINK* 20 (1933)). Some critics, however, challenge that the maintenance of the syllogistic form is contrived. For instance, James Boland calls modern-day legal reasoning “principled illegitimacy” when such reasoning begins with “pre-ordained” certain conclusions, which are then artificially supported by their premises. Boland, *supra* note 271, at 291-92.

322. This contention does not mean that all sources, from natural law to sociology, are equally valid sources for jurisprudential insight. It merely means that considering such sources does not involve qualitatively different cognitive processes.

323. Identifying an exhaustive list of such concerns is problematic. As Robert Vischer observes, “Increasingly, the [legal] profession itself seems . . . properly viewed as a host of competing and contrasting subcommunities. . . .” Vischer, *supra* note 284, at 432. These communities undoubtedly have different “big” considerations they emphasize in arguing beyond black-letter law principles for changes in the law. See *id.* at 430-33 (describing the rise of the “religious lawyering movement” as challenging the notion that lawyers should not make arguments based on moral or religious grounds) (quoting Russell G. Pearce, *Foreword: The Religious Lawyering Movement: An Emerging Force in Legal Ethics and Professionalism*, 66 *FORDHAM L. REV.* 1075 (1998)).

precedent³²⁴ and thus must understand how an argument in the present context would apply in other, reasonably foreseeable contexts. Lawyers must also understand how their role as officers of the court affects their ability to advance certain arguments. In arriving at their major premises, they must comply with their ethical responsibilities.³²⁵ The law students in the Regent survey therefore had it right; legal analysis involves more than simply analysis of law.³²⁶ Thus, the problem solving framework in the Appendix recognizes that extralogical concerns inform the legal thinking process.

VII. CONCLUSION

The trend in recent years has been to expand the conception of what it means to “think like a lawyer” to include non-cognitive skills that pertain more to “lawyering” generally than to the cognitive processes involved in legal thinking.³²⁷ Although these non-cognitive, practical skills may be central to the task of lawyering, they should not be confused with the cognitive components that are fundamental to legal thinking and remain the philosophical backbone of legal education.³²⁸

In systematic fashion, this article has therefore sought to identify specific, albeit sometimes overlapping, cognitive components of legal

324. See, e.g., *In re Complaint of Kirby Inland Marine, L.P.*, 365 F.Supp.2d 777, 782 (M.D. La. 2005) (demonstrating a court’s concern that a particular holding would “set a bad precedent”).

325. See, e.g., MODEL RULES OF PROF’L CONDUCT R. 3.1 (2003) (“A lawyer shall not bring or defend a proceeding, or assert or controvert an issue therein, unless there is a basis in law and fact for doing so that is not frivolous, which includes a good faith argument for an extension, modification or reversal of existing law.”); MODEL RULES OF PROF’L CONDUCT R. 3.3(a)(2) (2003) (“A lawyer shall not knowingly fail to disclose to the tribunal legal authority in the controlling jurisdiction known to the lawyer to be directly adverse to the position of the client and not disclosed by opposing counsel”).

326. In this vein, Patrick McFadden contends that one of the four qualities of a good legal argument is “truth.” He argues that lawyers “always, ultimately, seek the truth in law or else the whole enterprise loses its value and moral foundation.” MCFADDEN, *supra* note 112, at 170. It should be noted, however, that the legal system does not ensure true or fair results. Cf. NATHAN M. CRYSTAL, PROFESSIONAL RESPONSIBILITY: PROBLEMS OF PRACTICE AND THE PROFESSION 393-94 (3d ed. 2004) (discussing how the ABA Model Rules of Professional Conduct do not require that lawyers be “fair” or disclose all facts in dealing with other participants to a negotiation).

327. See ButleRitchie, *supra* note 2, at 30-31.

328. Cf. *id.* at 29-31 (“The notion that a legal education is meant to convey to students an idea of how to ‘think like lawyers’ is central to the modern legal academy.”); *supra* note 2 and accompanying text.

thinking. As visualized by the Appendix, the article presents legal analysis in the overall framework of problem solving. Certain cognitive components, such as linear thinking, searching for coherence, crafting arguments, and attending to detail, permeate various stages of the framework. In the problem identification phase, cognitive skills such as assessing relevance rise in importance. In the movement towards problem solution, skills such as perceiving ambiguity, dissecting thought, and seeing others' perspectives become applicable. All these skills are informed by the overall logical structure of legal thinking generally. Finally, this framework is supplemented by extralogical considerations, such as morality, ethics, and public policy, which situate legal thinkers in the context of a professional community and a worldview structure.

Discussing this prototypical framework of legal thinking implies that individuals must follow this form of thinking to succeed as lawyers. Even if "success" could be defined in this context, the implication would not be true. Recent research demonstrates that nontraditional legal thinkers can do well on the LSAT and in law school;³²⁹ "success" based on those criteria is not predetermined from a particular cognitive structure.

Nevertheless, that same research confirms that legal thinkers tend to follow certain cognitive styles.³³⁰ The inference appears undeniable that there is some substantive import to the phrase "thinking like a lawyer." Although precise definitions of the phrase vary, the enormous overlap in lawyer surveys, law student surveys, LSAT and bar examination materials, and pertinent legal literature demonstrates that certain core attributes define legal thinking. Moreover, this overlap has persisted in the face of recent changes in legal education and law practice.³³¹

Armed with an understanding of these core attributes, legal educators can better train their students in the skill they deem so fundamental. More specifically, academic support professionals can provide their students with an overall framework that serves as the backdrop

329. See DeGroff & McKee, *supra* note 3, at 523-31, 546 (reflecting in their results that the correlation between law students' learning styles and LSAT scores and first-year GPAs was not perfect).

330. See *id.* (nevertheless finding positive correlations between students' learning styles and their LSAT scores and first-year GPAs).

331. Cf. MACCRATE REPORT, *supra* note 28, at 8 (noting that there is no "gap" between instruction in legal education and the needs of law practitioners).

for the specific study techniques they provide to students.³³² Academic support in law schools has generated renewed interest in the educational theory behind legal instruction.³³³ Scrutinizing legal education's core goal to produce good legal thinkers can only advance that interest.

332. *Cf.* STROPUS & TAYLOR, *supra* note 13, at 13 & 16 n.28 (devoting little discussion to defining "thinking like a lawyer" and focusing rather on specific study techniques important to law school success).

333. For instance, at the 2004 Annual Meeting of the Association of American Law Schools, the Academic Support Section sponsored a session on "Exploring the Scholarship of Teaching and Learning." The session, which was held on January 5, 2004, featured new developments in research relating to academic support instructional programs.

APPENDIX

COGNITIVE STEPS IN THINKING LIKE A LAWYER

