

January 2002

Use and Limits of Syllogistic Reasoning in Briefing Cases

Wilson R. Huhn

University of Akron School of Law, whuhn@uakron.edu

Please take a moment to share how this work helps you [through this survey](#). Your feedback will be important as we plan further development of our repository.

Follow this and additional works at: http://ideaexchange.uakron.edu/ua_law_publications



Part of the [Law Commons](#)

Recommended Citation

Wilson R. Huhn, *Use and Limits of Syllogistic Reasoning in Briefing Cases*, 42 Santa Clara Law Review 813 (2002).

This Article is brought to you for free and open access by The School of Law at IdeaExchange@UAkron, the institutional repository of The University of Akron in Akron, Ohio, USA. It has been accepted for inclusion in Akron Law Publications by an authorized administrator of IdeaExchange@UAkron. For more information, please contact mjon@uakron.edu, uapress@uakron.edu.

THE USE AND LIMITS OF DEDUCTIVE LOGIC IN LEGAL REASONING

by Wilson Huhn*

Reason is the life of the law; nay, the common law itself is nothing else but reason.

Sir Edward Coke, Commentary Upon Littleton, 1628

The life of the law is not logic; it is experience. The felt necessities of the time, the prevalent moral and political theories, intuitions of public policy, avowed or unconscious, have had a good deal more to do than the syllogism in determining the rules by which men should be governed."

Oliver Wendell Holmes, The Path of the Law, 1897

INTRODUCTION

The famous aphorisms quoted above encapsulate two diametrically opposed conceptions of law. Coke argued that law is reason. This was consistent with his statement in *Dr. Bonham's case* that "when an Act of Parliament is against common right or reason ... the common law will controul it and adjudge such Act to be void."¹ Coke's dictum was interpreted – or misinterpreted – as support for the concept of "natural law."²

Holmes, in contrast, was a positivist.³ He was devoted to the principle that legal

* McDowell Professor of Law and Research Fellow, Constitutional Law Center, University of Akron School of Law; B.A., Yale University, 1972; J.D. Cornell Law School, 1977.

¹ *Dr. Bonham's Case*, 8 Coke's Reports 114 (1610).

² One theory of "Natural Law" is "that there are certain principles of human conduct, awaiting discovery by human reason, with which man-made law must conform." HART, *THE CONCEPT OF LAW*, note __ *supra*, at 186. Two centuries ago this was a common legal paradigm. "English and American judges of the eighteenth century typically conceived of their work as including the application of natural law." Michael J. Glennon, *Raising the Paquete Havana: Is Violation of 'Customary International Law by the Executive Unconstitutional?*, 80 Nw. U. L. Rev. 321, 344 (1985) (citing *Bonham's Case*). See also Martin H. Redish and Lawrence C. Marshall, *Adjudicatory Independence and the Values of Procedural Due Process*, 95 Yale L. J. 455, 505 fn.27 (1986) (stating that there was "considerable support" in English law for Coke's conception of natural law). For example, Chief Justice Sir John Holt expressly cited Coke's decision in support of the concept of natural law. Philip A. Hamburger, *Revolution and Judicial Review: Chief Justice Holt's Decision in City of London v. Wood*, 94 Colum. L. Rev. 2091, 2134-2135 (1994).

³ Positivists reject the notion that law is deduced from "timeless legal principles," and instead conceive that "law is simply a command of the government enforced by sanction or apparent sanction." Jeremy M. Miller, *The Science of Law: The Maturing of*

and political truth cannot be ascertained *a priori*,⁴ but are instead determined by the people.⁵ He rejected natural law “as that naïve state of mind that accepts what has been familiar.”⁶ Coke embraced logic; Holmes rejected logic in favor of experience.

Jurisprudence into Fundamental Principles in Fairness, 13 Western State L. Rev. 367, 368 (1986) (tracing the history of Natural Law and Positivism from ancient and medieval times up to the Hart/Dworkin debate of the 1970’s and 1980’s). Other scholars identifying Holmes as a positivist include H.L. POHLMAN, JUSTICE OLIVER WENDELL HOLMES AND UTILITARIAN JURISPRUDENCE 163-164 (1984), and Patrick J. Kelley, *A Critical Analysis of Holmes’s Theory of Contract*, 75 Notre Dame L. Rev. 1681 (2000).

⁴ “Instead of a system based upon logical deduction from a priori principles, the Holmes concept was one of law fashioned to meet the needs of the community.” Bernard Schwartz, *Supreme Court Superstars: The Ten Greatest Justices* 31 Tulsa L.J. 93, 119 (1995).

⁵ Holmes wrote, “I used to say, when I was young, that truth was the majority vote of that nation that could lick all others,” and that “while one’s experience ... makes certain preferences dogmatic for oneself, recognition of how they came to be so leaves one able to see that others, poor souls, may be equally dogmatic about something else. And this again means skepticism.” HOLMES, COLLECTED WORKS, at 310 and 311. Holmes’ most famous judicial opinions, his dissents in *Lochner v. New York*, 198 U.S. 45, 74 (1905), and *Abrams v. United States*, 250 U.S. 616, 624 (1919), are grounded in the interlocking principles of skepticism, toleration, and majority rule. In *Lochner* he stated: “This case is decided upon an economic theory which a large part of the country does not entertain. If it were a question whether I agreed with that theory, I should desire to study it further and long before making up my mind. But I do not conceive that to be my duty, because I strongly believe that my agreement or disagreement has nothing to do with the right of a majority to embody their opinions in law.” 198 U.S., at 75. In *Abrams* he observed that “when men have realized that time has upset many fighting faiths, they may come to believe even more than they believe the very foundations of their own conduct that the ultimate good desired is better reached by free trade in ideas – that the best test of truth is the power of the thought to get itself accepted in the competition of the market” 250 U.S., at 630. Thus under Holmes’ brand of positivism we are obligated to defer to the truth as defined by the majority, so long as the majority permits new truths to emerge and to compete for majority acceptance.

⁶ HOLMES, COLLECTED WORKS, at 312. “If I ... live with others they tell me that I must do and abstain from doing various things or they will put the screws on to me. I believe that they will, and being of the same mind as to their conduct I not only accept the rules but come in time to accept them with sympathy and emotional affirmation and begin to talk about duties and rights.” *Id.* at 313.

The relation between law and logic has long fascinated legal scholars.⁷ For example, some scholars have attempted to reduce legal propositions to a few core concepts, and have sought to illustrate the logical relation among these concepts. The leading authority for this type of reductionism is Wesley Hohfeld,⁸ who proposed that legal relationships may be described in terms of four entitlements (rights, powers, privileges, or immunities) and their opposites (no-rights, duties, disabilities and liabilities).⁹

Other scholars have attempted to reduce rules of law to a system of logical notation. Layman Allen and those who have followed him have devised systems of modal or deontic logic intended to express any rule of law.¹⁰ The chief advantage of such systems is that they clarify the logical connectors within propositions of law, thus resolving ambiguities that may arise, for example, between conjunction and disjunction.¹¹

⁷ “One particularly thorny and recurring question ... concerns the role of ‘logic’ in judicial decisionmaking.” Douglas Lind, *Logic, Intuition, and the Positivist Legacy of H.L.A. Hart*, 52 SMU L. Rev. 135, 136 (1999). The relation between law and logic is a two-way street. Robert Schmidt has written a penetrating analysis of the effect of legal reasoning on the development of logic. Robert H. Schmidt, *The Influence of the Legal Paradigm on the Development of Logic*, 40 S. Tex. L. Rev. 367 (1999). Of course, not all arguments made by lawyers are logical or legal. For example, “I’m going to kick your ass,” “My client means for this to drag on for years,” “I’ve tried a bunch of these cases, my friend, and I’ve never lost one yet,” “George, my client, is one mean son of a bitch, and he means to have revenge here,” and “The trial judge was my brother’s law partner for years.” Michael Sean Quinn, *Argument and Authority in Common Law Advocacy and Adjudication: An Irreducible Pluralism of Principles*, 74 Chi.-Kent L. Rev. 655 (1999).

⁸ See Wesley Hohfeld, *Some Fundamental Legal Conceptions as Applied in Judicial Reasoning*, 23 Yale L.J. 16 (1913). Joseph Singer calls Hohfeld’s article “a landmark in the history of legal thought.” Joseph William Singer, *The Legal Rights Debate in Analytical Jurisprudence From Bentham to Hohfeld*, 1982 Wis. L. Rev. 975, 978 (1982).

⁹ Id. at 986; John S. Harbison, *Hohfeld and Herefords: The Concept of Property and the Law of the Range*, 22 N. Mex. L. Rev. 459 (1992).

¹⁰ See generally Layman E. Allen, *Symbolic Logic: A Razor-Edged Tool for Drafting and Interpreting Legal Documents*, 66 Yale L.J. 833 (1957); Greyfred B. Gray, *Reducing Unintended Ambiguity in Statutes: An Introduction to Normalization of Statutory Drafting*, 54 Tenn. L. Rev. 433 (1987); and Howard Pospesil, *Toward a Legal Deontic Logic*, 73 Notre Dame L. Rev. 603 (1998). M.B.W. Sinclair discussed a formal set model of common law in *Notes Toward a Formal Model of Common Law*, 62 Ind. L.J. 355 (1986-1987).

¹¹ “Much of the ambiguity in statutes, and in other statements of the law, results from the misuse of logical connectives or the failure to recognize that it is unclear how

In contrast to the foregoing approaches, the principal focus of this article is to illustrate the role that logic actually plays in conventional legal reasoning such as a legal opinion.¹² In doing so I draw upon, and build upon, the work of Judge Ruggero Aldisert¹³ and attorney Brian Winters.¹⁴ During the nineteenth century, law was equated with science and legal reasoning was thought to be a species of deductive logic. One purpose of this article is to explain why law is not a science and to generally describe how legal reasoning differs from deductive logic. Another purpose of this paper is to illustrate the differences between the logical structure of easy cases and hard cases, and the differences between the logical structure of different kinds of hard cases. The third purpose of this paper is to describe the use of logic in legal reasoning. Legal reasoning is presented in the form of an argument of deductive logic, or more specifically, as a chain of logical arguments, and the base premises of legal reasoning are identified. The fourth purpose of this article is to demonstrate the limits of deductive logic; how in hard cases legal reasoning proceeds not by way of deduction, but by evaluation and balancing. The four themes of this article are described in more detail in the summaries that follow.

Part I of this article compares law with science. Historically, law was considered a science and was thought to have the same underlying structure. Both law and science consist of sets of rules; both are concerned with predicting events; both legal reasoning and scientific reasoning use a framework of deductive logic to reason from general principles to particular results; and both legal principles and scientific principles evolve over time. However, over the last century legal scholars have rejected the identification of law with science. The principal difference between law and science is that while science is based upon and must be reconciled with objective observations of nature, law

portions of a complex proposition are to be combined. To offer a technically ambiguous, but in practice clear, example, the rule ‘stop when school bus is loading *and* unloading children’ admits of two readings. One of the readings, that one need stop only when some children are getting on and others are getting off, would seldom apply. The rule should be phrased as ‘stop when school bus is loading *or* unloading children’” Kevin W. Saunders, *What Logic Can and Cannot Tell Us About Law*, 73 Notre Dame L. Rev. 667, 678-679 (1998) (emphasis added).

¹² Like Douglas Lind, I concur with the “middle ground” of H.L.A. Hart, “emphasizing the importance of logic while acknowledging its limitations.” Lind, *supra* note __, at 137. A critic of formalism need not “deny *any* place to logic in legal reasoning,” nor is it necessary to characterize logic as ‘arid,’ ‘sterile,’ ‘futile,’ ‘barren,’ ‘tautologous,’ [and] ‘a dead hand’” C.G. Hall, *On the Logic of the ‘Internal Logic’ of the Law*, 15 Cambrian L. Rev. 31, 33 (1984).

¹³ RUGGERO J. ALDISERT, *LOGIC FOR LAWYERS: A GUIDE TO CLEAR LEGAL THINKING* (1997).

¹⁴ Brian Winters, *Logic and Legitimacy: The Uses of Constitutional Argument*, 48 Case Western L. Rev. 263 (1998).

arises from value judgments. Science is descriptive, while law is prescriptive.

Part II uses the structure of deductive logic to explain the difference between easy cases and hard cases. Easy cases are those that are governed by unambiguous legal rules of unchallenged validity; in such cases, the legal conclusion follows deductively from the applicable rule of law. However, as several scholars have noted, there are two kinds of hard cases: cases where the applicable rule of law is ambiguous, and cases where it is uncertain what the correct rule of law is. Ultimately, all hard cases, both questions of ambiguity and questions of validity, are resolved in the same manner, by resort to the fundamental categories of legal argument. This exposes a second fundamental difference between law and science; while science is grounded in a single source (observations of the physical universe), law springs from multiple sources (text, intent, precedent, tradition and policy), which give rise to legitimate but conflicting interpretations of the law

Part III describes the use of deductive logic in legal reasoning. Judge Ruggero Aldisert and attorney Brian Winters have demonstrated that legal arguments are not mere syllogisms -- they are chains of syllogisms ("polysyllogisms"), in which the conclusions of syllogisms earlier in the chain supply the premises of syllogisms that are later in the chain. Questions of ambiguity arise when the minor premise of a legal argument is challenged, while questions of validity represent a challenge to the major premise of a legal argument. At the base of each chain of syllogisms are premises about what the law is. The base major premises of each chain of legal reasoning consist of the five types of legal argument, which may be considered as categories of arguments that arise from different sources of law, as rules of recognition, or as sets of evidence that may be used to prove what the law is. The base minor premises of legal arguments are the specific items of evidence of what the law is. The polysyllogistic approach thus serves as a formal proof of the pluralistic nature of legal reasoning.

Part IV illustrates the limits of deductive logic by demonstrating how legal reasoning in hard cases proceeds not by deducing conclusions from factual premises, but rather by evaluating the weight of competing arguments. Ultimately, the persuasiveness of a legal argument depends upon its susceptibility to attack within each category of legal argument and upon the relative weight accorded to the different categories of legal arguments in the context of the particular case.

I. THE DIFFERENCE BETWEEN LAW AND SCIENCE

We can elucidate the structure of legal reasoning by comparing law with science.

A. The Historical Identification of Law with Natural Law and Science

Americans of the Revolutionary generation shared a profound faith in the concept

of Natural Law.¹⁵ They believed that a person in a pure and uncorrupted state possessed a natural sense of justice, an innate understanding of right and wrong.¹⁶ The archetype of the principled man of nature was Natty Bumppo, the hero of the *Leatherstocking Tales*¹⁷ by James Fenimore Cooper. In Cooper's immensely popular novels Bumppo confronted and resisted the march of American law and civilization.¹⁸

The leading legal scholars of the period reinforced this common belief with their contention that the laws of society are but a reflection (albeit imperfect) of the laws of nature.¹⁹ They argued that through the exercise of reason law is derived from fundamental precepts of justice, and they considered the law to be a scientific system of rules deduced from general moral principles. The statement of Theodore Dwight at Columbia is typical: "[N]o science known among men is more strictly deductive than the science of a true Jurisprudence."²⁰ Nathaniel Chipman of Vermont confidently asserted

¹⁵ For example, Alexander Hamilton said that "the sacred rights of mankind are not to be rummaged for among old parchments or musty records. They are written as with a sunbeam, in the whole volume of human nature, by the hand of Divinity itself and can never be erased or obscured by mortal power." Douglas W. Kmiec, *America's "Culture War" – The Sinister Denial of Virtue and the Decline of Natural Law*, 13 St. Louis U. Pub. L. Rev. 183, 188 (1993). The reliance of James Otis, Thomas Jefferson, and other Revolutionary leaders on this Lockean theory of natural rights is self-evident. Mark C. Niles, *Ninth Amendment Adjudication: An Alternative to Substantive Due Process Analysis of Personal Autonomy Rights*, 48 U.C.L.A. L. Rev. 85, 109 (2000).

¹⁶ See PERRY MILLER, *THE LIFE OF THE MIND IN AMERICA* 99-100 (1965).

¹⁷ The *Leatherstocking Tales*, in the order of the narrative, include *The Deerslayer* (1841), *The Last of the Mohicans* (1826), *The Pathfinder* (1840), *The Pioneers* (1823), and *The Prairie* (1827).

¹⁸ MILLER, note __ *supra*, at __.

¹⁹ William Blackstone asserted that the law of nature "is binding over all the globe in all countries, and at all times; no human laws are of any validity, if contrary to this." *Id.* at 164. See also Morton J. Horowitz, *The Rise of Legal Formalism*, 19 Am. J. Leg. Hist. 251, 255-6 (1975); John H. Langbein, *Chancellor Kent and the History of Legal Literature*, 93 Colum. L. Rev. 547, 568-569 (1993); and M. H. Hoeflich, *Law and Geometry: Legal Science From Leibnez to Langdell*, 30 Am. J. Leg. Hist. 95, 118 (1986). But see JEREMY BENTHAM, *THE LIMITS OF JURISPRUDENCE DEFINED* 84 (Charles W. Everett ed., 1945): "All this talk about nature, natural rights, natural justice and injustice proves two things and two things only, the heat of passions and the darkness of understanding." Bentham was one of the founders of Positivism. Miller, note 3 *supra*, at 374.

²⁰ MILLER, note __ *supra*, at 161.

that every law made under the Constitution "is ultimately derived from the laws of nature, and carries with it the force of moral obligation."²¹ In a similar vein, Judge Peter Thatcher of Boston described legal analysis as "a patient deduction of truth from actual experiment and mathematical demonstration."²² Professor Hoeflich credits Francis Bacon and Gottfried Leibniz with the identification of law with science and mathematics,²³ while Dean Pound traced this thought to the "scholastic jurists" of the fourteenth and fifteenth centuries.²⁴

The apogee of the identification of law with science occurred in 1870, when Christopher Columbus Langdell, the Dean of Harvard Law School, revolutionized legal education by introducing the "case method,"²⁵ bringing the rigor of the scientific method to legal study.²⁶ Prior to Langdell, American legal education was doctrinal in nature. Lawbooks digested rules of law rather than reporting cases, and professors lectured on what the law was rather than discussing with students what it might be.²⁷ Langdell

²¹ Id. at 165.

²² Id. at 159.

²³ Hoeflich, note __ *supra*, at 98-100.

²⁴ ROSCOE POUND, INTRODUCTION TO THE PHILOSOPHY OF LAW 13, 15-16 (1965). "The geometric ideal pervades the literature of the whole rationalist movement to create exact sciences of ethics, politics, and law that dominated European thought from Grotius to Kant, and that still remains strong in European legal scholarship today." Thomas C. Grey, *Langdell's Orthodoxy*, 45 U. Pitt. L. Rev. 1, 16 (1983).

²⁵ "Teaching his first class in Contracts, [Langdell] began, not with the customary introductory lecture, but by asking, "Mr. Fox, will you state the facts in the case of *Payne v. Cave*?" Id. at 1. "[H]e [Langdell] changed the method of law teaching from the study of general rules in textbooks or by lecture to the study of actual cases guided by the law professor's Socratic questioning." Thomas A. Woxland, *Why Can't Johnny Research? or It all Started with Christopher Columbus Langdell*, 81 Law Lib. J. 451, 455 (1989). "[P]rior to Langdell, and in the rest of the world, law was learned from the reading of treatises – *not* from the close and repetitive examination of countless appellate case opinions." Miller, note 3 *supra*, at 388.

²⁶ Dennis Patterson describes Langdell as "a strong proponent of the use of scientific method in law." Dennis Patterson, *Conscience and the Constitution*, 93 Colum. L. Rev. 270, 276 (1991) (book review). See also Marcia Speziale, *Langdell's Concept of Law as Science: The Beginning of Anti-Formalism in American Legal Theory*, 5 Vt. L. Rev. 1, 3 (1980).

²⁷ See Woxland, note __ *supra*. "The 'Treatise Tradition' that arose in the 1820's and 1830's is said to have sprung from the belief that law proceeds according to reason, not by will." Speziale, note __ *supra*, at 5. This tradition led to "the domination of

invented the casebook²⁸ and was the first to engage law students in socratic dialogue.²⁹ But although Langdell introduced these reforms, he clung to the accepted notion that law was a science.³⁰ In his casebook on Contracts, Langdell maintained that judicial decisions are the raw data of the science of law, and that careful dissection of cases would reveal the underlying rules of law:

"Law, considered as a science, consists of certain principles or doctrines. To have such a mastery of these as to be able to apply them with constant facility and certainty to the ever-tangled skein of human affairs, is what constitutes a true lawyer; and hence to acquire that mastery should be the business of every earnest student of law. Each of these doctrines has arrived at its present state by slow degrees; in other words, it is a growth, extending in many cases through centuries. This growth is to be traced in the main through a series of cases, and much the shortest and best, if not the only way of mastering the doctrine effectively is by studying the cases in which it is embodied."³¹

Langdell symbolized what Grant Gilmore called "the age of faith,"³² a period during which American jurists and legal scholars emphasized the "scientific" nature of law³³ and the "deductive" nature of legal reasoning.³⁴ This "formalist" or "conceptualist"

treatises and lectures in the classroom of legal education until 1870." *Id.* at 5-6.

²⁸ Woxland, note __ *supra*, at 457.

²⁹ *Id.* at 455. "He [Langdell] refused to lecture (thereby implicitly rejecting the notion that a professor could impart knowledge of the law via fixed, true maxims), instead inviting students to journey with him through the sea of cases." Speziale, note __ *supra*, at 3.

³⁰ "The heart of [Langdell's] theory was the view that law is a science." Grey, note __ *supra*, at 5. "His [Langdell's] belief was that law was a science" Miller, note 3 *supra*, at 375.

³¹ CHRISTOPHER LANGDELL, A SELECTION OF CASES ON THE LAW OF CONTRACTS vi (1871).

³² "Christopher Columbus Langdell ... has long been taken as a symbol of the new age. ... Langdell seems to have been an essentially stupid man, who, early in his life, hit upon one great idea which, thereafter, he clung with all the tenacity of genius. ... Langdell's idea was that law is a science." GRANT GILMORE, THE AGES OF AMERICAN LAW 42 (1977).

³³ MORTON J. HORWITZ, THE TRANSFORMATION OF AMERICAN LAW 1870-1950 9, 10, 13, 15 (1994).

form of analysis was categorical in nature;³⁵ judges avoided balancing,³⁶ and aspired to apply “neutral” principles of law.³⁷ The classical legal thought of this period served as a conservative firewall against progressive reforms;³⁸ not only was the law to be neutral,³⁹ but the state was to be neutral as well.⁴⁰ The ideal was “a state that could avoid taking sides in conflicts between religions, social classes, or interest groups.”⁴¹ Formalist doctrines such as economic substantive due process⁴² and the “direct-indirect test” under the Commerce Clause⁴³ divested state and national government of the power to regulate business or redistribute property.⁴⁴

B. The Similarities Between Law and Science

³⁴ “Deductions from general principles and analogies among cases and doctrines were often undertaken with a self-confidence that later generations, long since out of touch with the premises of the system, could only mistakenly regard as willful and duplicitous.” *Id.* at 16.

³⁵ “Nineteenth-century legal thought was overwhelmingly dominated by categorical thinking – by clear, distinct, bright-line classifications of legal phenomena.” *Id.* at 17.

³⁶ *Id.* at 17-18.

³⁷ “Classical orthodoxy did claim to discover politically neutral private law principles by rigorous scientific methods, and thus reinforced the view of the common law contract and property system as a ‘brooding omnipresence in the sky’ rather than as a contingent allocation of power and resources. Grey, note __ *supra*, at 16.

³⁸ “Progressive and later New Deal lawyers saw classical orthodoxy as a form of conservative ideology.” *Id.* However, Grey ultimately concludes that “[c]lassical legal thought ... took only a moderately conservative stance in the political struggles of its time.” *Id.* at 14.

³⁹ For example, “the sponsors of the American Law Institute and its Restatement project were ... promising that sound legal science could quell popular discontent by convincing people that judicial protection of the private law status quo was neutrally scientific rather than political.” *Id.* at 13.

⁴⁰ *Id.* at 19.

⁴¹ *Id.*

⁴² *Lochner v. New York*, 198 U.S. 45 (1905).

⁴³ *E.C. Knight Co. v. United States*, 156 U.S. 1 (1885).

⁴⁴ HORWITZ, *supra* note __, at 17-18.

Langdell's thesis that law is a science was plausible because law and science are alike in four fundamental ways. First, both law and science consist of sets of rules. Science consists of the principles followed by the natural world, while law consists of the rules that we are obliged to follow in society. Even our terminology contributes to the confusion; we commonly speak of "laws of nature" and "axioms of law."⁴⁵

Second, both law and science share a common purpose: they are both concerned with the prediction of events. Scientists seek to predict physical phenomena from the systematic examination of past events. Lawyers seek to predict how courts will interpret the law based upon how it has been interpreted in the past. Most lawyers would agree with Holmes' aphorism, "The prophecies of what the courts will do in fact, and nothing more pretentious, are what I mean by the law."⁴⁶

Third, legal reasoning and scientific reasoning share an essential formal resemblance. The brief of a case reduces a judicial decision to an argument of deductive logic stated in categorical form. The classic example of a syllogism is:

Question: Is Socrates mortal?
Minor Premise: Socrates is a man.
Major Premise: All men are mortal.
Conclusion: Socrates is mortal.⁴⁷

The parts of the brief of a case correspond precisely to the parts of a syllogism. The question is the issue; the minor premise is the facts; the major premise is the applicable law; and the holding of the court is the conclusion.⁴⁸ The legal syllogism was recognized by the eighteenth century reformer Cesare Beccaria,⁴⁹ who expressly advocated that, in the area of criminal law, judges should follow syllogistic reasoning:

⁴⁵ "Why do we say that reasoning follows laws? Why do we use the term 'judgment' in logic, which was originally and still is a legal term? Why do we mingle legal and logical concepts in this way?" Robert H. Schmidt, *supra* note __, at 367.

⁴⁶ Oliver Wendell Holmes, *The Path of the Law*, 10 Harv. L. Rev. 457, 461 (1897).

⁴⁷ Schmidt observes that this example, though ubiquitous, does not appear in Aristotle. Robert H. Schmidt, *supra* note __, at 400, fn. 32.

⁴⁸ See STEVEN J. BURTON, AN INTRODUCTION TO LAW AND LEGAL REASONING 41-50 (1985); and RICHARD A. POSNER, THE PROBLEMS OF JURISPRUDENCE 38-39 (1990).

⁴⁹ Beccaria fearlessly advocated public trials, equality before the law, proportionate criminal penalties, and abolition of the death penalty. See Luz Estelle Nagle, *Columbia's Faceless Justice: A Necessary Evil, Blind Impartiality or Modern Inquisition?*, 61 U. Pitt. L. Rev. 881, 890-891 (2000).

“In every criminal case, a judge should come to a perfect syllogism: the major premise should be the general law; the minor premise, the act which does or does not conform to the law; and the conclusion, acquittal or condemnation.”⁵⁰

An example of a legal syllogism may be taken from the law of parentage. Let us suppose that a married woman, Jenny, has undergone a hysterectomy and is therefore unable to bear a child, but that she retained her ovaries and can produce healthy ova. Let us further suppose that she wishes to have a child and that her sister, Sharon, is willing to carry the child to term for her. An embryo is created *in vitro* with gametes taken from Jenny and her husband, Jack, and the embryo is implanted into Sharon's uterus. Sharon gestates the child, and upon giving birth she gives the child to Jenny and Jack. These facts, a case of gestational surrogacy, are the minor premise of the legal syllogism.⁵¹

The people involved in this case may ask us a legal question: "Is Sharon or Jenny the legal mother of the child at the time of its birth?" If Sharon is considered to be the legal mother of the child at its birth, and Jack is considered its legal father, then in order to give effect to the wishes of the parties, Sharon will have to legally relinquish her parental rights to the child, and Jenny will have to apply to the probate court for permission to adopt the child to become its legal mother. If, on the other hand, Jenny is the legal mother of the child at the time of its birth, then no adoption will be necessary.

The relevant major premise is a rule of law stating generally the category of persons who are "legal mothers." We might, for example, find an existing rule of law stating that "The woman who gives birth to a child is its legal mother." If we apply this rule of law to the facts, we would conclude that Sharon, the gestational surrogate, is the child's mother in the eyes of the law, making an adoption necessary to effectuate the intent of the parties. This conclusion is the holding of the case.

This example illustrates the third fundamental similarity between law and science; law, like science, derives its conclusions from the application of general rules to particular facts in a manner consistent with the rules of formal logic.

There is a fourth sense in which law and science are alike. Our understanding of

⁵⁰ CESARE BECCARIA, ON CRIMES AND PUNISHMENTS 11 (David Young, trans. (1986) (originally published in 1764). Beccaria was thereby promoting a rule of lenity, the strict construction of criminal statutes; he also stated, “The code is to be observed in its literal sense, and nothing more is left to the judge than to determine if an action conforms to the written law.” *Id.* at ___.

⁵¹ These are the facts of *Belsito v. Clark*, 67 Ohio Misc. 2d 54 (1994). See note ___ *infra*.

law, like our understanding of the natural world, is constantly evolving. Each new case or physical observation potentially represents a turn of the kaleidoscope upending our assumptions and creating a new pattern. Although the laws of nature are seemingly immutable, our understanding of these laws is tentative and provisional, always subject to being disproven.⁵² The theories of Galileo and Newton on the motion of objects replaced those of Aristotle, and were replaced in turn by the theories of Einstein.⁵³ As with science, our understanding of the law is constantly changing, and it behooves the lawyer who hopes to be effective to exercise a healthy skepticism about what the law is.

C. The Reaction Against the Langdellian View

Grant Gilmore summarized Langdell's view of law as science in these words: "The basic idea of the Langdellian revolution seems to have been that there really is such a thing as the one true rule of law, universal and unchanging, always and everywhere the same --a sort of mystical absolute."⁵⁴ Gilmore added, "To all of us, I dare say, the idea seems absurd."⁵⁵

During the first half of the twentieth century the idealist vision of the law, which identified law with science and mathematics, was challenged and eventually overcome by the competing philosophy of legal realism. The legal realists rebelled against the formalism of the 19th century and insisted that the law be analyzed in light of its purposes and likely consequences, rather than as an exercise in deductive logic.

Leading the charge on Langdell's vision of law as science was Oliver Wendell Holmes. Holmes, reviewing Langdell's casebook in 1880, launched a spirited attack on the notion of law as science, characterizing Langdell as a "legal theologian."⁵⁶ Holmes

⁵² "There are no laws of nature which are given in such a fashion that they can be made dogmas. That is, you cannot say that any law is absolute and fixed." GEORGE H. MEAD, *MOVEMENTS OF THOUGHT IN THE NINETEENTH CENTURY* 285 (1936).

⁵³ Jeremy Miller compares the parallel development of "relativistic" viewpoints in physics and philosophy to recent changes in American jurisprudence. Miller, note 3 *supra*, at 396-398.

⁵⁴ GRANT GILMORE, *THE DEATH OF CONTRACT*, at 97-98 (1974) (footnote omitted).

⁵⁵ *Id.* at 98. Gilmore's objection to legal formalism as "universal and unchanging" is consistent with H.L.A. Hart's observation that the weakness of legal formalism was not its reliance upon logic, but its failure to acknowledge the "open texture" (ambiguity) of legal rules. See Lind, note 7 *supra*, at 152-157.

⁵⁶ Oliver Wendell Holmes, *Book Notices*, 14 *Am. Law.* 233, 234 (1880). In a similar spirit Grant Gilmore called Langdell a "conceptualist," GRANT GILMORE, *THE*

had previously disputed the proposition that rules of law could be derived by deduction; he explained:

"In form [the] growth [of the law] is logical. The official theory is that each new decision follows syllogistically from existing precedents. ... On the other hand, in substance the growth of the law is legislative. ... Every important principle which is developed by litigation is in fact and at bottom the result of more or less definitely understood views of public policy"⁵⁷

Over the course of his career Holmes repeatedly returned to this theme. In his 1897 address at Boston University, *The Path of the Law*, Holmes debunked the notion that a system of law "can be worked out like mathematics from some general axioms of conduct."⁵⁸ In 1905, in his *Lochner* dissent, Holmes wrote, "General propositions do not decide concrete cases,"⁵⁹ and in 1921 he noted, "A page of history is worth a volume of logic."⁶⁰

Holmes admonished legal educators to teach policy analysis.⁶¹ Roscoe Pound

AGES OF AMERICAN LAW 62 (1977), and Richard Posner calls Langdell's approach "Platonism." Richard Posner, *The Decline of Law as an Autonomous Discipline*, 100 Harv. L. Rev. 761, 762 (1987). In contrast, Marcia Speziale persuasively argues that Langdell was not a formalist, but rather that by reforming the teaching of law from the preaching of doctrine to the study of cases, he laid the groundwork for the realistic revolution in law. Speziale, note __ *supra*, at __. She suggests that Langdell's methods were empirical and inductive, not deductive, and that this signaled a movement away from the notion of law as an absolute canon of doctrine. *Id.* at __. Speziale's view of Langdell was shared by Roscoe Pound, who said, "Langdell was always worried about 'Why' and 'How?' He didn't care particularly whether you knew a rule or could state the rule or not, but how did the court do this? And why did it do it? That was his approach all the time." ROBERT STEVENS, *LAW SCHOOL: LEGAL EDUCATION IN AMERICA FROM THE 1850s TO THE 1950s* 55 (1983).

⁵⁷ Oliver Wendell Holmes, *Common Carriers and the Common Law*, 13 Am. L. Rev. 609, 631 (1879).

⁵⁸ Oliver Wendell Holmes, *The Path of the Law*, 110 Harv. L. Rev. 991, 998 (1997), reprinted from 10 Harv. L. Rev. 457 (1897).

⁵⁹ *Lochner v. New York*, 198 U.S. 45, 75 (1905) (Holmes, J. dissenting).

⁶⁰ *New York Trust Company v. Eisner*, 256 U.S. 345, 349 (1921).

⁶¹ "I cannot but believe that if the training of lawyers led them habitually to consider more definitely and explicitly the social advantage on which the rule they lay down must be justified, they sometimes would hesitate where now they are confident, and see that

used the term “sociological jurisprudence” to describe this method of analysis, and in insisted that in interpreting the law judges should “take more account, and more intelligent account, of the social facts upon which law must proceed and to which it is to be applied.”⁶²

Louis Brandeis, Holmes' colleague on the Supreme Court and another founder of the school of legal realism, agreed with Pound that judges should focus on the facts of the case, rather than on general principles:

In the past the courts have reached their conclusions largely deductively from preconceived notions and precedents. The method I have tried to employ in arguing cases before them has been inductive, reasoning from the facts.⁶³

The legal realists were skeptical, not nihilistic. They did not equate law with power, nor did they consider legal reasoning to be a mask to cover the unprincipled exercise of power.⁶⁴ Instead, they constructed an alternative method to interpret the law through balancing⁶⁵ and policy analysis.⁶⁶ Justice Benjamin Nathan Cardozo, another

really they were taking sides upon debatable and often burning questions.” Holmes, *Path*, at 468.

⁶² ROSCOE POUND, *The Scope and Purpose of Sociological Jurisprudence*, Part 3, 25 *Harv. L. Rev.* 489 (1912).

⁶³ GOLDMAN, *THE WORDS OF JUSTICE BRANDEIS* 72 (1953), quoted in BERNARD SCHWARTZ, *MAIN CURRENTS IN AMERICAN LEGAL THOUGHT* 413 (1993).

⁶⁴ Critical Legal Studies, “the more ambitious descendent of legal realism,” contends that “[a]ll legal texts, theories, arguments, and positions are radically contextual in nature, and legal reasons are merely ad hoc or post hoc rationalizations for prior ‘situated’ beliefs.” C.J. Summers, *Distorting Reason*, 11 *Yale J.L. & Human.* 529 (1999) (critiquing PIERRE SCHLAG, *THE ENCHANTMENT OF REASON* (1998)). Schlag, a proponent of critical legal studies, suggests that reason in legal analysis is an illusion. *Id.* Summers concludes that the issues raised by critical legal theorists “are serious and worthy of study,” but that “Critical theorists have done them a disservice by substituting trendy jargon, impressionistic arguments, and attacks on the status quo for careful argumentation, attention to detail, charitable consideration of competing positions, and intellectual humility.” *Id.* at 539.

⁶⁵ Horwitz notes that legal realism is characterized by balancing. HORWITZ, *supra* note __, at __.

⁶⁶ Judge Richard Posner equates legal realism with policy analysis. Richard Posner, *Jurisprudential Responses to Legal Realism*, 73 *Cornell L. Rev.* 326 (1988).

leading realist, did not reject deductive logic and traditional methods of legal reasoning, but he did find them to be incomplete:

The final cause of law is the welfare of society. The rule that misses its aim cannot permanently justify its existence. ... Logic and history and custom have their place. We will shape the law to conform to them when we may; but only within bounds. The end which the law serves will dominate them all.⁶⁷

Legal realism replaced formalism and became the dominant force in American law because it is a more honest and more satisfying approach to solving hard legal problems. As H.L.A. Hart explained, legal realism stands for the principle “that judges should not seek to bootleg silently into the law their own conceptions of the law’s aims or justice or social policy or other extra-legal elements required for decision, but should openly identify and discuss them.”⁶⁸

The most cogent explanation for the realists’ rejection of law as science was offered by John Dickinson of Princeton in 1929:

"[J]ural laws are not, like scientific `laws,' descriptive statements of verifiable relations between persons or things -- relations which exist and will continue to exist irrespective of whether human choice and agency enter into the situation. ... They are consequently the result of value-judgments, rather than of judgments of fact -- judgments, i.e., that one arrangement of relations is better, as for some reason more just or more convenient, than another arrangement which is admitted to be physically possible."⁶⁹

Philip Bobbitt has persuasively made this same point. Bobbitt contends that many people make the "fundamental epistemological mistake" of assuming "that law-statements are statements about the world (like the statements of science) and thus must be verified by a correspondence with facts about the world."⁷⁰ Dennis Patterson agrees with Bobbitt, and extends this viewpoint to all law:

⁶⁷ CARDOZO, *JUDICIAL PROCESS*, *supra* note 27, at 66.

⁶⁸ H.L.A. HART, *ESSAYS IN JURISPRUDENCE AND PHILOSOPHY*, 130-132 (1983). (Lind, note 227.)

⁶⁹ John Dickinson, *The Law Behind Law II*, 29 Colum. L. Rev. 285, 289-290 (1929).

⁷⁰ PHILIP BOBBITT, *CONSTITUTIONAL INTERPRETATION* xii (1991). Bobbitt suggests that law is not a science, but “something we do.” *Id.* at 24. ALSO CHECK HIS COMMENTS AT PAGE 34 AND 182.

“This confusion of legal and scientific modalities lies at the heart of contemporary constitutional jurisprudence. ... [T]he same argument can be made about contemporary jurisprudence generally.”⁷¹

If law is not a science, then what is it? The practice of law is not the discovery of truth; it is the art of persuasion. Donald Hermann has observed:

"[L]egal reasoning entails a practice of argumentation. The reasons given for the conclusions reached are to be measured by their persuasiveness, not by reference to some established true state of affairs."⁷²

Law differs from science in that science describes the physical world, while law reflects our values. Science is descriptive, while law is prescriptive.⁷³ Scientific reasoning is intended to convey statements of fact, while legal reasoning seeks to persuade that one complex of values is more compelling than another.

The view of Holmes, Brandeis, Cardozo, Pound, Gilmore, Dickinson, and the other legal realists eventually prevailed in American jurisprudence. It is now accepted that although law is logical in form, deductive logic is incapable of solving hard legal problems.⁷⁴ In fact, as the following portion of this article illustrates, the very definition

⁷¹ Patterson, note __ *supra*, at 276.

⁷² Donald H.J. Hermann, *Legal Reasoning as Argumentation*, 12 N. Ky. L. Rev. 467, 507 (1985). See also Linda Levine and Kurt Saunders, *Thinking Like a Rhetor*, 43 J. Legal Educ. 108 (1993) (suggesting that legal education should incorporate training in classical rhetorical techniques); and Dennis Patterson, *Truth in Law*, note __ *supra*, at 143.

⁷³ H.L.A. Hart attributes this insight to John Stuart Mill: “This, Mill thought, revealed the perennial confusion between laws which formulate the course or regularities of nature, and laws which require men to behave in certain ways. The former, which can be discovered by observation and reasoning, may be called ‘descriptive,’ and it for the scientist thus to discover them; the latter cannot be so established, for they are not statements or descriptions of facts, but are ‘prescriptions’ or demands that men shall act in certain ways.” H.L.A. HART, *THE CONCEPT OF LAW* 186-187 (1998). The importance of this distinction is underscored by the fact that “prescriptive laws may be broken and yet remain laws,” while “it is meaningless to say of the laws of nature, discovered by science, either that they can or cannot be broken.” *Id.* at 187.

⁷⁴ “Lawyers think axiomatically, yet the law cannot be put into the form of a deductive system.” J.C. Smith, *Machine Intelligence and Legal Reasoning*, 73 Chi.-Kent L. Rev. 277, 313 (1998). Smith concludes that we cannot design computers that can solve hard cases: “The idea of intelligent and thinking machines that can perform the

of a hard case is that it is one that cannot be resolved deductively. Furthermore, in the resolution of hard cases another fundamental difference between law and science becomes evident.

II. THE DIFFERENCE BETWEEN EASY CASES AND HARD CASES

A. Problems of Ambiguity and Problems of Validity

To elucidate the difference between hard cases and easy cases, and the concomitant limitations of deductive logic in legal analysis, it is appropriate to again make use the legal syllogism, but the examples that follow utilize the hypothetical rather than the categorical form of logical proposition.⁷⁵

All rules of law may be stated in the following hypothetical form: *If* certain facts are true, *then* a certain legal conclusion follows. For example, *if* a person purposefully and without justification or excuse causes the death of another, *then* the person is guilty of homicide.⁷⁶ An intruder who deliberately shoots and kills a sleeping homeowner in the course of a burglary is clearly guilty of murder; this is an easy case. But what of the case of a woman who has suffered years of serious physical abuse at the hands of her husband, a man who has repeatedly threatened her life;⁷⁷ is this woman guilty of homicide if she shoots and kills him as he lay sleeping?⁷⁸ Was her act justified? This is

range of tasks of which the human is capable is, in itself, a form of Oedipal blindness, and a reflection of our own denial of our animality.” *Id.*, at 346.

⁷⁵ Sinclair uses the categorical form to describe rules of law: “[T]he variable ‘c’ ranges over cases, or, more precisely, the facts of cases as determined by courts; ‘c subi’ thus picks out some particular set of facts of a case. The notation ‘L’ is used for the set of legal predicates, ‘L subi’ for a particular one of them. Schematically then the intrinsically legal question facing the judge is of the form ‘Is c subi an L subj?’ where c subi is the set of facts comprising the case to be decided and L subj is the legal predicate.” M.B.W. Sinclair, note 10 *supra*, at 357.

⁷⁶ The perpetrator's mental state may aggravate or mitigate the crime. If the murder was committed "with prior calculation and design," the crime is aggravated murder, while if it was knowingly committed "while under the influence of sudden passion or in a sudden fit of rage" the crime is mitigated to voluntary manslaughter. See, *e.g.*, Ohio Rev. Code sec. 2903.01, 2903.02, and 2903.03 (Anderson 1997).

⁷⁷ See generally Chapter 7, *Battered Woman Syndrome*, in JANE MORIARTY, *PSYCHOLOGICAL & SCIENTIFIC EVIDENCE* (2000).

⁷⁸ Compare *State v. Norman*, 378 S.E.2d 8 (N.C. 1989) (defendant who was convicted of voluntary manslaughter held not entitled to instruction on self-defense) with *State v. Allery*, 682 P.2d 312 (Wash. 1984) (defendant convicted of second degree murder held entitled to self-defense instruction). Jane Moriarty discusses these “non-

a hard case because the law of self-defense generally requires that the defendant reasonably believed that her actions were necessary to defend herself against the aggressor's *imminent* use of unlawful force.⁷⁹ In one case, the North Carolina Court of Appeals ruled that the defendant-wife was in imminent danger because the decedent-husband's nap was "but a momentary hiatus in a continuous reign of terror,"⁸⁰ while the state Supreme Court overruled and held that the wife was not in "imminent" danger.⁸¹

But is the imminence of the danger to be determined by what the *reasonable person* would believe, or by reference to the reasonable belief of a person in the defendant's mental state? The meaning of the term "imminent" is ambiguous as applied to the facts of this case, because the imminence of the danger may be measured by an objective or a subjective standard.⁸² Furthermore, it may be difficult to tell the difference between the objective and the subjective standards:

The distinction between the objective and subjective tests can be elusive. A court nominally applying the objective test may allow the jury to consider so many of the defendant's unique circumstances that the hypothetical "reasonable person" assumes most of the fears and weaknesses of the defendant. The jury may thus come close to evaluating the necessity of self-defensive action as the defendant saw it.⁸³

Some will argue that the defendant is guilty⁸⁴ and some will argue that she is not,⁸⁵ because the meaning of the word "imminent" in the rule defining self-defense is

confrontational" or "sleeping man" homicide cases in MORIARTY, note __ *supra*, page 7-20 to 7-25.

⁷⁹ "Primarily, the issue of when the threat becomes imminent or immediate is the focal point for most of the courts – that is, if the defendant was not in 'imminent' danger of serious bodily harm, self-defense is not an issue in the case" MORIARTY, note __ *supra*, at 7-21.

⁸⁰ *State v. Norman*, 366 S.E.2d 586, 592 (N.C. App. 1988)

⁸¹ *State v. Norman*, 378 S.E.2d 8 (N.C. 1989).

⁸² See David L. Faigman and Amy J. Wright, *The Battered Woman Syndrome in the Age of Science*, 39 Ariz. L. Rev. 67, 85-88 (1997) (describing the objective and subjective standards for measuring imminence).

⁸³ *Id.* at 85-86.

⁸⁴ See ALAN M. DERSHOWITZ, THE ABUSE EXCUSE AND OTHER COP-OUTS, SOB STORIES AND EVASIONS OF RESPONSIBILITY 45-47 (1994).

⁸⁵ See Arthur Ripstein, *Self-Defense and Equal Protection*, 57 U. Pitt. L. Rev. 685

unclear in the context of a “sleeping husband / battered wife” murder case. This is a problem of ambiguity, and it is a hard case because arguments spring to mind for two different interpretations of the rule.⁸⁶

To illustrate another type of hard case we return to our earlier example of gestational surrogacy. The relevant rule of law may be stated in hypothetical form as follows: *If a woman gives birth to a child, then she is its lawful mother.* This rule is not ambiguous in the context of gestational surrogacy; all the words of the fact portion of the rule have but one meaning as applied to this case. But we know intuitively that this is not an easy case, even though the rule of law is unambiguous. The difficulty arises because in this context the rule *itself* seems to be an incorrect or unfair statement of the law.⁸⁷ This type of case is hard because the validity of the rule is in question, even though its meaning is clear.⁸⁸

(1996).

⁸⁶ Hart observed that rules of law, “however smoothly they work over the great mass of ordinary cases, will, at some point where their application is in question, prove indeterminate; they will have what has been termed an *open texture*.” HART, THE CONCEPT OF LAW, note __ *supra*, at 128. Hart traces the ambiguity of legal rules to two human shortcomings: “our relative ignorance of fact” and “our relative indeterminacy of aim.” *Id.* When the law presents “a fresh choice between open alternatives,” “the necessity for such choice is thrust upon us because we are men, not gods.” *Id.*

⁸⁷ The three courts that have considered the issue decided not to apply the common law rule recognizing the birthmother as the legal mother; each recognized the intended mother as the lawful mother of the child. *Johnson v. Calvert*, 5 Cal. 4th 84 (1993); *Belsito v. Clark*, 67 Ohio Misc. 2d 54 (1994), and *Buzzanca v. Buzzanca*, 72 Cal. Rptr. 2d 280 (1998).

⁸⁸ Ronald Dworkin noted that questions of validity create “hard cases,” just as questions of ambiguity do: “Judges often disagree not simply about how some rule or principle should be interpreted, but whether the rule or principle one judge cites should be acknowledged to be a rule or principle at all.” Ronald Dworkin, *Hard Cases*, 88 Harv. L. Rev. 1057, 1089 (1975). Dworkin characterizes Hart as arguing that “hard cases arise only because legal rules have what he calls ‘open texture.’” *Id.* However, Hart had identified the same two difficulties in determining what the law is. “The distinction between the uncertainty of a particular rule, and the uncertainty of the criterion used in identifying it as a rule of the system, is not itself, in all cases, a clear one. But it is clearest where rules are statutory enactments with an authoritative text. The words of a statute and what it requires in a particular case may be perfectly plain; yet there may be doubts as to whether the legislature has power to legislate in this way.” HART, THE CONCEPT OF LAW, note __ *supra*, at 148.

B. Law and Science Differ In That Law Has Multiple Sources

The foregoing examples illustrate that a case may be difficult because the applicable rule of law is ambiguous, or because the validity of the rule has been challenged.⁸⁹ Hard cases involve either a question of ambiguity or a question of validity. But how is a court to resolve a case where the meaning or the validity of the existing rule is challenged?⁹⁰ It is here, in the resolution of hard cases, that the essential difference between law and science becomes apparent. To resolve questions of ambiguity or validity lawyers and judges create legal arguments.

There are five types of legal argument. Legal arguments may be based upon *text*, *intent*, *precedent*, *tradition*, or *policy analysis*.⁹¹

The five types of legal argument represent different conceptions of what law is. Law may be considered to be legal text itself,⁹² or it may be considered to be what the text meant to the persons who enacted it into law.⁹³ Law may be considered to be the

⁸⁹ David Lyons adds a third category of hard case: cases that are governed by conflicting rules. David Lyons, *Justification and Judicial Responsibility*, 72 Calif. L. Rev. 178 (1984). I would classify a case with conflicting rules as one where the validity of the applicable rule is in question.

⁹⁰ How indeed? James Gordley notes that “it would be a mistake to think that if one stares hard at [an ambiguous term] ... one will achieve greater clarity.” James Gordley, *Legal Reasoning: An Introduction*, 72 Calif. L. Rev. 138 (1984). Not that we haven’t tried!

⁹¹ This system of classifying legal arguments is described in Wilson Huhn, *Teaching Legal Analysis Using a Pluralistic Model of Law*, __ Gonzaga L. Rev. __ (2000). It is principally based upon Philip Bobbitt’s theories of “modalities” in constitutional interpretation and the work of William Eskridge, Jr., and Philip Frickey in describing the modes of statutory interpretation. PHILIP BOBBITT, *CONSTITUTIONAL INTERPRETATION* (1991); William N. Eskridge, Jr. and Philip P. Frickey, *Statutory Interpretation as Practical Reasoning*, 42 Stanford L. Rev. 321 (1990). It also draws upon theories of interpretation proposed by Akhil Amar, Richard Fallon, Dennis Patterson, and Kent Greenawalt. Akhil Amar, *Intratextualism*, 112 Harv. L. Rev. 747 (1999); Richard H. Fallon, Jr., *A Constructivist Coherence Theory of Constitutional Interpretation*, 100 Harv. L. Rev. 1189 (1987); Dennis Patterson, *Truth in Law: A Modal Account*, in *LAW AND TRUTH* 128, (Dennis Patterson, ed. 1996); and KENT GREENAWALT, *STATUTORY INTERPRETATION: 20 QUESTIONS* (1999).

⁹² Huhn, note __ *supra*, at ____.

⁹³ *Id.* at ____.

holdings or opinions of courts saying what the law is,⁹⁴ and may also be thought of as the traditional ways in which members of the community have conducted themselves.⁹⁵ Finally, law may be conceived as the expression of the underlying values and interests that the law is meant to serve.⁹⁶ In this sense, the five types of legal argument each arise from a different source of law.

The five types of legal argument comprise a list of the arguments that lawyers may legitimately invoke to say what the law is. This is a descriptive model of how lawyers behave.⁹⁷ This taxonomy of legal argument performs a legitimating function; it delineates the parameters of valid legal argument.⁹⁸ As such the kinds of argument function as rules of recognition.⁹⁹

The five types of legal argument also represent the rules of evidence that govern determinations of questions of law. Each category of legal argument is an information set, a collection of evidence that tends to prove what the law is.¹⁰⁰

Finally, each type of legal argument represents a different ordering in the values that are served by a system of laws.¹⁰¹ Textual interpretation promotes objectivity. Intent reflects the popular will. Precedent promotes stability. Tradition promotes societal coherence. And policy arguments – consequentialist arguments – enable to law to achieve its purposes. It is common for these values to conflict in particular cases.¹⁰² That there are multiple legitimate types of legal argument is a principal reason that hard cases

⁹⁴ Id. at __.

⁹⁵ Id. at __.

⁹⁶ Id. at __.

⁹⁷ See Philip Bobbitt, *Reflections Inspired by My Critics*, 72 Tex. L. Rev. 1869, 1913-1914 (1994).

⁹⁸ Id. at 1916.

⁹⁹ Hart defined a “rule of recognition” as a “secondary” rule “used for the identification of the primary rules of obligation.” Hart, *THE CONCEPT OF LAW*, note __ *supra*, at 100. “To say that a given rule is valid is to recognize it as passing all the tests provided by the rule of recognition and so as a rule of the system.” Id. at 103.

¹⁰⁰ Huhn, note __ *supra*, at __.

¹⁰¹ Id. at __.

¹⁰² “The values that society labors to preserve are contradictory.” PHILIP BOBBITT, *CONSTITUTIONAL INTERPRETATION*, note __ *supra*, at 181.

exist; it is why informed people may in good faith legitimately differ as to what the law is.

The forms of legal argument may thus be characterized as arising from different sources of law, as rules of recognition, as collections of evidence of what the law is, or as the separate embodiment of the various values served by a system of laws. And although each kind of argument springs from a different source of law; although each kind of argument requires the court to consider different evidence in determining what the law is; although each kind of argument serves different values; and although each kind of argument, in hard cases, may yield a different answer to legal questions, all five methods of legal analysis share one fundamental point in common. Regardless of how a rule of law was created, it is always the case that it arose because someone, at some point in time, made a value choice. The fundamental nature of law is that it is intentional. A person, or group of persons, chose to elevate one interest over another, and this choice is recognized as our law by a court that selects a method of analysis that accepts that value choice as binding.

This is not how our understanding of the laws of nature evolves. Scientists do not reformulate natural laws by making intentional value choices.¹⁰³ Instead, our understanding of the laws of nature changes when our current theories are inadequate to explain observed phenomena.

The formalistic view of the law as a determinate set of rules is fundamentally inconsistent with how law is made and interpreted. Law is not a science. The assumptions of law and science are at odds with each other. Even though law, like science, consists of a set of rules; even though the purpose of legal study, like science, is to make predictive statements; even though both legal and scientific reasoning use formal deductive logic to derive conclusions by applying general rules to specific facts; and even though the law, like science, is constantly evolving, there are basic differences between law and science.

Unlike science, the law has multiple sources. In hard cases, the law is fundamentally indeterminate. And unlike science, the law is volitional, not phenomenological. The root premises of law are value judgments. Though law is logical and rational in form, in substance it is evaluative, the result of intentional value choices.

The case of the battered spouse who was charged with murder is a hard case because it presents a problem of ambiguity: was she in “imminent danger?” The

¹⁰³ Lysenko did -- and this was not science, but ideology. See ALEXANDER KOHN, *FALSE PROPHETS* 63 (1986). Creationists also do this -- and it is not science, but religion. See *Epperson v. Arkansas*, 393 U.S. 97, 106-7 (1968) (teaching creationism in the public schools is an establishment of religion). No vote of scientists will slow the speed of light. BOBBITT, *supra* note ____, at 182.

gestational surrogacy case is a hard case because the validity of the rule that "the woman who gives birth to the child is its lawful mother" seems questionable in that context.

Part III of this article describes the logical structure of the reasoning in hard cases. In Part IV, I describe a model for the non-logical resolution of hard cases.

PART III. THE USE OF DEDUCTIVE LOGIC IN LEGAL REASONING

Ruggero J. Aldisert, Judge for the United States Court of Appeals for the Third Circuit, and Brian Winters, a Minneapolis attorney, have both made significant contributions to explaining the appropriate use of logic in legal reasoning.¹⁰⁴ Aldisert's book, *Logic for Lawyers: A Guide to Clear Legal Thinking*,¹⁰⁵ details the logical structure of a number of judicial opinions. Aldisert's "polysyllogistic" model of legal analysis is the subject of Part A below. Winter's article, *Logic and Legitimacy: The Uses of Constitutional Argument*,¹⁰⁶ includes several acute observations about the logical structure and premises of legal argument, which are analyzed in Parts B and C.

A. The Brief of a Case is Not a Single Syllogism, But Rather a Chain of Syllogisms.

As noted above,¹⁰⁷ the brief of a case is in the form of a syllogism, an argument of deductive logic. But to characterize a brief as a *single* argument of deductive logic, a single syllogism, is misleading. In law school law professors typically ask students to identify "the issue" or "the holding" of a case, implying that for every case there is only one issue and one holding. But on closer inspection it becomes apparent that this is not at all true; the reasoning of the court in any particular case is not a single argument of logic as the form of a brief would suggest, but many arguments or syllogisms.¹⁰⁸ The brief of a

¹⁰⁴ Aldisert and Winters both promote the role of logical analysis in legal reasoning. "Logical reasoning lies at the heart of the common law method." ALDISERT, note __ *supra*, at 9. "I propose ... that we consciously conceptualize constitutional 'interpretation' as a logical enterprise – contra Posner, and much contemporary scholarship – and mount our assessments of Supreme Court opinions in explicitly logical terms. I believe that such an approach would do much to advance the cause of intelligibility – and of legitimacy." Winters, *supra* note __, at 307. See also Patricia Sayre, "Socrates Is Morta": *Formal Logic and the Pre-Law Undergraduate*, 73 Notre Dame L. Rev. 689, 689-690 (1998) (advising that pre-law students should study formal logic as well as the history and philosophy of logic).

¹⁰⁵ ALDISERT, note __ *supra*.

¹⁰⁶ Winters, note __ *supra*.

¹⁰⁷ See text accompanying note __ *supra*.

¹⁰⁸ In light of the fact that a judicial opinion may encompass dozens of issues and holdings, which is *the* issue or *the* holding of the case? As a practical matter, when a

case is in fact a chain of logical arguments,¹⁰⁹ proceeding from the root premises of the court to its final decision. Judge Aldisert refers to this chain as a “polysyllogism,” and in his book he depicts the legal reasoning of several judicial opinions in this manner.¹¹⁰ The polysyllogistic approach may be used to unravel the chain of syllogisms, and thereby trace the court’s reasoning from its underlying assumptions about the law to its ruling in the case before it.

An ideal case to illustrate this point is *Marbury v. Madison*.¹¹¹ There are two reasons to turn to *Marbury* as a prime example the use of deductive logic. First, *Marbury* is the foundational case in Constitutional Law. In *Marbury* the United States Supreme Court, speaking through Chief Justice John Marshall, articulated the principle of judicial review; *i.e.* the authority of the courts to interpret the constitution and to declare statutes unconstitutional. Because this case establishes the legitimacy of the power of the courts to “say what the law is,”¹¹² it is appropriate to examine the opinion of the court in determining what constitutes legitimate legal analysis.

The second reason that *Marbury* is an ideal case to analyze logically is because of Marshall’s spare, logical style. The legal historian Bernard Schwartz has celebrated Justice Marshall’s “rigorous pursuit of logical consequences” and “the magisterial character of his opinions marching with measured cadence to their inevitable logical conclusion”¹¹³ Marshall achieves this effect by phrasing the issues of a case in terms of black and white, rather than shades of gray. Every hard choice is presented as an “either / or” proposition, not as a matter of degree. For example, in *Marbury* Marshall

professor asks a student to identify “the issue” in a case, the professor is asking the student to identify the issue in the case that best serves the professor’s pedagogical purpose. The professor probably assigned the case because one of the issues in the case concerns the next topic to be covered in the syllabus of the course. The professor or casebook editor may have selected a particular case because it was the first time that the issue to be studied was decided by a court, or because the opinion of the court is particularly thorough or well-written, or because the court’s discussion of the issue presents an informative contrast to a complementary discussion in another case.

¹⁰⁹ “A legal argument, therefore, is almost always a chain of syllogisms” Winters, note __ *supra*, at 285.

¹¹⁰ ALDISERT, note __ *supra*, at __.

¹¹¹ 5 U.S. 137 (1803). Judge Aldisert also crafted a polysyllogism of the reasoning in *Marbury*. ALDISERT, note __ *supra*, at __.

¹¹² “It is emphatically the province and duty of the judicial department to say what the law is.” *Marbury*, 5 U.S., at 177.

¹¹³ BERNARD SCHWARTZ, A HISTORY OF THE SUPREME COURT 36-37 (1993).

argues that

The constitution is either a superior paramount law, unchangeable by ordinary means, or it is on a level with ordinary legislative acts, and, like other acts, is alterable when the legislature shall please to alter it.¹¹⁴

He also states,

It is a proposition too plain to be contested, that the constitution controls any legislative act repugnant to it; or, that the legislature may alter the constitution by an ordinary act. Between these alternatives there is no middle ground. The constitution is either a superior paramount law, unchangeable by ordinary means, or it is on a level with ordinary legislative acts, and, like other acts, is alterable when the legislature shall please to alter it. If the former part of the alternative be true, then a legislative act contrary to the constitution is not law: if the latter part be true, then written constitutions are absurd attempts, on the part of the people, to limit a power in its own nature illimitable.¹¹⁵

Marshall presents the question of the duty of the courts to review legislation in similar dichotomous fashion:

So if a law be in opposition to the constitution; if both the law and the constitution apply to a particular case, so that the court must either decide that case conformably to the law, disregarding the constitution; or conformably to the constitution, disregarding the law; the court must determine which of these conflicting rules governs the case.¹¹⁶

By framing the issues as alternatives “with no middle ground,” Marshall makes it possible to arrive at a single right answer by means of deductive reasoning. Although Marshall makes policy arguments, he does not balance one principle or outcome against another. Marshall’s consequentialist analysis buttresses the conclusions he reaches syllogistically.¹¹⁷

As noted above, one of Langdell’s greatest contributions to legal education was

¹¹⁴ *Marbury*, 5 U.S., at 176.

¹¹⁵ *Id.* at 177.

¹¹⁶ *Id.* at 178.

¹¹⁷ See *infra* note ___ and accompanying text.

the practice of “briefing cases,”¹¹⁸ that is, asking students to describe the reasoning of the court in terms of a logical syllogism.¹¹⁹ The first step in briefing a case is to state the facts, and the facts of *Marbury* are familiar to every American lawyer. On the eve of leaving office President John Adams attempted to appoint William Marbury as Justice of the Peace for the District of Columbia. The commission appointing Marbury was signed by the President, but the commission was not delivered to Marbury before Adams left office. The incoming President, Thomas Jefferson, instructed his Secretary of State, James Madison, not to deliver the commission to Marbury. Congress, in the Judiciary Act of 1789, had given the Supreme Court the power to issue writs of mandamus to any public official of the United States. Accordingly, Marbury sued Madison in the Supreme Court, asking the court to issue a writ of mandamus ordering Madison to deliver the commission.¹²⁰

The second step in briefing a case is to state the issue. The issue of a case is the question of law that the court answers. But even a cursory examination of the court's opinion in *Marbury* reveals a large number of questions that the court answered in addition to the issue of judicial review. A sampling of these other issues includes the following:

1. Does the Supreme Court have jurisdiction over this case?¹²¹
2. Does the Supreme Court have original jurisdiction to issue a writ of mandamus to the Secretary of State?¹²²
3. Is Section 13 of the Judiciary Act a valid statute?¹²³
4. Is Section 13 of the Judiciary Act in conflict with the Constitution?¹²⁴
5. Does Article III, Section 2, Clause 2, of the Constitution authorize Congress to grant the Supreme Court original jurisdiction to issue writs of mandamus

¹¹⁸ *Supra* notes 25-31 and accompanying text.

¹¹⁹ *Supra* note ___ and accompanying text.

¹²⁰ SCHWARTZ, *supra* note ___, at 40.

¹²¹ “It remains to be inquired whether he [Marbury] is entitled to the remedy for which he applies? This depends on ... The power of this court.” *Id.* at 168.

¹²² “Whether it [the writ of mandamus] can issue from this court.” *Id.* at 173.

¹²³ “[I]f this court is not authorized to issue a writ of mandamus to such an officer [the Secretary of State], it must be because the law [Sec. 13 of the Judiciary Act] is unconstitutional, and therefore absolutely incapable of conferring the authority, and assigning the duties which its words purport to confer and assign.” *Id.*

¹²⁴ “If two laws conflict with each other, the courts must decide on the operation of each.” *Id.* at 177.

- against public officers of the United States?¹²⁵
6. Are statutes that are in conflict with the Constitution valid?¹²⁶

It is obvious that the foregoing issues are listed in inverse order of logical progression; for example, question 2 must be answered before question 1. A narrowed and simplified description of Marshall's reasoning is diagrammed below. In this redacted version of his opinion the logical relation among the various issues in the case becomes more apparent.

Syllogism 1

Issue: Does the Supreme Court have jurisdiction over this case?

Fact: This is a case involving the Supreme Court's exercise of original jurisdiction to issue a writ of mandamus to the Secretary of State.

Law: The Supreme Court lacks original jurisdiction to issue a writ of mandamus to the Secretary of State.

Holding: The Supreme Court lacks jurisdiction over this case.

Syllogism 2

Issue: Does the Supreme Court have original jurisdiction to issue a writ of mandamus to the Secretary of State?

Fact: Section 13 of the Judiciary Act is not valid.¹²⁷

Law: The Supreme Court may exercise jurisdiction over to issue a writ of mandamus to the Secretary of State only if Section 13 of the Judiciary Act is valid.¹²⁸

¹²⁵ "It has been insisted, at the bar, that as the original grant of jurisdiction, to the supreme and inferior courts, is general, and the clause, assigning original jurisdiction to the supreme court, contains no negative or restrictive words, the power remains to the legislature, to assign original jurisdiction to that court in other cases than those specified in the article which has been recited; provided those cases belong to the judicial power of the United States." Id. at 174.

¹²⁶ "The question, whether an act, repugnant to the constitution, can become the law of the land, is a question deeply interesting to the United States" Id. at 176.

¹²⁷ Holding of Syllogism 3.

¹²⁸ "If this court is not authorized to issue a writ of mandamus to such as officer, it must be because the law [Sec. 13 of the Judiciary Act] is unconstitutional, and therefore absolutely incapable of conferring the authority, and assigning the duties which its words purport to confer and assign." Id. at 173. Syllogism 2 simplifies Marshall's reasoning. What Marshall actually says, of course, is not that the Court lacks jurisdiction if the law is unconstitutional but that *if* the court lacks jurisdiction *then* the statute must be unconstitutional and therefore void. Marshall simply assumes that Section 13 of the Judiciary Act is the only possible source of jurisdiction. No other statute is mentioned,

Holding: The Supreme Court lacks original jurisdiction to issue a writ of mandamus to the Secretary of State.¹²⁹

Syllogism 3

Issue: Is Section 13 of the Judiciary Act valid?

Fact: Section 13 of the Judiciary Act is in conflict with the Constitution.¹³⁰

Law: Statutes that are in conflict with the Constitution are not valid.¹³¹

Holding: Section 13 of the Judiciary Act is not valid.¹³²

Syllogism 4

Issue: Is Section 13 of the Judiciary Act in conflict with the Constitution?

Fact: Section 13 of the Judiciary Act provides that the Supreme Court has original jurisdiction to issue writs of mandamus to officers of the United States,¹³³ while Article III Section 2 of the Constitution does not authorize Congress to grant the Supreme Court original jurisdiction to issue writs of

and Marshall's interpretation of Art. III, Sec. 2 necessarily implies that the constitution does not confer jurisdiction over the case on the court.

¹²⁹ The closest that the court comes to flatly stating that it lacks subject matter jurisdiction is the statement, "To enable this court, then, to issue a mandamus, it must be shown to be an exercise of appellate jurisdiction, or to be necessary to enable them to exercise appellate jurisdiction." *Id.* at 175. The Court then concluded that this was an original action, not appellate. *Id.* at 175-176.

¹³⁰ Holding of Syllogism 4.

¹³¹ Holding of Syllogism 6.

¹³² "If an act of the legislature, repugnant to the constitution, is void, does it, notwithstanding its invalidity, bind the courts, and oblige them to give it effect? Or, in other words, though it be not law, does it constitute a rule as operative as if it was a law? This would be to overthrow in fact what was established in theory; and would seem, at first view, an absurdity too gross to be insisted on. It shall, however, receive a more attentive consideration." *Id.* at 177. At this point Marshall develops his justification for the doctrine of judicial review, concluding that since "it is emphatically the province and duty of the judicial department to say what the law is," and that "[i]f two laws conflict, with each other, the courts must decide on the operation of each," the courts must determine the constitutionality of statutes. *Id.*

¹³³ "The act to establish the judicial courts of the United States authorizes the supreme court 'to issue writs of mandamus, in cases warranted by the principles and usages of law, to any courts appointed, or persons holding, office, under the authority of the United States.'" *Id.* at 173.

mandamus to officers of the United States.¹³⁴

Law: If one law permits what another law forbids, the laws are in conflict.¹³⁵

Holding: Section 13 of the Judiciary Act of the Constitution is in conflict with the Constitution.¹³⁶

Syllogism 5

Issue: Does Article III, Section 2, Clause 2 of the Constitution authorize Congress to grant the Supreme Court original jurisdiction to issue writs of mandamus to officers of the United States?

Fact: If Article III, Section 2, Clause 1 of the Constitution is interpreted as allowing Congress to grant the Supreme Court original jurisdiction to issue writs of mandamus to officers of the United States, then Clause 2 would be rendered meaningless.¹³⁷

Law: The Constitution may not be interpreted in such a way as to render any portion of it meaningless.¹³⁸

Holding: Article III, Section 2, Clause 2 of the Constitution does not authorize Congress to grant the Supreme Court original jurisdiction to issue writs of mandamus to officers of the United States.¹³⁹

¹³⁴ Holding of Syllogism 5.

¹³⁵ “This doctrine would subvert the very foundation of all written constitutions. It would declare that an act which, according to the principles and theory of our government, is entirely void, is yet, in practice, completely obligatory. It would declare that if the legislature shall do what is expressly forbidden, such act, notwithstanding the express prohibition, is in reality effectual. It would be giving to the legislature a practical and real omnipotence, with the same breath which professes to restrict their powers within narrow limits. It is prescribing limits, and declaring that those limits may be passed at pleasure.” *Id.* at 178.

¹³⁶ “The authority, therefore, given to the Supreme Court, by the act establishing the judicial courts of the United States, to issue writs of mandamus to public officers, appears not to be warranted by the constitution” *Id.* at 176.

¹³⁷ “The subsequent part of the section is mere surplusage, is entirely without meaning, if such is to be the construction. If congress remains at liberty to give this court ... original jurisdiction where the constitution has declared it shall be appellate; the distribution of jurisdiction, made in the constitution, is form without substance.” *Id.* at 174.

¹³⁸ “It cannot be presumed that any clause in the constitution is intended to be without effect; and, therefore, such a construction is inadmissible, unless the words require it” *Id.*

¹³⁹ “The plain import of the words [of Art. III, Sec. 2] seems to be, that in one class of cases its jurisdiction is original, and not appellate; in the other it is appellate, and not

Syllogism 6

Issue: Are statutes that are in conflict with the Constitution valid?

Law: The constitution is to be interpreted according to the intent of the framers.¹⁴⁰

Fact: The framers intended for any statute in conflict with the constitution to be invalid.¹⁴¹

Holding: Statutes that are in conflict with the Constitution are not valid.¹⁴²

The individual syllogisms that make up the reasoning of a court are connected in that the "holding" of the court in one syllogism in the chain of reasoning supplies a "fact" (minor premise) or a "law" (major premise) for other syllogisms in the chain. In the example above, the holding of syllogism 4 is the minor premise of syllogism 3, and the holding of syllogism 6 is the major premise of syllogism 3.

The court's reasoning proceeds from its root premises to the ultimate result, which is dictated by the last syllogism in the court's chain of reasoning. In this case, the court's holding in syllogism 1 that the Supreme Court lacked jurisdiction required them to dismiss Marbury's petition for writ of mandamus.¹⁴³

original. If any other construction would render the clause inoperative, that is an additional reason for rejecting such other construction, and for adhering to their obvious meaning." Id. at 175.

¹⁴⁰ Marshall implicitly asserts this by repeatedly invoking the intent of the framers. "It cannot be presumed that any clause in the constitution is *intended* to be without effect." Id. at 174. "To what *purpose* are powers limited, and to what *purpose* is that limitation committed to writing, if these limits may, at any time, be passed by those *intended* to be restrained?" Id. at 176. "Could it be the *intention* of those who gave this power, to say that in using it the constitution should not be looked into?" Id. at 179. "From these, and many other selections which might be made, it is apparent, that the framers of the constitution *contemplated* that instrument as a rule for the government of *courts*, as of the legislature." Id. at 179-180.

¹⁴¹ "Certainly all those who have framed written constitutions contemplate them as forming the fundamental and paramount law of the nation" Id. at 176.

¹⁴² "If, then, the courts are to regard the constitution, and the constitution is superior to any ordinary act of the legislature, the constitution, and not such ordinary act, must govern the case to which they both apply." Id. at 177. "[A] law repugnant to the constitution is void" Id. at 180.

¹⁴³ Note that the last step in the opinion -- from a determination that the case ought to be dismissed, to the order dismissing the case -- is not a step of logic. There is a difference between knowing the right thing to do and doing it. Just as there is no necessary connection between an "is" and an "ought," so it is that there is no necessary

The foregoing analysis depicts Marshall's reasoning in *Marbury* as a simple chain of syllogisms, building to a conclusion deductively from its premises. This model does not do justice to Marshall's opinion. In Part IV of this article I present a more complete description of Marshall's reasoning, in order to demonstrate how the persuasiveness of *Marbury* ultimately depends not only on the logical structure of the opinion, but also upon the variety of arguments Marshall makes and the underlying values he invokes.

B. Questions of Ambiguity Involve Challenges to the Minor Premise of a Legal Argument, While Questions of Validity Involve Challenges to the Major Premise of a Legal Argument

One of Winters' important insights is that careful dissection of the steps of logical analysis of a judicial opinion reveals how the court attacks the "hard questions" of law that are presented. Specifically, this method reveals how a court raises questions of ambiguity and questions of validity. To illustrate this point I will continue to refer to the polysyllogistic analysis of *Marbury v. Madison*.

The major premise of Syllogism 3 above is "Statutes that are in conflict with the Constitution are not valid." One may fairly ask, "Is it true that statutes that are in conflict with the Constitution are not valid?" This is a challenge to the validity of the rule, and it is the issue of Syllogism 6.¹⁴⁴

The minor premise of Syllogism 3 is "Section 13 of the Judiciary Act is in conflict with the Constitution." Again one may ask, "Is it true that Section 13 of the Judiciary Act is in conflict with the Constitution?" This question challenges the applicability of the major premise to the facts of the case; in other words, it charges the rule with being ambiguous as applied to the facts of the case. This becomes the issue of Syllogism 4.¹⁴⁵

In Part II of this article it was proposed that hard cases involve either questions of

connection between an "ought" and an "is."

¹⁴⁴ Winters cites Burton as referring to a challenge to the minor premise of an argument as "the problem of importance Winters, note __ *supra*, at 285, citing BURTON, note __ *supra*, at 31-39. I believe that the better reading of Burton is that the problem of importance arises when one is determining whether or not the facts of the case at bar are analogous to the facts of a cited case; in drawing an analogy the problem is, "Are the distinguishing factors 'important?'" See Huhn, note __ *supra*, at __. It is more accurate to refer to these challenges as "questions of ambiguity."

¹⁴⁵ Winters christened challenges to the major premise of a legal syllogism as "problems of interpretation." Winters, note __ *supra*, at 285. Because questions of ambiguity also require interpretation of the law, I propose that challenges to major premises be referred to simply as "questions of validity."

ambiguity or questions of validity.¹⁴⁶ We now see why this is so. The soundness of any syllogism may be challenged by attacking either the minor premise or the major premise. An attack on the minor premise of a legal syllogism tests whether the rule is ambiguous, while an attack on the major premise tests its validity.

This pattern suggests a strategy for attacking legal arguments generally. For example, when the defendant in a tort case raises “economic efficiency” as a defense, one may challenge the applicability of the rule to the facts by asking “Would it be economically efficient to hold the defendant liable in this case?” In addition, or in the alternative, one may challenge the validity of the rule by asking, “Is it true that economic efficiency is a goal of the law of tort?”¹⁴⁷

Posing challenges to the major and minor premises of the legal syllogism eventually takes us back to the root premises of the legal arguments. It is these premises that are examined in the following section of this article.

C. The Root Minor Premises of Legal Arguments Are the Items of Evidence of What the Law Is and the Root Major Premises Are the Five Types of Legal Arguments

Winters’ most ambitious contribution to the rational dissection of legal arguments is his attempt to reconcile the theories of two prominent figures: the logician Stephen Toulmin, and constitutional scholar Philip Bobbitt. Toulmin created a general theory intended to demonstrate the legitimacy of arguments in different fields,¹⁴⁸ while Bobbitt’s theory of constitutional modalities seeks to delineate the universe of legitimate arguments in the field of constitutional law.¹⁴⁹

Winters summarizes Toulmin’s theory as follows: “[I]n our logical practice we recognize fields of argument,”¹⁵⁰ and “[o]ur warrants and the backing we offer for them, what we consider to be grounds, and our sense of logical cogency all vary as a function of the field of problems within which we are reasoning at any given time.”¹⁵¹

¹⁴⁶ See notes ___ - ___ and accompanying text *supra*.

¹⁴⁷ Winters notes, “The authoritativeness of ... the constitutional text itself ... is far less problematic than any proposed ultimate premise (economic efficiency) which might ground the common law.” Winters, note ___ *supra*, at 291.

¹⁴⁸ STEPHEN TOULMIN, THE USES OF ARGUMENT (1958).

¹⁴⁹ See notes ___ - ___ *supra* and accompanying text.

¹⁵⁰ *Id.* at 300.

¹⁵¹ *Id.* at 300-301.

Bobbitt contends that there are six kinds of legal argument that lawyers and judges use to interpret the Constitution. He identifies these interpretative tools – the "modalities" of constitutional argument – as the "historical," "textual," "structural," "doctrinal," "ethical," and "prudential" kinds of arguments.¹⁵² Bobbitt contends that these are the *only* legitimate means of interpreting the Constitution: "There is no constitutional legal argument outside these modalities."¹⁵³

Winters concludes that Bobbitt's modalities are the "categories of backing" for the derivation of interpretations of the Constitution.¹⁵⁴ Winters' characterization of the modalities as categories of backing is consistent with the Bobbitt's conception of the modalities as the universe of "legitimate" constitutional arguments.

Winters also states that the grounds of constitutional argument "might consist of such 'facts' as the constitutional text itself, reports of ratification debates, reports of decided cases, etc."¹⁵⁵ He notes that "[t]he materials I use as backing for any constitutional inference-warrant depend then on the type of argument I mount, the modality I employ."¹⁵⁶ This is consistent with the idea that each kind of legal argument may be considered to be a category of evidence that is admissible to prove what the law is.

The categories of legal argument that I employ in teaching legal analysis – text, intent, precedent, tradition, and policy – are derived from Bobbitt's modalities as well as from the tools of statutory construction identified by Eskridge and Frickey.¹⁵⁷ These forms of argument may be utilized in any area of law that involves the interpretation of text, and Winters' observations about the logical premises of legal argument is equally applicable to them. To illustrate this point we again turn to the polysyllogism in *Marbury v. Madison*.

The syllogisms from *Marbury* set forth the links in the court's chain of reasoning. As we trace the reasoning of the court back through earlier syllogisms in the chain, we eventually reach premises which are not proven, for which no explanation or justification is offered. These are the base premises, the often unspoken assumptions of the court's opinion.

¹⁵² BOBBITT, note __ *supra*, at 12-13 (1991).

¹⁵³ *Id.* at 22.

¹⁵⁴ Winters, note __ *supra*, at 304.

¹⁵⁵ *Id.* at 303.

¹⁵⁶ *Id.* at 304.

¹⁵⁷ See note __ *supra*.

Among the root minor premises of any judicial opinion are the items of evidence of what the law is: the text of statutes and constitutional provisions, and specific evidence of intent, tradition, precedent and policies. For example, the minor premise of Syllogism 4 contains the text of Section 13 of the Judiciary Act, and the minor premise of Syllogism 6 is the court's finding concerning the intent of the Framers.

Among the root major premises of any judicial opinion are the types of legal argument that the court utilizes. In syllogism 6 it is asserted that "the constitution is to be interpreted according to the intent of the framers;" similarly, syllogism 5 assumes the validity of canon of construction that "the Constitution may not be interpreted in such a way as to render any portion of it meaningless."

Whenever a legal argument is made, the person making the argument implicitly asserts that the argument is a legitimate form of legal analysis. The validity of the court's method of analysis is often an unspoken assumption of the opinion; the court simply takes for granted that the argument is derived from a valid source of law. However, sometimes courts take the additional step of expressly justifying the legitimacy of an argument by identifying the source of authority for it. For example, in *Marbury*, the court offered an explanation for its use of "original intent" as a method of interpretation. We can illustrate that portion of the court's reasoning with another syllogism, albeit one that is not perfect:

Syllogism 7

Issue: Is the Constitution to be interpreted according to the intent of the Framers?

Fact: The intent of the Framers in drafting the Constitution represents the original will of the people.¹⁵⁸

Law: The original will of the people is supreme and is the basis of the American government.¹⁵⁹

Holding: The Constitution is to be interpreted according to the intent of the Framers.

This syllogism shows the relation between a method of legal argument and a

¹⁵⁸ “The original and supreme will organizes the government, and assigns to different departments their respective powers.” *Id.* at 176.

¹⁵⁹ Marshall refers to the “original and *supreme* will.” *Id.* He also observes: “That the people have an original right to establish, for their future government, such principles as, in their opinion, shall most conduce to their own happiness is the basis on which the whole American fabric has been erected.” *Id.* He also notes that “the authority from which [the constitution] proceed[s] is supreme.” *Id.* At this point in the opinion Justice Marshall is implicitly relying upon the principle of popular sovereignty memorialized in the Declaration of Independence: “that to secure these rights, governments are instituted among men, deriving their just powers from the consent of the governed.”

source of law. In constitutional cases, the source of authority for the legal argument of "original intent" is the right of the people to establish a limited government. In an analogous way we could analyze the validity of particular texts, precedents, traditions, or policies.¹⁶⁰

In easy cases, the logic of the court's opinion proceeds in four stages. First, the court either proves or assumes the legitimacy of one or more kinds of argument. Second, the court uses that kind of argument to derive a rule of law. Third, the court applies that rule of law to the facts of the case to reach a legal conclusion. Fourth, the court issues a ruling that is consistent with the legal conclusion.

In easy cases the derived rule of law unambiguously applies to the facts, and the validity of the rule is not questioned. In hard cases, however, two or more legal arguments lead to contradictory conclusions about the meaning or the validity of the rule. It is in those cases that we reach the limits of deductive logic; we transcend those limits by means of a complex balancing of myriad values, described in the final portion of this article.

PART IV. THE LIMITS OF DEDUCTIVE LOGIC IN LEGAL REASONING

A. Persuasive Legal Arguments Are Like Cables Rather Than Chains

In Part III of this article we applied Judge Aldisert's polysyllogistic model of legal reasoning to illustrate the steps and to expose the base premises of legal reasoning. Both Aldisert and Winters describe legal reasoning as a "chain" of syllogisms, and that is how I represented the reasoning in *Marbury v. Madison*. The final portion of this article employs a more nuanced and satisfying metaphor to describe legal reasoning. In place of the "chain" of syllogisms, William Eskridge and Philip Frickey propose that persuasive legal argumentation is more accurately described as a "cable:"

"A chain is no stronger than its weakest link, because if any of the singly connected links should break, so too will the chain. In contrast, a cable's strength relies not on that of individual threads, but upon their cumulative strength as they are woven together. Legal arguments are often constructed as chains, but they tend to be more successful when they are cable-like."¹⁶¹

What makes a legal argument resemble a cable rather than a chain? A legal argument that is a cable is one that weaves together the different kinds of legal argument. A brief or judicial opinion that cites text, intent, precedent, tradition, and policy, all

¹⁶⁰ To use Hart's terminology, there must be a "rule of recognition" for determining the legitimacy of legal arguments. CITE HART OR USE INTERNAL FOOTNOTE.

¹⁶¹ William N. Eskridge, Jr., and Philip P. Frickey, *Statutory Interpretation As Practical Reasoning*, 42 Stan. L. Rev. 321, 351 (1990).

tending toward a single interpretation of the law, is far more persuasive than one that utilizes a single modality.¹⁶² When every method of argument points to the same result, it creates an impression of inevitability.

Marshall achieves this effect by weaving a cable of arguments in *Marbury*. The syllogisms set forth in Part III of this article presents a single chain of Marshall's reasoning. But the force of Marshall's argument arises from the variety of arguments he employs. For example, in interpreting the appellate and original jurisdiction clause of Art. III, Sec. 2, I presented Marshall's use of a single canon of construction, that "it cannot be presumed that any clause of the constitution is intended to be without effect."¹⁶³ But Marshall does not rest his interpretation of that provision on that canon alone. He also relied upon another canon of construction, "Affirmative words are often, in their operation, negative of other objects than those affirmed."¹⁶⁴ He also invoked the plain meaning of the constitutional text.¹⁶⁵

In a similar fashion, Marshall employed a number of intratextual arguments¹⁶⁶ in support of his conclusion that the courts are bound to obey the constitution, and are obligated to strike down laws that conflict with the constitution. From the general jurisdiction clause of Article III extending the power of the federal courts to "all cases arising under the constitution,"¹⁶⁷ Marshall concludes that the federal courts must give effect to the constitution.¹⁶⁸ From specific provisions prohibiting state taxes on

¹⁶² See Huhn, *supra* note __, at __.

¹⁶³ *Marbury*, 5 U.S., at 174. This canon formed the major premise of Syllogism 5, text accompanying note __ *supra*.

¹⁶⁴ 5 U.S., at 174.

¹⁶⁵ "[T]he plain import of the words seems to be, that in one class of cases its jurisdiction is original, and not appellate; in the other it is appellate, and not original." *Id.* at 175.

¹⁶⁶ Intratextual arguments and structural arguments are similar in that both refer to other terms of the text, or to its structure, to interpret a provision of legal text. Intratextual arguments differ from structural arguments in that intratextual arguments seek to ascertain the *definition* of a term by comparing it to other portions of the text, while structural arguments seek to ascertain the *policy* that is served by the relevant provision of legal text. See Huhn, *Legal Analysis*, *supra* note __, at __.

¹⁶⁷ "The judicial power of the United States is extended to all cases arising under the constitution." Art. III, Sec. 2, Cl. [1].

¹⁶⁸ "Could it be the intention of those who gave this power, to say that in using it the constitution should not be looked into?" 5 U.S., at 179.

exports,¹⁶⁹ ex post facto laws,¹⁷⁰ and convictions for treason based on the testimony of a single witness,¹⁷¹ Marshall inferred that “the framers of the constitution contemplated that instrument as a rule for the government of *courts*, as well as of the legislature.”¹⁷² After observing that the constitution requires judges to take an oath to support the constitution,¹⁷³ he concluded that it would be immoral if the constitution did not permit judges to enforce it.¹⁷⁴ And he inferred the superiority of the constitution to mere statutes from the phrasing of the Supremacy Clause.¹⁷⁵

In addition to these textual arguments Marshall proffered powerful policy and tradition arguments in support of the principle of judicial review. He observed that if statutes that are contrary to the constitution are binding law, “then written constitutions are absurd attempts, on the part of the people, to limit a power in its own nature illimitable.” He added:

This doctrine would subvert the very foundation of all written constitutions. ... That it thus reduces to nothing what we have deemed the greatest improvement on political institutions, a written constitution, would of itself be sufficient, in America, where written constitutions have been viewed with so much reverence, for rejecting the construction.¹⁷⁶

¹⁶⁹ Art. I, Sec. 9, Cl. [5].

¹⁷⁰ Art. I, Sec. 9, Cl. [3].

¹⁷¹ Art. III, Sec. 3, Cl. [1].

¹⁷² 5 U.S., at 179-180.

¹⁷³ “The Senators and Representatives before mentioned, and the Members of the several State Legislatures, and all executive and judicial Officers, both of the United States and of the several States, shall be bound by Oath or Affirmation to support this Constitution” Art. VI, Cl. 3.

¹⁷⁴ “Why otherwise does it direct the judges to take an oath to support it? This oath certainly applies in an especial manner, to their conduct in their official character. How immoral to impose it on them, if they were to be used as the instruments, and the knowing instruments, for violating what they swear to support!” 5 U.S., at 180.

¹⁷⁵ “It is also not entirely unworthy of observation, that in declaring what shall be *supreme* law of the land, the *constitution* is first mentioned; and not the laws of the United States generally, but those only which shall be made in *pursuance* of the constitution, have that rank.” *Id.*

¹⁷⁶ *Id.* at 178.

By interweaving textual, intent, tradition, and policy arguments, all pointing to the same conclusion, Marshall makes the court’s decision in *Marbury* seem inevitable. By drawing together these separate strands Marshall created a powerful legal argument in support of the principle of judicial review.¹⁷⁷

Hard cases, in contrast, are those where plausible legal arguments may be created for two contradictory results. Deductive logic is powerless to resolve such contradictions; instead, hard cases are resolved by balancing. This balancing proceeds on two levels: we evaluate the strength of a legal argument standing alone, and we evaluate its strength as compared to other types of arguments.

B. Intramodal and Intermodal Legal Arguments

These two levels of balancing correspond to the two types of challenges to legal arguments: there are “intramodal”¹⁷⁸ and “intermodal”¹⁷⁹ challenges. Intramodal challenges attack legal arguments on their own terms, while intermodal challenges attack the category of argument asserted.

I have previously identified twenty-five intramodal types of attacks on legal arguments, as well as two types of intermodal attacks, all of which are listed below:¹⁸⁰

INTRAMODAL ATTACKS

I. ATTACKS ON TEXTUAL ARGUMENTS

A. ATTACKS ON ARGUMENTS BASED UPON PLAIN MEANING

1. The Text Has a Different Plain Meaning
2. The Text Is Ambiguous

¹⁷⁷ In describing Marshall’s opinion in *Marbury*, Akhil Amar notes:

Missing from this mosaic, interestingly, is precedent. Although Marshall could have invoked various judicial decisions in support of his analysis of judicial review – prior state court invocations of state constitutions against state legislatures, a famous circuit court ruling striking down a federal statute, an earlier Supreme Court case invalidating a state statute on Supremacy Clause grounds – he does not.” Akhil Amar, *Foreward: The Document and the Doctrine*, 114 Harv. L. Rev. 26, 32 (2000).

¹⁷⁸ The term “intramodal” was coined in J.M. Balkin and Sanford Levinson, *Constitutional Grammar*, 72 Tex. L. Rev. 1771, 1796 (1994).

¹⁷⁹ Balkin and Levinson call these “cross-modal” attacks. *Id.* See Huhn, note __ *supra*, at __.

¹⁸⁰ See Huhn, note __ *supra*, at __.

B. ATTACKS ON ARGUMENTS THAT ARE BASED UPON CANONS OF CONSTRUCTION

3. The Canon of Construction Does Not Apply
4. A Conflicting Canon of Construction Applies

C. ATTACKS ON INTRATEXTUAL ARGUMENTS

5. There is a Conflicting Intratextual Inference Drawn From the Same Text
6. There is a Conflicting Intratextual Inference Drawn From Different Text

II. ATTACKS ON ARGUMENTS BASED UPON INTENT

7. The Evidence of Intent Is Not Sufficient
8. The Framers of the Law Did Not Anticipate Current Events
9. The Person Whose Intent Was Proven Did Not Count

III. ATTACKS ON ARGUMENTS BASED UPON PRECEDENT

10. The Case Does Not Stand for the Cited Proposition
11. The Opinion Did Not Command a Majority of the Court
12. The Opinion Was Not Issued By a Controlling Authority
13. The Court's Opinion Was Not Holding But Rather Obiter Dictum
14. The Case Is Distinguishable Because of Dissimilar Facts
15. The Case is Distinguishable For Policy Reasons
16. There Are Two Conflicting Lines of Authority
17. The Case Has Been Overruled
18. The Case Should Be Overruled

IV. ATTACKS ON ARGUMENTS BASED UPON TRADITION

19. No Such Tradition Exists
20. There Is a Conflicting Tradition

V. ATTACKS ON ARGUMENTS BASED UPON POLICY

21. The Predictive Judgment Is Not Factually Accurate
22. The Policy Is Not One of the Purposes of the Law
23. The Policy is Not Sufficiently Strong
24. The Policy Is Not Served In This Case
25. The Policy Is Outweighed by a Competing Policy

INTERMODAL ATTACKS

1. FOUNDATIONAL ATTACKS
2. RELATIONAL ATTACKS

The twenty-five kinds of intramodal attacks are self-explanatory. Each type of intramodal attack questions one or more constituent elements of the argument itself; for example, one might challenge the applicability of a canon of construction, the evidence of the framers' intent, the level of the court that issued an opinion, or the strength of a tradition.

Intermodal attacks are not as familiar, but are easily described. Intermodal attacks involve a comparison between two or more different types of arguments, such as text

versus intent¹⁸¹ or precedent versus policy.¹⁸² There are two different kinds of intermodal attacks: foundational and relational. Foundational attacks deny the *legitimacy* of a form of argument. Relatively few jurists and scholars rely on foundational arguments, but among them are some distinguished figures; for example, Justice Black and Judge Bork both mounted forceful attacks on the legitimacy of policy analysis for interpreting the Constitution,¹⁸³ while Justice Scalia has stated that the only legitimate types of legal arguments are text and tradition.¹⁸⁴ In contrast, the far more common relational arguments assert the *relative superiority* of one type of argument over another; for example, one might argue the relative advantages of textual analysis against the advantages of seeking interpretative intent.¹⁸⁵

The difference between an intramodal and an intermodal attack may be clarified by the following example. Suppose that one attorney has asserted a legal argument based upon precedent. Another attorney could attack this argument *intramodally* by challenging the authoritativeness or applicability of the cited case; or the other attorney could mount an *intermodal* attack by asserting that the weight of the precedent is outweighed by a competing policy. The remainder of this article describes how we evaluate the strength of intermodal and intermodal arguments.

C. A Metaphor for Evaluating the Persuasiveness of Legal Arguments in Hard Cases

How do we measure the persuasiveness of a legal argument, its “force?” I offer a metaphor to describe how we make this determination.

Imagine competing legal arguments as bowling balls of different weights rolling down ramps of different inclines. Each bowling ball represents a set of evidence supporting a specific legal argument, such as a judicial decision or the legislative history of a statute. Each ramp represents a category of argument, such as precedent or intent. The force of each argument corresponds to the force with which the ball strikes a barrier at the base of the incline.

The intramodal strength of an argument is the weight of the ball, its self-contained value. For example, in evaluating the intramodal strength of an argument based upon precedent, we consider a number of factors that affect the authoritativeness of the judicial opinion, such as the level of the court that issued the opinion. The intermodal strength of

¹⁸¹ Id. at ___.

¹⁸² Id. at ___.

¹⁸³ Id. at ___.

¹⁸⁴ Id. at ___.

¹⁸⁵ Id. at ___.

an argument is represented by the sharpness of the angle that the ramp is inclined; the sharper the angle, the more force that category of argument is capable of generating.¹⁸⁶ For example, a court might be inclined to rely upon precedent more than intent. Just as the force of the ball at the base of the incline is a factor of both its weight and the inclination of the ramp, the overall persuasiveness of any legal argument is a function of both its intramodal and intermodal strength.

D. An Example Using Intramodal and Intermodal Reasoning: *Jacob & Youngs v. Kent*

A familiar example utilizing both intramodal and intermodal arguments is the opinion of Justice Benjamin Cardozo of the New York State Court of Appeals in *Jacob & Youngs, Inc. v. Kent*,¹⁸⁷ an old chestnut of the law of contracts.¹⁸⁸ The intramodal argument in *Jacob & Youngs* concerns the applicability of judicial precedent. The intermodal arguments feature the comparative weight of precedent versus policy and text versus intent.

The Decision in Jacob & Youngs

Jacob and Youngs, a building contractor, built a house for Kent, and sued to recover the balance owed on the contract.¹⁸⁹ The owner refused to pay the full contract price because the contractor had failed to install the type of pipe specified in the contract (Reading pipe), but had instead substituted pipe manufactured by other companies.¹⁹⁰ The contractor offered sufficient evidence tending to prove that the error was unintentional.¹⁹¹ The contractor also offered evidence, apparently stipulated to by the

¹⁸⁶ The intermodal strength of a legal argument depends upon the field of law under consideration, as well as the context of the particular case. For example, “intent” and “precedent” are generally acknowledged to be stronger in the interpretation of statutes than in the interpretation of the constitution. Huhn, *supra* note __, at ____.

¹⁸⁷ 230 N.Y. 239, 129 N.E. 889 (1921).

¹⁸⁸ Cardozo’s opinion in *Jacob & Youngs* is a standard tool of legal pedagogy. It is reprinted in 11 out of 13 leading contracts casebooks. Lawrence A. Cunningham, *Cardozo and Posner: A Study in Contracts*, 36 Wm. & Mary L. Rev. 1379, 1459 (1995).

¹⁸⁹ 230 N.Y., at 240, 129 N.E., at 890.

¹⁹⁰ *Id.*

¹⁹¹ “The evidence sustains a finding that the omission of the prescribed brand of pipe was neither fraudulent nor willful. It was the result of oversight and inattention of the plaintiff’s subcontractor.” *Id.* at 241, 129 N.E. at 890.

owner,¹⁹² that the pipe that was used was the same in quality, appearance, market value, and cost as Reading pipe,¹⁹³ but the trial court excluded this evidence and entered a directed verdict for the owner.¹⁹⁴

The first issue in *Jacob and Youngs* was whether the evidence proffered by the contractor was admissible and sufficient to prove “substantial performance.” Under the law of New York, if a contractor had substantially performed its obligations, the owner owed the contractor the contract price less an allowance for any damages sustained by the owner due to the contractor’s failure to fully perform.¹⁹⁵ However, if the contractor did not substantially perform its obligations, then it could have no recovery under the contract.¹⁹⁶

The second issue in *Jacob and Youngs* was, if the contract were considered to have been substantially performed, how much of an allowance or deduction from the contract price was the owner entitled to on account of the contractor’s failure to install the correct brand of pipe? Since most of the pipe had already been encased in the walls, it would have been prohibitively expensive to replace it with Reading pipe.¹⁹⁷ Thus, if the owner’s allowance was the cost of replacing the non-conforming pipe, the contractor would have no recovery. On the other hand, if the owner’s allowance was the difference in value between Reading pipe and the pipe that was used – an amount that the court stated was “either nominal or nothing”¹⁹⁸ – then the contractor would be entitled to all or virtually all of the remainder of the unpaid contract price.

Cardozo and the majority of the court ruled in favor of the contractor on both liability and damages. In his opinion Cardozo introduced two innovations into the law of contract. First, he developed a multi-factor balancing test to determine the meaning of

¹⁹² The court refers to the “stipulation” at the close of its opinion. *Id.* at 244, 129 N.E. at 891.

¹⁹³ *Id.* at 241, 129 N.E. at 890.

¹⁹⁴ *Id.*

¹⁹⁵ *Woodward v. Fuller*, 80 N.Y. 312 (1880).

¹⁹⁶ *Smith v. Brady*, 17 N.Y. 173 (1858).

¹⁹⁷ “The plumbing was then encased within the walls except in a few places where it had to be exposed. Obedience to the order meant more than the substitution of other pipe. It meant the demolition at great expense of substantial parts of the completed structure.” 230 N.Y. at 241-242, 129 N.E. at 890.

¹⁹⁸ *Id.* at 243, 129 N.E. at 891.

the term “substantial performance.”¹⁹⁹ Second, he held that when a contract is substantially performed, the proper measure of damages is not “cost of completion” but “difference in value.”²⁰⁰ Cardozo’s opinion includes both intramodal and intermodal arguments.

The Intramodal Argument

The intramodal argument, which is based on precedent, is quite straightforward. Two previous decisions of the New York State Court of Appeals were pertinent to the case: *Smith v. Brady*,²⁰¹ and *Woodward v. Fuller*.²⁰² The *Smith* case held that a contractor who did not perform his contract to the exact specifications of the contract was not entitled to be paid – the “forfeiture” rule.²⁰³ In *Woodward* the Court modified the forfeiture rule, and recognized if the contractor had substantially performed the contract then the contractor would be entitled to recover the contract price less the owner’s damages.²⁰⁴

The dissenting justices in *Jacob & Youngs* believed that the case was governed by the forfeiture rule of *Smith*, and quoted extensively from that case.²⁰⁵ The dissent concluded that the contractor’s breach “was either intentional or due to gross neglect,”²⁰⁶ and that “[t]he rule, therefore, of substantial performance, with damages for unsubstantial omissions, has no application.”²⁰⁷ The dissent accordingly found that *Woodward* was not applicable:

If the plaintiff had intended to, and had, complied with the terms of the

¹⁹⁹ See *infra* note __ and accompanying text.

²⁰⁰ See *infra* note __ and accompanying text.

²⁰¹ 17 N.Y. 173 (1858).

²⁰² 80 N.Y. 312 (1880).

²⁰³ “He can demand payment only upon and according to the terms of his contract, and if the conditions on which payment is due have not been performed, then the right to demand it does not exist.” 17 N.Y. at 186.

²⁰⁴ 80 N.Y. at

²⁰⁵ 230 N.Y. at 248, 129 N.E. at 893.

²⁰⁶ “The plaintiff did not perform its contract. Its failure to do so was either intentional or due to gross neglect which, under the uncontradicted facts, amounted to the same thing” 230 N.Y., at 245, 239 N.E. at 892 (McLaughlin, J. dissenting).

²⁰⁷ *Id.* at 247, 129 N.E. at 893.

contract except as to minor omissions, due to inadvertence, then he might be allowed to recover the contract price, less the amount necessary to fully compensate the defendant for damages caused by such omissions. [Citing *Woodward* and *Nolan v. Whitney*, 88 N.Y. 648 (1882).] But that is not this case.²⁰⁸

Accordingly, under *Smith*, the dissent would have affirmed the trial court's decision excluding the contractor's evidence and directing a verdict on behalf of the owner.²⁰⁹

Cardozo concluded that *Jacob & Youngs* was governed by *Woodward*, and not by *Smith*. He held that a reasonable jury could have found the contractor's substitution of pipe was "neither fraudulent nor willful,"²¹⁰ but was instead "the result of the oversight and inattention of the plaintiff's subcontractor."²¹¹ He also found that the proffered evidence "would have supplied some basis for the inference that the defect was insignificant in its relation to the project."²¹² Accordingly, the substantial performance rule of *Woodward* came into play, and the trial court had erred by excluding the contractor's evidence and in directing a verdict for the owner. Because the owner had stipulated to the accuracy of the contractor's contention that the pipe that was used was equal in cost and quality to the pipe that was used, Cardozo entered a directed verdict for the contractor.²¹³

The Intermodal Arguments

The difficult and subtle parts of *Jacob & Youngs* – in my opinion, the reason for the enduring popularity of this case – are the intermodal arguments. There are two intermodal clashes highlighted by Cardozo: precedent versus policy in the interpretation of the law, and text versus intent in the interpretation of the contract.

As noted above, Cardozo decided to follow *Woodward* rather than *Smith*, and invoked the substantial performance doctrine. But how is a jury to decide whether or not a contractor has substantially performed a contract? Cardozo first noted that whether a contractor's performance is substantial "cannot be settled by a formula."²¹⁴ Instead, he

²⁰⁸ Id. at 246-247, 129 N.E. at 892.

²⁰⁹ Id. at 247, 129 N.E. at 893.

²¹⁰ Id. at 241, 129 N.E. at 890.

²¹¹ Id.

²¹² Id.

²¹³ Id. at 245, 129 N.E. at 892.

developed a multi-factor balancing test based upon what he perceived to be the underlying policies served by the substantial performance test. Cardozo identified four such factors: “the purpose to be served, the desire to be gratified, the excuse for deviation from the letter, the cruelty of enforced adherence.”²¹⁵

Cardozo acknowledged that this multi-factor standard was, compared to the forfeiture rule, relatively indeterminate, but he vigorously defended the standard against the rule:

Those who think more of symmetry and logic in the development of legal rules than of practical adaptation to the attainment of a just result will be troubled by a classification where the lines of division are so wavering and blurred. Something, doubtless, may be said on the score of consistency and certainty in favor of a stricter standard. The courts have balanced such considerations against those of equity and fairness, and found the latter to be the weightier.²¹⁶

Cardozo then turned to the question of damages. Would the contractor be permitted to recover the unpaid portion of the contract price, or would its recovery be offset by the cost of replacing the pipe that had been installed in the house? Here, Cardozo was apparently constrained by precedent. In *Spence v. Ham*²¹⁷ the New York Court of Appeals had previously specified the measure of damages, holding that in cases of substantial performance the contractor was entitled to recover the contract price less the cost of completing the contract according to its terms.²¹⁸

²¹⁴ Id. at 243, 129 N.E. 891.

²¹⁵ Id. The Restatement, Second, of Contracts quickly adopted Cardozo’s factors for determining whether or not the contractor had substantially performed the contract. “This doctrine of substantial performance is one of Cardozo’s most important contributions to the law of contracts, having been showcased in a Restatement section soon after it was handed down and having been widely adopted ever since. Cunningham, *supra* note __, at 1442. See also Amy B. Cohen, *Reviving Jacob & Youngs, Inc. v. Kent: Material Breach Doctrine Reconsidered*, 42 Vill. L. Rev. 65 78-79 (1997).

²¹⁶ 230 N.Y. at 242-243, 129 N.E. at 891. One scholar cites this as “an example of the on-going dialectic, in general contract law, between the use of the ‘rule of law’ to advance the norms of certainty and predictability and the ‘ex contractu’ norms of fairness and justice that favor ad hoc exceptions or the use of standards in place of rules.” Larry A. DiMatteo, *The Norms of Contract: The Fairness Inquiry and the “Law of Satisfaction” – A Nonunified Theory*, 24 Hofstra L. Rev. 349 (1995).

²¹⁷ 163 N.Y. 220 (1900).

²¹⁸ “Unsubstantial defects may be cured, but at the expense of the contractor, not of the owner.” 163 N.Y. at 226, 57 N.E. at 413.

Cardozo overruled *Spence*, and held that the owner's allowance in cases of substantial performance was to be measured by the difference in value between the promised performance and the actual performance, rather than the cost of completing the contract strictly according to its terms.²¹⁹ In so ruling Cardozo relied upon policy and intent arguments.

Cardozo explained that the same policy considerations supporting the substantial performance doctrine also supported this liberal measure of recovery for the contractor:

The rule that gives a remedy in cases of substantial performance with compensation for defects of trivial or inappreciable importance has been developed by the courts as an instrument of justice. The measure of the allowance must be shaped to the same end.²²⁰

Cardozo thus utilized a policy argument both to define "substantial performance" and to ascertain the measure of damages. But Cardozo did not rely solely on policy arguments to make these points. He also made effective use of "the intent of the parties" to interpret the contractor's contractual obligation.²²¹

It was necessary for Cardozo to invoke the intent of the parties because the language of the contract practically dictated a result in favor of the owner. The contract stated that "the work included in this contract is to be done under the direction of the [owner's] Architect, and that his decision as to the true construction and meaning of the drawings and specifications shall be final."²²² The contract also expressly provided that if the contractor failed to perform any part of the contract, the owner was entitled to provide the materials and deduct the cost from any amounts due under the contract.²²³

²¹⁹ "It is true that in most cases the cost of replacement is the measure. *Spence v. Ham*, *supra*. The owner is entitled to the money which will permit him to complete, unless the cost of completion is grossly and unfairly out of proportion to the good to be attained. When that is true, the measure is the difference in value." 230 N.Y. 244, 129 N.E. at 891.

²²⁰ *Id.* at 244, 129 N.E. at 892.

²²¹ Legal arguments based upon "intent" view the law not as the legal text itself, but what was meant by the drafters of the text. "Intent" may refer to the intent of the framers, the intent of the legislature, administrative intent, the intent of the parties, or the intent of the testator. See Huhn, *supra* note ___, at ___.

²²² RICHARD DANZIG, *THE CAPABILITY PROBLEM IN CONTRACT LAW: FURTHER READINGS ON WELL-KNOWN CASES* 109 (1978).

²²³ *Id.* at 110.

Cardozo has been criticized for failing to mention these contractual provisions in his opinion.²²⁴ On motion for reargument, the Court unanimously stated that “the court did not overlook the specification which provides that defective work shall be replaced,” and explained that the court had treated the specification not as a dependent condition to payment, but as an independent promise, for which the remedy is not forfeiture but damages.²²⁵

How does one tell the difference between a dependent condition and an independent promise? In the principal opinion Cardozo stated: “Considerations partly of justice and partly of presumable intention are to tell us whether this or that promise shall be placed in one class or another.”²²⁶ He explained:

From the conclusion that promises may not be treated as dependent to the extent of their uttermost minutiae without a sacrifice of justice, the progress is a short one to the conclusion that they may not be so treated without a perversion of intention. Intention not otherwise revealed may be presumed to hold in contemplation the reasonable and probable. If something else is in view, it must not be left to implication. There will be no assumption of a purpose to visit venial faults with oppressive retribution.²²⁷

The dissenting opinion in *Jacob & Youngs* emphasized the textual obligations of the contractor:

Defendant contracted for pipe made by the Reading Manufacturing Company. What his reason was for requiring this kind of pipe is of no importance. He wanted that and was entitled to it. It may have been a mere whim on his part, but even so, he had a right to this kind of pipe, regardless of whether some other kind, according to the opinion of the contractor or experts, would have been ‘just as good, better, or done just as well.’ He agreed to pay only upon condition that the pipe installed were

²²⁴ “Cardozo declared that his ruling was ‘not to say that the parties are not free by apt and certain words to effectuate a purpose that performance of every term shall be a condition of recovery.’ Many have seen this statement as disingenuous in light of a contract term, which Cardozo does not cite in *Kent*, stating that any material not fully in accordance with the specifications in every respect would be removed and replaced in accordance with the actual specifications.” Cunningham, *supra* note ___, at 1440.

²²⁵ 230 N.Y. 656, 656-7, 130 N.E. 933 (1921).

²²⁶ 230 N.Y. at 242, 129 N.E. at 890.

²²⁷ *Id.* at 242, 129 N.E. at 891.

made by that company and he ought not to be compelled to pay unless that condition be performed.”²²⁸

Cardozo admitted that the parties were free to contract for exact performance. However, he indicated that there is a presumption against such a construction of the contract:

This is not to say that the parties are not free by apt and certain words to effectuate a purpose that performance of every term shall be a condition of recovery. That question is not here. This is merely to say that the law will be slow to impute the purpose, in the silence of the parties, where the significance of the default is grievously out of proportion to the oppression of the forfeiture.²²⁹

Just as Cardozo chose policy over precedent to interpret the law of “substantial performance,” he also chose “the intent of the parties” over “text” to interpret the contract.²³⁰ Recall that each type of legal argument – text, intent, precedent, tradition, and policy – reflects a different ordering in the values that are served by a system of laws.²³¹ Intermodal arguments in effect represent conflicts among these underlying values. In *Jacob & Youngs* the crux of the case for Cardozo was the balance between “consistency and certainty” on the one hand, and “equity and fairness” on the other.²³² Cardozo elevated equity over consistency, and as a result he chose policy over precedent and intent over text. As he observes, “Those who think more of symmetry and logic in

²²⁸ Id. at 247, 129 N.E. at 893.

²²⁹ Id. at 243-244, 129 N.E. at 891.

²³⁰ Cunningham observes that Cardozo’s opinion in *Jacob v. Youngs* “protects the reasonable expectations of the contracting parties even while it necessarily locates those expectations outside the four corners of the written agreement.” Cunningham, *supra* note ___, at 1398. Another scholar notes: “When parties enter into a contract, they rarely foresee every circumstance that might arise during the course of performance. How should a court deal with problems not expressly dealt with in the contract? In two of the most significant contract cases – *Wood v. Lucy, Lady Duff-Gordon*, and *Jacob & Youngs v. Kent* – the Court of Appeals looked beyond the language of the contract to reach results that appeared more in line with the party’s intentions.” Stewart E. Sterk, *The New York Court of Appeals: 150 Years of Leading Decisions*, 48 Syracuse L. Rev. 1391, 1398 (1998). (*Wood* was also written by Cardozo, and is reprinted in even more casebooks. Cunningham, *supra* note ___, at 1459.)

²³¹ See *supra* at note ___ and accompanying text.

²³² See *supra* note ___ and accompanying text.

the development of legal rules” would be troubled by his reasoning;²³³ but the fact is that no system of logic can perform the evaluative and balancing function demanded of intermodal arguments.²³⁴

Furthermore, like Marshall’s opinion in *Marbury*, Cardozo’s opinion in *Jacob & Youngs* exemplifies the recommendation of Eskridge and Frickey that legal arguments should resemble a cable rather than a chain. The power of Cardozo’s reasoning arises in part from the fact that he weaves precedent, intent, and policy together in defining and applying the substantial performance rule.

Deductive logic is suited to formalist analysis and categorical doctrine. But hard cases by definition are cases where either the definition of the terms of rule (“What is ‘substantial performance?’”) or its validity (“Is ‘cost of completion’ or ‘difference in value’ the measure of damages in cases of substantial performance?’”) is challenged. Such cases are resolved by value judgments that are framed by intramodal and intermodal legal arguments.

The susceptibility of a legal argument to an intramodal attack determines the strength of the argument within its category. In addition, the comparative strength of the category of the argument must be measured against that of other categories in the context of a particular case. The ultimate persuasiveness of an argument is a function of both its intramodal and intermodal strength. These determinations are evaluative, not definitional. Careful examination of the legal reasoning in hard cases such as *Jacob & Youngs* reveals the limits of deductive logic.

CONCLUSION

At one time law was considered to be a science; this belief was associated with the concept of “natural law.” And just as law was considered a science, legal reasoning was considered to be a species of deductive logic. However, it is now recognized that the purpose of legal reasoning is not to prove to others the truth of a statement of fact, but is rather to persuade others about how the law ought to be interpreted and applied. Although legal reasoning is logical in form, in substance it is evaluative.

There are two types of hard cases: cases where a rule of law is ambiguous, and cases where the validity of a rule is in question. Questions of ambiguity arise when the minor premise of a proposition of law is challenged, while questions of validity arise when the major premise of a proposition of law is challenged. Hard cases are cases where two or more valid legal arguments lead to contradictory conclusions.

²³³ See *supra* note ___ and accompanying text.

²³⁴ What characterizes Cardozo’s technique is that he “recognized and attempted to harmonize the many competing values at stake in the law of contracts.” Cunningham, *supra* note ___, at 1406.

The brief of a case is not a single syllogism of deductive logic; rather, it consists of strands or chains of syllogisms -- "polysyllogisms." The polysyllogistic approach is a useful means for describing the underlying structure of legal reasoning. This approach reveals that the base minor premises of legal arguments consist of items of evidence of what the law is, while the base major premises are the categories of legal arguments that may be legitimately made.

Deductive logic plays a central role in legal reasoning, but logic alone cannot solve hard cases. When we attempt to reduce the decision of a case to an argument of deductive logic, the aspects of legal reasoning that are *not* deductive are exposed. A system of pure logic works only in easy cases, *i.e.* cases where the validity of the rule of law is unchallenged and the terms of rule are unambiguous. Hard cases are resolved by a complex balancing of intramodal and intermodal arguments, in which the court evaluates not only the strength of individual arguments, but also the relative weight of the values that support our legal system, as implicated in the particular case.