AFTER THE GREAT RECESSION: LAW AND ECONOMICS’ TOPICS OF INVENTION AND ARRANGEMENT & TROPES OF STYLE

Michael D. Murray*

ABSTRACT

In the work, The Great Recession and the Rhetorical Canons of Law and Economics,¹ the Author examined the role of law and economics in the Great Recession of 2008 and onward by examining neoclassical and contemporary law and economics from the perspective of legal rhetoric. The modern, neoclassical school of law and economics—often labeled the “Chicago School”—has had great influence on the American economy and financial system because of its rhetorical canons: mathematical and scientific methods of analysis and

* Associate Professor of Law, Valparaiso University School of Law. Grad. Cert., Fudan University, 1986; B.A. (summa cum laude), Loyola University (Maryland), 1987; J.D., Columbia Law School, 1990. Professor Murray previously taught at the University of Illinois College of Law and Saint Louis University School of Law. Professor Murray thanks Professors Linda Berger (UNLV), Linda Edwards (UNLV), Thomas Ginsburg (Chicago), Terri LeClercq (Texas), and Terry Phelps (American) for their comments on the current version of this Article, and he thanks the participants in the How Rhetoric Shapes the Law Conference at American University, Washington College of Law, October 15, 2010, for their comments on the presentation of this Article. Professor Murray gratefully acknowledges the comments and input of Professor Thomas Ulen (Illinois) on the research leading up to this version of the Article, and he thanks his colleagues at Valparaiso, especially Professors Robert Blomquist, Paul Brietzke, David Herzig, JoEllen Lind, and Alan White, for their comments in two work-in-progress workshops. He regrets that the untimely death of his colleague, law and economics professor Paul Brietzke, prevented him from seeing the final version of this work. Professor Murray thanks Professors Christy DeSanctis (George Washington), Michael Frost (Southwestern), James Levy (Nova Southeastern), and Mark Wojcik (John Marshall) for their comments on the earlier version of this Article posted on SSRN, and he thanks Jenna Throw (J.D. Valparaiso) for her research assistance with this Article. Lastly, he thanks the excellent editors of the Loyola Law Review for their work on this Article.

demonstration; the characterization of legal phenomena as incentives and costs; the rhetorical economic concept of efficiency; and rational choice theory as corrected by modern behavioral social sciences, cognitive studies, and brain science. These canons have made law and economics a persuasive method of legal analysis and a powerful school of contemporary legal rhetoric.

This Article continues the critical conversation by focusing attention on the specific rhetorical topics (topoi) of invention and arrangement and tropes of style that carry out the rhetoric of law and economics. With regard to each topic and trope, the Article will examine the proper, and sometimes improper or unethical, use of the topic or trope within the rhetoric of law and economics, and it will discuss the prescriptive implications of the use of law and economics' topics of invention and arrangement and tropes of style in general legal discourse when evaluated in comparison to the other schools of classical and contemporary legal rhetoric. My conclusion is that the topics of invention and arrangement and tropes of style of law and economics have applications in legal discourse beyond the economic analysis of law, but the topics and tropes are subject to abuse and must be used ethically and with careful regard to their propriety as a tool to create meaning and inspire imagination, and not as a tool of deception or obfuscation within the rhetorical situation at hand.

I. INTRODUCTION

Law and economics is persuasive. The Great Recession is one by-product of the law and economics movement’s ability to persuade lawyers, legislators, and government officials to deregulate and remove restraints so as to allow a largely uninhibited operation of the financial markets and banking

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3. The term, “The Great Recession,” is attributed to Nobel Laureate Professor Joseph Stiglitz, who recently discounted decades of neoclassical economic assumptions when he pointed out that “markets do not work well on their own,” and that, in the recent recession, the United States suffered because the economy lost its “balance between the role of markets and the role of government.” JOSEPH E. STIGLITZ, FREEFALL: AMERICA, FREE MARKETS, AND THE SINKING OF THE WORLD ECONOMY xii (2010). See Murray, Rhetorical Canons of Law and Economics, supra note 1, at 617 n.1.
system. My thesis is that if the modes of persuasion of law and economics are to be used more generally in legal discourse outside the realm of economic analysis of law, the lessons of the Great Recession should serve as a cautionary tale, guiding authors away from uses of these topics and tropes that mislead and obscure the truth, and toward ethical and responsible uses of the rhetoric.

The recognition that the rhetoric of law and economics is persuasive—and not just to legal economists—reveals the enormous potential of law and economics as a lens on legal discourse through which to examine the structure and design of the discourse and as a source of topoi and tropes to construct meaning and to inform and persuade legal audiences. The topoi and tropes of law and economics inspire inventive thinking about

5. In rhetoric, the topoi [Greek] or loci [Latin] (singular, topos or locus = place) are the “topics” or “subjects” of argument that can be made in various situations. Topoi are developed in the process of inventio [Latin] or heuresis [Greek], which may be translated as “invention” or “discovery” of the type of argument that will be most persuasive in the situation, and in the dispositio [Latin] or taxis [Greek] of the argument, which translates as the “arrangement,” “organization,” or “disposition” of the contents of the argument. See EDWARD P.J. CORBETT & ROBERT J. CONNORS, CLASSICAL RHETORIC FOR THE MODERN STUDENT 17, 20 (4th ed. 1999) [hereinafter CORBETT & CONNORS]; Gabriele Knappe, Classical Rhetoric in Anglo-Saxon England, 27 ANGLO-SAXON ENGLAND 5, 25 (Cambridge 1998).
6. A trope is a use of a word that deviates from the ordinary and principal meaning or signification of the word. See CORBETT AND CONNORS, supra note 5, at 379. Tropes are developed in the rhetorical process of style (Latin elocutio; Greek lexis), which pertains to the composition and wording of the discourse, including grammar, word choice, and figures of speech. See generally id. at 378; Knappe, supra note 5, at 25-26; Michael R. Smith, Rhetoric Theory and Legal Writing: An Annotated Bibliography, 3 J. ASSN LEGAL WRITING DIRECTORS 129, 129, 133-34 n.2 (2006) [hereinafter Smith, Rhetoric Theory] (collecting sources on style in classical rhetoric). Figures of speech were divided into tropes (creative variations on the meanings of words) and schemes (artful deviations from the ordinary arrangements of words). Linda L. Berger, Studying and Teaching “Law as Rhetoric”: A Place to Stand, 16 J. LEGAL WRITING INST. 3, 51 n.179 (2010) [hereinafter Berger, Law as Rhetoric]. Professors Berger, Corbett, and Connors identify the classically identified tropes as metaphor, simile, synecdoche, and metonymy; puns; antanaclasis (or repetition of a word in two different senses); paronomasia (use of words that sound alike but have different meanings); periphrasis (substitution of a descriptive word for a proper name or of a proper name for a quality associated with the name); personification; hyperbole; litotes (deliberate use of understatement); rhetorical question; irony; onomatopoeia; oxymoron; and paradox. CORBETT & CONNORS, supra note 5, at 395-400; Berger, Law as Rhetoric, supra note 6, at 51 n.179. See also MICHAEL R. SMITH, ADVANCED LEGAL WRITING: THEORIES AND STRATEGIES IN PERSUASIVE WRITING 199-248; 328-40 (2d ed. 2008) (metaphors and other tropes) [hereinafter SMITH, ADVANCED LEGAL WRITING].
the law that constructs meaning for the author and the audience. For many members of the legal writing discourse community—judges, practitioners, government agencies, and academics—the modes of persuasion of law and economics can provide a critical perspective to construct meaning and improve the persuasiveness of legal discourse generally in content, arrangement, and style.

My goal here is to critically examine the potential of the law and economics’ topics of invention and arrangement and tropes of style as contemporary legal rhetorical devices in areas of law not currently served by the economic analysis of law. My goal is not to critique the neoclassical or contemporary law and economics’ analysis of law, nor to examine the benefits or costs of the application of economic analysis in shaping law and social policy. I seek to examine the potential uses and misuses of the rhetorical devices of law and economics in general legal discourse, because the misuse of these devices played a role in bringing about the Great Recession.

II. LEVELS OF DISCOURSE IN CONTEMPORARY RHETORIC

Rhetoric, in the most complete sense, is the study of effective communication. Effectiveness in communication is determined...
by the audience and the situation. There may be multiple audiences. Some are direct targets within the conception and understanding of the author in preparing the discourse, and others are indirect receivers of the discourse. The level of communication, and, thus, the level of rhetoric, applied to the different audiences is not the same—not every audience will receive, decode, and draw meaning from the communication at the same level of understanding.

My prior work developed the theory that law and economics is a discipline that brings a unique combination of modes of persuasion to construct meaning and to inform and persuade its audiences, which I refer to as the four rhetorical canons of law and economics:

1. Mathematical and scientific methods of analysis and demonstration;
2. The characterization of legal phenomena as incentives and costs;
3. The rhetorical economic concept of efficiency; and
4. Rational choice theory as corrected by the modern behavioral social sciences, cognitive studies, and brain science.

The rhetorical canons of law and economics are employed in legal discourse through *topoi* of invention and arrangement and


11. *Id.* at 622, 630-31.
12. The sources consulted to derive these four canons are many and varied, but, for general reference, see ROBERT COOTER & THOMAS ULEN, LAW & ECONOMICS 2, 3, 4, 5, 41-43 (5th ed. 2008) [hereinafter COOTER & ULEN]; POSNER, ECONOMIC ANALYSIS OF LAW, supra note 7, at 3-4, 9, 13, 21, 24-25, 495-96; Grant M. Hayden & Stephen E. Ellis, *Law and Economics After Behavioral Economics*, 55 U. KAN. L. REV. 629 (2007).
tropes of style. Many of the topoi and tropes of law and economics operate on a different level of discourse than direct communication of economic information to expert members of the economic discourse community. Building on the work of Wayne C. Booth, the late professor and a leading rhetorician from the University of Chicago (but not of the Chicago School of economics), I present the three levels of rhetorical persuasion that are implicated by the topoi of invention and arrangement and tropes of style of law and economics:

**LEVEL 1 RHETORIC—UNDERSTANDING BY THE MEMBERS OF THE DISCIPLINE**

Level 1 rhetoric (rhetoric-1) is true understanding and acceptance of the truth of the discourse by members of the discipline in which the discourse occurs, who are schooled and knowledgeable in the discipline and its theories. This level of understanding is reserved to experts in the field.13

**LEVEL 2 RHETORIC—ACCEPTANCE OF THE PERSUASIVENESS OF THE DISCOURSE BY UNDERSTANDING THE RELIABILITY OF THE SUPPORT**

Level 2 rhetoric (rhetoric-2) is not a complete understanding of the discourse such as the understanding of members of the discipline of the discourse. Rather, the audiences for rhetoric-2 are receivers or decision-makers who do not completely understand the doctrine and theories of the discipline of the discourse. Level 2 reception of the discourse allows the audience to accept the indicia of truth and reliability of the discourse based on an understanding of the reliability of the internal sources supporting the discourse that are used in the discourse, such as scientific results, scholarly sources, accepted forms of evidence, and works with known reputations.14 Level 2 reception also

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allows the audience to determine the reliability of sources external to the discourse that support the discourse, such as the character and testimony of trusted recommenders, and the observation of peer-acceptance of the work and the author by members of the same discipline who presumably have rhetoric-1 understanding of the material. The acceptance of the reliability of the supporting sources allows for persuasion of the truth and reliability of the discourse even without fully understanding the discourse.

LEVEL 3 RHETORIC—PERSUASION BY THE INTERNAL CONSISTENCY AND METHODOLOGY OF THE DISCOURSE

The third level of rhetoric (rhetoric-3) again is one in which the audience of decision-makers does not completely understand the truth of the discipline and its theories, but the audience observes the internal consistency and logic, and how the discourse tracks under the evaluation of the design and execution of the discourse. Level 3 receivers will evaluate a discourse by asking questions such as: Do the methods used appear to be sound? Does the author appear to be competent in employing those methods? Is the end product logical and internally consistent? An example would be the evaluation of a scholarly journal article to determine if the author appears to be competent and the writing consistent with the standards for scholarly inquiry and discourse within the academy or within one

HASTINGS L.J. 1143, 1143-44 (1998) (“[T]he testimonial discourse of experts, though not cast in the elegant form of oratory, has rhetorical tenor and effect. Expert testimony, even that based on natural or social science, is argumentation, made for, and in, a unique context—the law.”).


16. Id. Professor Ellen P. Goodman, Stealth Marketing and Editorial Integrity, 85 TEX. L. REV. 83, 115 (2006) (citing 1 JÜRGEN HABERMAS, THE THEORY OF COMMUNICATIVE ACTION 42, 286-87, 305 (orig. ed. 1981; Thomas McCarthy trans., (1984)) (describing the communication theory of Jürgen Habermas that depends upon the existence of communicative action in discourse to “reach understanding” or “communicatively achieved agreement.”). Communicative action persuades by using a set of “validity claims.” Habermas, supra note 16, at 75, 308. News reporting of world events may make a “constative” utterance whose claim to validity is truth. Id. at 309. Storytelling and narrative reasoning may be considered “expressive” utterances whose claim to validity is rooted in nothing more than sincerity. Id. at 174, 325-26. “Regulative” utterances have a claim to validity of “rightness.” Id. Participants to communicative action can either accept these validity claims or subject them to criticism and demand justification. Id. at 99.


18. See id.
institution as a whole. Another way that Level 3 receivers might evaluate a discourse is by determining whether the author displays the proper ethos of her role in the creation of the discourse.

In making recommendations for legal discourse based on the rhetoric of law and economics, I will mention the level of rhetoric of the device employed. In many instances, it will not be rhetoric-1 discourse, that which, for instance, an economist would aim to achieve when communicating with other economists, and law and economics scholars would aim to achieve when communicating with other law and economics scholars. In most cases, the rhetorical devices described here will be modes of

20. Ethos embodies both moral and intellectual qualities. *JAKOB WISSE, ETHOS AND PATHOS FROM ARISTOTLE TO CICERO* 30 (1989). While virtue and high moral character obviously are concepts relating to the advocate’s ethics and morality, the concept of practical wisdom suggests that the audience must perceive the advocate’s reasoning as sound, not simply from a formal, logical standpoint, but in a broader sense of perceiving that the advocate possesses credibility and common sense. See *ARISTOTLE, THE RHETORIC*, *supra* note 9, bk. II, ch. 1, at 1378a; WISSE, *supra* note 20, at 30. The concept of good will indicates that the advocate should evince good will and benevolence toward the audience as opposed to a spirit of malice revealed through attempted deception, obfuscation, or self-aggrandizement. *ARISTOTLE, THE RHETORIC*, *supra* note 9, bk. II, ch. 1, at 1378a; WISSE, *supra* note 20, at 30. Classical rhetoric focused as much on projecting the right moral character as in possessing it. CORBETT & CONNORS, *supra* note 5, at 72-73; WISSE, *supra* note 20, at 30-33. Thus, it matters dearly when the audience weighs the persuasiveness of arguments and counter-arguments based on probability, not certainty of proof. CORBETT & CONNORS, *supra* note 5, at 72. Thus, it matters dearly when the audience weighs the persuasiveness of arguments and counter-arguments based on probability that the audience perceive the advocate as credible and believable, "possessing genuine wisdom and excellence of character." *Id.* (quoting 3 *MARIUS FABRIS QUINTILIAN, INSTITUTIO ORATORIA* sec. viii at 13 (H.E. Butler trans., 1954)) [hereinafter QUINTILIAN, INSTITUTIO ORATORIA]. The slightest lapse in good sense, good will, or moral integrity might turn the audience away from acceptance of the arguments. *Id.* at 73.
persuasion at the rhetoric-2 and rhetoric-3 levels of persuasion: persuasiveness based on the reliability of the support demonstrated in the rhetoric, or persuasiveness based on the internal logic and methodology—in short, the ethos—of the discourse.

III. THE STRUCTURE OF THE RHETORICAL CANONS OF LAW AND ECONOMICS

Each of the four canons of law and economics are used both as topics of invention and arrangement and as tropes of style in persuasive discourse. The four canons of law and economics rhetoric interact together at the same time and toward the same audience. Proper economic discourse incorporates each canon for the persuasion of the audience. There is a connection and interaction in the discourse of each canon to the others that influences the persuasion of the audience—one cannot alter or abandon the canons of efficiency, mathematical and scientific certainty, response to incentives, and even rational choice without affecting the persuasiveness and effectiveness of the economic discourse. An incorrect, overstated, or deceptive message regarding one canon puts the others at risk of suspicion or rejection by the audience.

In modern argument theory, the author of the discourse (Speaker) codes the discourse (Message) for a particular receiver (Audience) according to the conditions, requirements, and limitations of the context of the discourse (Situation). In law and economics rhetorical discourse, the Speaker’s purpose is most
closely aligned with the canon of Efficiency. The Message to achieve an efficient purpose is coded in the language of Incentives and Costs and is framed for the needs of the Audience according to the Rational Choice Theory, and the means used are chosen in reference to the rhetorical Situation with a distinct preference for the methods of Mathematics and Science. Therefore, in my prior work, I depicted the flow of the discourse by which each canon feeds into and simultaneously draws from the other canons, in alignment with the components of modern argument theory, as follows:

**STRUCTURE OF THE RHETORICAL CANONS OF LAW AND ECONOMICS**

<table>
<thead>
<tr>
<th>INVENTION, ARRANGEMENT &amp; STYLE</th>
<th>SPEAKER</th>
<th>INVENTION, ARRANGEMENT &amp; STYLE</th>
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<tr>
<td>SITUATION</td>
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<td>MESSAGE</td>
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<tr>
<td>INVENTION, ARRANGEMENT &amp; STYLE</td>
<td>AUDIENCE</td>
<td>INVENTION, ARRANGEMENT &amp; STYLE</td>
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The diagram indicates the rhetorical modes I discuss in Part IV, which are used as topics of invention and arrangement as tropes of style:

1. Mathematics and Science,
2. Incentives and Costs,
3. Efficiency,

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IV. THE TOPICS AND TROPES OF LAW AND ECONOMICS AND THE LEVELS OF RHETORIC IN WHICH THEY OPERATE

A. RHETORIC-1-2-3 USES OF MATHEMATICS AND SCIENCE AS TOPICS OF INVENTION AND ARRANGEMENT AND AS A TROPE OF STYLE

Under contemporary legal rhetoric’s modern argument theory, rhetoric is the practice of crafting discourse for the audience and the situation. Modern argument theory confronts the problem of the indeterminacy of language. The linguistic limitations of indeterminacy mean that arguments are not provable in the absolute unless the language used is determinate enough for absolute proof—at least “proof” within the language of that discipline—such as the language of mathematics and formal logic. Outside the realms of mathematics and formal logic, language is only determinative of probabilities of meaning, so that, when the discourse extends beyond pure mathematics and formal logic, argumentation depends on the construction of the most reasonable and probable argument that can be made in the social situation or institutional setting. The argument is not


24. See generally BRÜNER & AMSTERDAM, supra note 21, at chs. 2-3, 6-7; PERELMAN & OLBRICHTS-TYTECA, supra note 21, at 4, 15-25; FRANS H. VAN EEMEREN ET AL., supra note 21; Smith, Rhetoric Theory, supra note 6, at 139.

25. See generally PERELMAN, REALM OF RHETORIC, supra note 23, at 9-25; PERELMAN & OLBRICHTS-TYTECA, supra note 21, at 15-25; TOULMIN, INTRODUCTION TO REASONING, supra note 21, at 271-74; Smith, Rhetoric Theory, supra note 6, at 139.

26. See generally PERELMAN & OLBRICHTS-TYTECA, supra note 21, at 4, 15-21, 62, 85; TOULMIN, INTRODUCTION TO REASONING, supra note 21, at 16-18, 271-74;
offered as incontrovertible proof, but instead as the most reasonable and probable outcome that can be advocated in the situation.  

Invention and arrangement are topics of rhetoric that directly confront the rhetorical problem of composing language to impart meaning to an audience and to persuade that audience in a particular situation. Within these topics, Aristotle divided modes of argument into two parts: (1) the modes of argument and persuasion that are invented or created by the author—the *entechnic pisteis*, “artistic” or “artificial,” proofs known as logos, pathos, and ethos; and (2) the modes of argument and persuasion that the author does not or cannot invent, but that are discovered or found—the *atechnic pisteis* or “non-artistic” or “non-artificial” proofs, including facts and data, statistics and reports, documents and contracts, sworn testimony (including expert testimony), interviews, polls, and surveys.

1. INVENTION

Invention describes the means to create, devise, and conceive of persuasive discourse. The term “invention” is a translation of the Latin *inventio* and carries the same meaning as the Greek term for invention or discovery, *heuristic* (Εὑρετική).

Smith, Rhetoric Theory, supra note 6, at 139.

27. See generally PERELMAN & OLBRECHTS-TYTECA, supra note 21; TOULMIN, Uses of Argument, supra note 23. In the legal arena, this theory accepts the fact that the advocate has a client whose facts and legal situation are not necessarily the best possible circumstances for a person legally to be involved in; nevertheless, the advocate must offer the most reasonable, probable, and compelling argument in support of his or her client’s position that can be raised in the situation, with the hope that the decision-maker will find the argument more reasonable and compelling than the opponent’s arguments. Smith, Rhetoric Theory, supra note 6, at 139 (citing Kurt M. Saunders, Law as Rhetoric, Rhetoric as Argument, 44 J. LEGAL EDUC. 566, 567 (1994)).

28. See, e.g., SMITH, ADVANCED LEGAL WRITING, supra note 6, at 10-25.


31. See Berger, Law as Rhetoric, supra note 6, at 48; Translation of “Heuristic” in
The canon of invention serves as a reminder to authors of legal discourse to consider the available means of persuasion and the interaction of the modes chosen so as not to leave out available means or employ self-contradictory or self-defeating means. The classical rhetoricians did not consider this canon to be a list of required elements of argument.32 Ideally, the classical rhetorical topic of invention should be used to craft a discourse to persuade through logos,33 a logical exposition of the argument, as well as by revealing the competence and integrity of the author to handle the exposition itself (ethos),34 and inspire emotions that put the audience in a frame of mind to be persuaded by the argument (pathos),35 by using the non-artificial facts and evidence made available by the rhetorical situation.

Classical rhetoric simultaneously follows three paths toward the goal of persuasion: ethos (persuasion accomplished through the perceived character or reputation of the speaker),36 pathos (persuasion accomplished through the emotional response of the audience to the communication),37 and logos (persuasion accomplished through logical reasoning embodied in the content of the communication).38 The interaction of the three paths of persuasion may be depicted as a “rhetorical triangle” similar to the “communication triangle” discussed in contemporary rhetorical theory39 (see diagram below):

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32. See Frost, Lost Heritage, supra note 30, at 617-18; Frost, Greco-Roman Legal Analysis, supra note 30, at 127.

33. See Smith, Advanced Legal Writing, supra note 6, at 10-25.


35. Covino & Joliffe, supra note 34, at 17; Corbett & Connors, supra note 5, at 77-84; Kennedy, Classical Rhetoric, supra note 34, at 68.


37. Id.

38. Id.

In this conceptualization, the three paths of persuasion flow into one another. The logos of the argument affects the pathos in the audience and simultaneously affects the perception of the ethos of the author. The pathos of the audience members affects how they perceive the ethos of the author and how they receive the logos of the argument.

2. ARRANGEMENT

The classical rhetorical topic of arrangement (Latin dispositio; Greek taxis) pertains to the order and design of the discourse for persuasive effect. Arrangement is driven by context and purpose. The proper and persuasive arrangement of discourse depends on the speaker, the speaker’s purpose, the setting or situation, the characteristics of the speaker’s audience, and the audience’s purpose, desire, or motivation. As a starting point, the classical rhetoricians developed a complex paradigm for arguments that still is applied in court rules for trial and appellate briefs: Exordium (introduction or statement of the issues presented), Narratio (statement of the case), Partitio

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40. See CORBETT & CONNORS, supra note 5, at 20; Berger, Law as Rhetoric, supra note 6, at 50; Frost, Lost Heritage, supra note 30, at 618-19; Frost, Greco-Roman Legal Analysis, supra note 30, at 123-27.

41. See CORBETT & CONNORS, supra note 5, at 20; MICHAEL H. FROST, INTRODUCTION TO CLASSICAL LEGAL RHETORIC 4, 34, 35 (2005) [hereinafter FROST, CLASSICAL LEGAL RHETORIC]; Berger, Law as Rhetoric, supra note 6, at 50.

42. E.g., SUP. CT. R. 14, 24; see FROST, CLASSICAL LEGAL RHETORIC, supra note 41, at 45; Berger, Law as Rhetoric, supra note 6, at 50.
(summary of the argument), Confirmatio (argument), and Peroratio (conclusion).43

As with the other canons of rhetoric, arrangement is considered to be of high importance to the persuasiveness of the discourse. Sloppy, disorderly, or impenetrable arrangements defeat access to the demonstration of the workings of the argument, deny falsifiability, distract the audience’s attention from the communication of the discourse, and deflate the audience’s reception and reaction to the argument. All of this prevents persuasion.

As with the topic of invention, arrangement operates through the two previously mentioned modes of logos-oriented communication and persuasion: the entechnic pisteis (Artistic) Modes and the atechnin pisteis or (Non-Artistic) Modes. Put simply, artistic modes of invention or arrangement are created (drafted, composed, or imagined) by the author, while non-artistic modes are not created by the author, but are found or identified by the author and employed in the discourse in furtherance of the author’s goals. Mathematical and scientific methods of invention and arrangement are found in both artistic and non-artistic modes of logos-oriented communication and persuasion.

3. THE ENTECHNIC PISTEIS (ARTISTIC) MODES OF LOGOS IN MATHEMATICAL AND SCIENTIFIC METHODS OF INVENTION AND ARRANGEMENT

Mathematics and science already tread the logos pathway to persuasive discourse through the logical deductive structure of the syllogism44 and the logical inductive structure of the

43. See Frost, CLASSICAL LEGAL RHETORIC, supra note 41, at 45. The dispositio of the argument also may contain refutatio, the making and meeting of counter-arguments. In De Inventione, Cicero named six parts: exordium, narratio, partitio, confirmatio, reprehensio (refutation, counter-argumentation), and conclusio (conclusion). MARCUS TULLIUS CICERO, DE INVENTIONE Sec. 1.19 at 41 (H.M. Hubbell trans., 1949) [hereinafter CICERO, DE INVENTIONE]. The Rhetorica ad Herennium names six parts of dispositio: exordium, narratio, divisio (summary, breakdown of arguments), confirmatio, confutatio (counter-argumentation), and conclusio. CICERO, RHETORICA AD HERENNIIUM § 1.3 (H. Caplan trans., Harv. U. Press 1954). See Russ Ver Steeg & Nina Barclay, Rhetoric and Law in Ovid’s Orpheus, 15 J. L. & LITERATURE 395, 409-10 n.71, 413 (2003).

44. Deductive reasoning is the process of formation of a major premise or general proposition and moving to the analysis of a minor premise or specific proposition so as to draw a conclusion. John W. Cooley, A Classical Approach to Mediation–Part I: Classical Rhetoric and the Art of Persuasion in Mediation, 19 U. DAYTON L. REV. 85,
example. The same forms may be used in invention and arrangement in rhetoric to construct meaning and to respond to the expectations of the legal writing discourse community.

The syllogism and enthymeme (deductive forms) and the
induction and example (inductive forms) are topoi of arrangement in science, mathematics, and rhetorical demonstration. By borrowing the structure of mathematics and science, legal discourse can engage in open demonstration of the reasoning process in a form that is recognized as authoritative and persuasive. The structure of the argument takes the form of logical, scientific deduction and induction to prove the proposition. Focusing on the rhetoric-2 and rhetoric-3 uses of

167, 168 n.6 (2002); Steven D. Jamar, Aristotle Teaches Persuasion: The Psychic Connection, 8 SCRIBES J. LEGAL WRITING 61, 77, 80, 81-84 (2001-2002). In other words, truth with absolute certainty is not required, only probability of truth. CORBETT & CONNORS, supra note 5, at 53-54. Similarly, the minor premise must be most probably true, not absolutely, necessarily true. CORBETT & CONNORS, supra note 5, at 53-54. Corbett and Connor’s definition of enthymeme in the Aristotelian sense is more appropriate for the evaluation of legal discourse than the more limited definition of an enthymeme as a truncated syllogism where one of the premises, usually the major premise, is implicit and unstated. Accord EUGENE E. RYAN, ARISTOTLE’S THEORY OF RHETORICAL ARGUMENTATION 29-34, 36, 38-41 (1984); JAMES A. GARDNER, LEGAL ARGUMENT: THE STRUCTURE AND LANGUAGE OF EFFECTIVE ADVOCACY 4-5, 8, 37-38 (1993). As these authors point out, the implicit major premise is one potential aspect of an enthymeme that would differentiate it from a true syllogism, but it is not a requirement of every enthymeme. This produces a conclusion that also is most probably true, but this is acceptable because the enthymeme’s purpose is to persuade, not to establish or define a proposition as a matter of scientific proof. CORBETT & CONNORS, supra note 5, at 53. See Frost, Greco-Roman Legal Analysis, supra note 30, at 110.

48. In daily life, and particularly in the law, a rhetorician infrequently can state an induction with as much certainty as the above example. Aristotle anticipates this when he differentiates a rhetorical induction (an “example”) from a true induction. See Scharffs, supra note 45, at 752 n.58. In an example, as in an enthymeme, the propositions induced by a representative sampling of species of situations (cases or precedents) are asserted to be true to a high degree of probability, not certainty. See ARISTOTLE, THE RHETORIC, bk. I, ch. 2, at 1356b, bk. II, ch. 19, at 1392(a)-1392(b).

49. The structural form of pure logic and scientific or mathematical proof is the syllogism, while the structural form of rhetorical demonstration and legal argument is the enthymeme. See ARISTOTLE, THE RHETORIC, bk. I, ch. 1, at 1355a. In an enthymeme, a highly probable construction of the applicable legal principles is applied to a highly probable construction of the specific circumstances of the case at hand, so as to describe a highly probable conclusion or prediction about the application. Id. at bk. I, ch. 1, at 1356b.


51. GEORGE PÓLYA, INDUCTION AND ANALOGY IN MATHEMATICS: VOLUME I OF MATHEMATICS AND PLAUSIBLE REASONING v-vi (1954); Donald N. McCloskey, The Rhetoric of Law and Economics, 86 MICH. L. REV. 752, 752, 763 (1988). The pros and cons of this rhetorical imperative are a lively topic of debate, and one that is growing
mathematical forms and structure, this structure of argumentation is readily identifiable by audiences, and communicates a proper logical structure to support the discourse (rhetoric-2) as well as demonstrating internally consistent work of a competent author (rhetoric-3).

Induction can inform the major premise of the deductive structure—the process of development of the rules or standards through the process of rule synthesis52 and explanatory synthesis.53 The deductive structure of the syllogism and


52. Rule synthesis is an inductive synthesis of authorities—including, but not limited to, judicial opinions—found to be on point and controlling of a legal question in order to accurately determine and state the prevailing rule of law that governs the issue. Authorities that control the disposition of a legal issue must be reconciled for their explicit statements and pronouncements of the governing legal standards as well as examined for implicit requirements that are governed by the controlling authorities. See, e.g., MURRAY & DESANCTIS, LEGAL WRITING AND ANALYSIS, supra note 44, at chs. 2, 5, 6; MICHAEL D. MURRAY & CHRISTY H. DE SANCTIS, ADVANCED LEGAL WRITING AND ORAL ADVOCACY: TRIALS, APPEALS AND MOOT COURT Appx. (2009) [hereinafter MURRAY & DE SANCTIS, ADVANCED LEGAL WRITING]; RICHARD K. NEUMANN, JR., LEGAL REASONING AND LEGAL WRITING chs. 10-13 (5th ed. 2005); DEBORAH A. SCHMEDEMANN & CHRISTINA L. KUNZ, SYNTHESES: LEGAL READING, REASONING, AND WRITING chs. 4, 6, 9 (3d ed. 2007); HELENE S. SHAPO, ELIZABETH FAJANS & MARILYN R. WALTER, WRITING AND ANALYSIS IN THE LAW ch. 2(IV), ch. 5(III) (4th ed. 2003); Michael D. Murray, Rule Synthesis and Explanatory Synthesis: A Socratic Dialogue Between IREAC and TREAT, 8 LEGAL COMM. & RHETORIC 217, 226-29 (2011) [hereinafter Murray, Rule Synthesis and Explanatory Synthesis]; Terrill Pollman, Building a Tower of Babel or Building a Discipline? Talking About Legal Writing, 85 MARQ. L. REV. 887, 909-10 (2002). Legal analysis employs synthesis of the rules to make a single coherent statement of the applicable legal principles that govern the legal issue at hand, and this becomes the “R” (Rule) section of the discourse, or the first half of the major premise of the legal reasoning syllogism. MURRAY & DE SANCTIS, LEGAL WRITING AND ANALYSIS, supra note 44, at chs. 2, 5, 6; Michael D. Murray, For the Love of Parentheticals – The Story of Parenthetical Usage in Synthesis, Rhetoric, Economics, and Narrative Reasoning, 38 U. DAYTON L. REV. (forthcoming, Winter 2013) [hereinafter Murray, Parentheticals], available at http://ssrn.com/abstract=2137417.

53. Explanatory synthesis, as distinguished from rule synthesis, is a separate process of induction of principles of interpretation and application concerning the prevailing rules governing a legal issue. The induction is from samples—principally case law—representing specific situations with concrete facts and in which the legal rules have been applied to produce a concrete outcome. While rule synthesis is the component of legal analysis that determines what legal standards apply to and control a legal issue, explanatory synthesis seeks to demonstrate and communicate how these legal standards work in various situations relevant to the legal issue at hand. Explanatory synthesis is a qualitative method of analysis of legal authorities,
enthymeme provides the framework for each of the organizational paradigms of legal discourse, including IRAC, IREAC, and TREAT.54 The rhetorical logos structures of law and economics are a highly recommended form for persuasive discourse under modern argument theory and the contemporary rhetoric theory of discourse communities.55 This use of mathematical structure creates meaning and communicates persuasive discourse to each possible audience through level 1, 2, and 3 rhetoric.

4. **THE ATECHNIC PISTEIS OR (NON-ARTISTIC) MODES OF INVENTION AND ARRANGEMENT OF MATHEMATICS AND SCIENCE**

Mathematics and science play a direct role in contemporary legal analysis of facts and data, statistics and reports, documents and contracts, sworn testimony (including expert testimony), interviews, polls, and surveys. In short, we have come a long way in the proper presentation of the *atechnic pisteis*, or non-artistic,
modes of invention. In many areas of law—e.g., antitrust law, tax law, securities law, and the calculation of damages in almost every area of contract, tort, and property law—mathematical analysis informs or constructs the substantive elements of the action—collusive effect, price manipulation, gains or losses, or damages. In addition, at the level of rhetoric-2, the use of scientific and mathematical tools as topoi for persuasion regarding the proof or establishment of elements of the case—e.g., surveys, statistical and quantitative analyses of empirical data, diagrammatical demonstration, and four-quadrant tabular presentation of data—is a well-established method of persuasion. In both categories (the direct proof of damages or an element of the case, or the persuasive ordering and presentation of evidence), the use of science and mathematics is substantive, but it is also rhetorical because it is employed as a language to convince the reader that the evidence is reliable or that the proposition is proved.56

As the chart on the following page demonstrates, the use of such methods of persuasion has grown over the years.57

56. See Levine & Saunders, Thinking Like a Rhetor, supra note 29, at 118-21; Simpson & Selden, supra note 29, at 1011. See also THOMAS M. CONLEY, RHETORIC IN THE EUROPEAN TRADITION 280 (1990).

57. Westlaw search “SHOWN DEPICT! DISPLAY! PICTURED REFER! /4 FIGURE GRAPH! CHART TABULAR” with date restrictions for each decade, e.g., date(>1999) & date(<2010), in ALLCASES and JLR databases.
This chart reports a single search in each decade for figures, charts, graphics, and tabular material. There is no simple way to control for uses that are proof of elements (such as damages) or ordering of data and information for persuasion (e.g., evidence). However, this chart shows that whatever uses are made of figures, charts, graphs, or tables, those uses are increasing in cases and law review articles over each decade, and markedly so in the last two decades in law review and journal articles.

The artistic and non-artistic modes discussed above use mathematical forms in a substantive manner to communicate meaning and construct knowledge and understanding. The next section discusses stylistic uses of mathematical forms that are not in and of themselves substantive, meaning that the logos-type communication and understanding of the analysis and the potential proof of its conclusions achieved through the use of mathematical or scientific forms is not necessarily the primary reason for employing mathematical or scientific forms in the discourse. Instead, the forms are used for style effects in ways that primarily follow the pathos or ethos pathways of the communication.

5. RHETORIC-3 USES OF MATHEMATICS AND SCIENCE AS A TROPE OF STYLE

Style (Latin elocutio; Greek lexis) pertains to the composition
and wording of the discourse, including grammar, word choice, and figures of speech. In classical rhetoric, figures of speech were divided into schemes (artful deviations from the ordinary arrangements of words), and tropes (creative variations on the meanings of words). Style is dependent on the speaker, the context, the setting, and the audience. The classical rhetoricians made recommendations for dividing discourse into one of three levels of style: the low or plain style for the purpose of teaching the audience (Latin \textit{infinum} or \textit{humile}; Greek \textit{ischnos}), the middle style for the purpose of pleasing the audience (Latin \textit{aequabile} or \textit{mediocre}; Greek \textit{mesos}), and the grand style for the purpose of moving the audience (Latin \textit{supra} or \textit{magniloquens}; Greek \textit{adros}).

The audience and the situation for the discourse are, of course, very important to the analysis of the best arguments that can be raised, so modern argument theory calls for advocates to pay particular attention to the audience and situation of their arguments.

Mathematical forms (charts, diagrams, four-quadrant tables, algebraic formulas) can stimulate thought and imagination, leading to rhetoric-3 appreciation of the persuasiveness of the discourse. The following charts offer examples of this phenomenon.

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62. Smith, \textit{Rhetoric Theory}, supra note 6, at 139.
Example 1:

This chart is intended to report “Ratings Of Challenges Facing Successful Operations Of A Business In Russia (Among Selected Major Brandholders And Trademark Owners Doing Business In Russia).”63 It is offered to demonstrate that intellectual property protection is perceived to be a primary challenge confronting international companies doing business in Russia.64 The methodology is described in the following way:

In the survey, respondents were asked to rate a series of “challenges confronting the successful operations of your business in Russia” using a five-point scale, where one meant “least important” and five meant “most important.” More than one-half (52%) of selected major brandholders and trademark owners doing business in Russia gave a rating of five to intellectual property protection. This ranks intellectual property protection on virtually the same high level of concern as customs (54%) and taxes (52%)—which have historically been perceived as presenting the greatest challenges to business success in Russia.65

Nothing in this chart is particularly mathematical except the fact that the author crunched some numbers to produce the chart, but the demonstration of the data in a bar graph with a superimposed variable line graph makes the presentation all the more

64. Id.
65. Id.
authoritative in a rhetoric-3 sense because it appears that a complicated mathematical formula was applied to data to produce this graph.

Example 2: 66

I consider example 2 to be an excellent use of scientific charting (taking the form of an informational or decisional flow chart) to make a rhetorical-3 point: the procedure for acquiring a firearm in Quebec is too complicated.

66. H. Taylor Buckner, Ph.D., Concordia’s “Gun Control” Petition: Ignorance of the Law is the Only Excuse, TBUCKNER.COM (June 14, 1994), http://www.tbuckner.com/IGNOLAW.HTM.
Example 3: 67

This chart discusses the rise and fall of city names in English language literature, and claims that this Google Lab chart reports the results of a search of city names in the vast amount of literature that Google has scanned and compiled for searching. 68 The chart purports to tell us something about “the relative importance of different centers of power in the public imagination.” 69 The author could have stated quite simply: when searching for Paris, London, New York, Boston, and Rome, in the scanned English literature from 1750 to 2008, interest in London remained steady and at a higher level than Paris, Boston, and Rome, while interest in New York started at a very low point but grew steadily, surpassing London in approximately 1910, and continued to rise in popularity until 1980, when it began a steady decline. This would have accurately stated the purported findings, but the graphing of the information sends a very different rhetoric-3 message—that something scientific was done to produce the results the readers see before them.

Mathematical forms are a persuasive tool; but the tool is only as good as the user, and the user must be careful about proper uses in proper situations. In general legal discourse, the

68. Id.
69. Id.
use of law and economics mathematical and scientific forms and schemes as an artistic or stylistic mode comes with a word of caution that is grounded in the very discipline from which the rhetorical use of such forms is drawn: Contemporary law and economics assumes and advocates the rhetorical primacy of scientific and mathematical methods of analysis in forming hypotheses, designing the methods for testing the hypotheses, and analyzing the data, statistics, and information collected to test the hypotheses.\textsuperscript{70} Law and economics also assumes the rhetorical primacy of scientific and mathematical forms in discourse to openly demonstrate analyses and reveal its theses about human behavior for examination and critique.\textsuperscript{71} The rhetorical power of a mathematical proof or a demonstration of a scientific deduction or induction lies in the openness and transparency of the demonstration. The premises (major and minor) and the nature of the hypothesis induced from the comparison of genus and species of data must be fully disclosed and described so as to allow the presentation to be analyzed and rebutted. The assertions made in reference to the information displayed must be falsifiable. Tautological explication (wherein the information is presented as self-evident or self-established, or in simpler terms, that the information is what it is) adds nothing to meaning or understanding and does not contribute to the mode of persuasion that points to truth. Using mathematical forms simply to dazzle or confuse the audience or obfuscate the relevant information pertinent to the issue is the worst form of trickery (\textit{mere rhetoric}, not actual rhetoric). Consider the following chart of the Obama Health Care Reform initiative.\textsuperscript{72}

\begin{itemize}
\end{itemize}
One might imagine that the author of this chart did not intend to make clear the available options offered under the health care reform initiative.

B. RHETORICAL LESSONS IN DEFINING LEGAL PHENOMENA AS INCENTIVES AND COSTS

This section discusses: (1) rhetoric-3 uses of incentives and costs as a trope of style (i.e., a figure of speech using incentives and costs as a metaphor in discourse); and (2) the rhetoric-2 and rhetoric-3 concept of incentives and costs in the organization and presentation of the discourse as a topic of invention and arrangement (i.e., the structure and composition of the discourse and whether it creates incentives or imposes costs on the reader).

1. INCENTIVES AND COSTS AS A RHETORIC-3 TROPE OF STYLE

Economics and behavioral science informs legal discourse and communication by pointing out that people respond to incentives. Contemporary law and economics, informed by the lessons of behavioral science, offers a rhetorical perspective on legal discourse and communication because the study of persuasion in legal communication involves an analysis of what
an author (speaker, writer, communicator) can do to create incentives to attract or motivate the reader (listener, etc.) while avoiding imposing costs on the reader.

A trope is “a deviation from the ordinary and principal signification of a word.”73 Metaphor is a trope of style in rhetoric, one of the figures of speech described and applied within the canon of style.74 Metaphor is one of the “master tropes,” the others being metonymy, synecdoche, and irony.75 Numerous disciplines have studied the power of metaphor in discourse, including linguistics, philosophy, rhetoric, cognitive psychology, and literary theory.76 Recent literary and cognitive studies of

74.  Professor Stephanie A. Gore defines a metaphor as follows:
A “metaphor” is defined as a “figure of speech in which a word or phrase that ordinarily designates one thing is used to designate another, thus making an implicit comparison.” THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE (4th ed. 2000). A metaphor may also be defined as “an implied analogy imaginatively identifying one object with another and ascribing to the first object one or more of the qualities of the second.” C. HUGH HOLMAN & WILLIAM HARMON, A HANDBOOK TO LITERATURE 298 (5th ed. 1986). The Princeton Encyclopedia of Poetry and Poetics elegantly defines metaphor as “[a] condensed verbal relation in which an idea, image, or symbol may, by the presence of one or more other ideas, images, or symbols, be enhanced in vividness, complexity, or breadth of implication.” PRINCETON ENCYCLOPEDIA OF POETRY AND POETICS 490 (Ales Preminger ed., enlarged ed. 1974).
75.  BURKE, GRAMMAR OF MOTIVES, appx. D (1945). Burke described the master tropes as follows: “For metaphor we could substitute perspective; for metonymy we could substitute reduction; for synecdoche we could substitute representation; for irony we could substitute dialectic.” Id.
metaphor\textsuperscript{77} have shown that:

Literary analysis and cognitive psychology theory analyze the use and effect of metaphors in ways that resemble the techniques of their Greco-Roman counterparts. In some recent discussions of metaphors’ place in legal discourse, analysts reject the view that metaphors are merely superficial stylistic devices. They assert, with Haig Bosmajian, that “it is now well established that the tropes, especially the metaphor, are not simply rhetorical flourishes used to embellish discourse.”\textsuperscript{78} Instead, these analysts maintain that metaphors are essential devices for achieving certain sorts of intellectual insights. Classical rhetoricians recognized that metaphors provide insights or “fresh knowledge”\textsuperscript{79} that can “scarcely be conveyed”\textsuperscript{80} by other means. Under this view, metaphors become important intellectual components of legal analysis rather than mere mnemonic or focusing devices.\textsuperscript{81}

Nevertheless, Judge Cardozo warned that “[m]etaphors in law are to be narrowly watched, for starting as devices to liberate thought, they end often by enslaving it.”\textsuperscript{82}


\textsuperscript{77} E.g., Frost, \textit{Greco-Roman Metaphor, supra} note 76, at 113, 135-38.

\textsuperscript{78} Id. at 135 (citing Haig Bosmajian, \textit{Metaphor and Reason in Judicial Opinions} 441 (1992)). \textit{See also} Haig Bosmajian, \textit{The Judiciary’s Use of Metaphors, Metonymies and Other Tropes to Give First Amendment Protection to Students and Teachers}, 15 \textsc{J.L. & Educ.} 438 (1986).

\textsuperscript{79} Frost, \textit{Greco-Roman Metaphor, supra} note 76, at 136 (citing Aristotle, \textit{The Rhetoric, supra} note 9, at 206).

\textsuperscript{80} Id. (citing Marcus Tullius Cicero, \textit{De Oratore} 123 (E.W. Sutton trans., 1942)).

\textsuperscript{81} Id. at 135-37.

\textsuperscript{82} Berkey v. Third Ave. Ry. Co., 244 N.Y. 84, 94, 155 N.E. 58, 61 (1926). Thus,
The rhetorical path that uses incentives and costs as a metaphor for conditions and effects in the law is a well-traveled path in legal discourse. Every time an author writes about a cost-benefit analysis, the use of the term “cost” stands in as a metaphor, a rhetorical trope that attempts to transfer the concept of a cost onto the understanding of the actual action or condition described. The word “benefit” similarly stands in to communicate a beneficial meaning to the reader concerning the actual effect or change in condition discussed in the discourse. Every time a change in the law is said to “incentivize” certain conduct, the concept of “incentive” is a metaphor for the intention of the actor to motivate a certain reaction by offering something desired by the recipient. Every time a license or permit application process is said to provide a “disincentive” to an activity, the term “disincentive” is used to convey the negative effects of the condition described in the discourse. Every time a change in procedural rules is said to impose an “externality” on the cost of litigation, the author uses “externality” as a figure of speech to suggest that the law imposes a cost that is not internalized by one or more of the parties in the discussion. This is, in fact, a metaphor within a metaphor—both “cost” and “internalize” are used metaphorically in this example.

By using the terms “incentives” and “costs” metaphorically, legal authors can discuss laws and legal conditions as incentives or costs in contexts that are not necessarily business or contract settings or do not involve the calculation of pecuniary sums or damages. This expansion in language may improve

Judge Cardozo used a metaphor (liberation or enslavement of thought) to criticize the use of metaphors in law.

83. Note the metaphor I am using here. Metaphors are unavoidable in legal discourse.

84. In many areas of law (specific examples being antitrust, taxation, and securities law, as well as the calculation of damages in almost every area of law), mathematical analysis informs or constructs the substantive element of the action—collusive effect, price manipulation, gains or losses, or damages. In addition, at the rhetoric-2 level, the use of scientific and mathematical tools as _topoi_ for persuasion regarding the proof or establishment of elements of the case—e.g., surveys, statistical and quantitative analyses of empirical data, diagrammatical demonstration, and four-quadrant tabular presentation of data—is a well-established method of persuasion. In both categories, the direct proof of damages or an element of the case, or the persuasive ordering and presentation of evidence, the use is substantive, but it is employed in a language to convince the reader of the evidence or proof of the proposition, and thus is rhetorical. See, e.g., Donald N. McCloskey, _The Rhetoric of Economics_ 92 (1985); Leonard R. Jaffee, _Of Probativity and Probability: Statistics, Scientific Evidence, and the Calculus of Chance at Trial_, 46 U. Pitt. L.
communication—the enlightening aspect of metaphor in discourse. Of course, with regard to proper ethos, the recommendation to use metaphor in rhetoric-3 applications comes with Judge Cardozo’s highly metaphorical warning not to let the metaphor enslave the reader’s thinking on the topic.

2. **Rhetoric-2 and Rhetoric-3 Incentives and Costs of Organization and Presentation of the Discourse as Topics of Invention and Arrangement**

The economic, rhetorical use of incentives and costs also has rhetoric-2 and rhetoric-3 application in the organization and presentation of the discourse as topics of invention and arrangement (i.e., the structure and composition of the discourse and whether it creates incentives or imposes costs on the reader). Contemporary law and economics informs contemporary rhetorical studies of invention, arrangement, and style, adding to the knowledge base of studies of writing as a process and discourse community theory. The rhetorical perspective of economics and behavioral science informs the study and understanding of effective legal communication by demonstrating the means by which an author can create incentives to attract or motivate the reader while avoiding imposing costs on the reader. For example, authors can create incentives in legal communication and avoid transaction costs by making compositional choices through the use of a helpful, reader-oriented, organizational paradigm such as the TREAT paradigm. Authors can create incentives and avoid costs in legal communication by organizing the contents of communications into a rule formation (rule section) and a separate explanation of how the rule works (explanation section). Authors can create incentives and impose costs in legal communication by using explanatory synthesis to synthesize the work of authorities used to demonstrate both the legal rules that govern the issue and how those legal rules work in actual, concrete situations.

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85. Murray & Desanctis, Legal Writing and Analysis, supra note 44, at ch. 6.
86. Id.
C. RHETORICAL USE OF EFFICIENCY IN LEGAL DISCOURSE

As specifically applied to the rhetorical canons of invention, arrangement, and style, the rhetorical perspective of economics and behavioral science can inform the discussion by demonstrating that efficiency supports the persuasiveness of legal discourse.

1. RHETORIC-3 USE OF EFFICIENCY IN INVENTION AND CREATION OF MEANING

Economic or productive efficiency is the application of the term “efficiency” that is best known to non-economists. The advice for legal authors seeking rhetoric-3 recognition of the meaning of the term when used outside of strict economic analysis is to use the term “efficiency” or “efficient” to refer to an avoidance of waste, a reduction in costs (transaction costs, collateral costs, or externalities), or other savings in time or money that have been or would be brought about by a change in the law. Saving money or time is nearly universally valued as a goal in life and in the law. Emphasis of efficiency—the phrasing and defining of elements of the circumstance in terms of efficiency in the time or cost saving sense—is rhetorically valuable.

2. RHETORIC-2 AND RHETORIC-3 EFFICIENCY IN ARRANGEMENT AND STYLE

Law and economics advocates elegance and efficiency in the form, structure, and composition of economic discourse. This lesson from the canons of law and economics teaches legal authors to follow a prescription to make their discourses clear, concise, succinct, and elegant in form. The formal use of the term “efficiency” benefits clarity and promotes comprehension of meaning over confusion and frustration. It opens doors to falsifiability because the material is more accessible for analysis and criticism if it is clear and succinct. The door to falsifiability is closed by complexity, density, prolixity, and obfuscation in legal discourse. Falsifiable assertions that are not rebutted are highly persuasive.

D. RHETORICAL LESSONS FROM CONTEMPORARY RATIONAL CHOICE THEORY

The lessons for rhetorical discourse using the definition of rational choice in contemporary law and economics have become
more complicated as our understanding of human behavior grows, but the consequences of the contemporary theories of rational choice ultimately coincide with lessons learned from classical rhetoric and modern studies of cognition and brain science. Discussed below are the rhetorical lessons of contemporary rational choice theory in three areas: (1) rhetoric-1 framing of legal issues to respond to biases and heuristics and to situational conditions on rational choice as a mode of invention and arrangement; (2) rhetoric-2 topics of arrangement and invention (synthesis and syllogistic structure) to appeal to the rational audience; and (3) rhetoric-3 uses of pathos-centric modes of argument—metaphor, parable/mythical/fable forms, character archetypes, and other forms of narrative reasoning—as topics of invention and tropes of style to address anchoring, endowment effects, and other heuristics and biases of legal audiences based on the lessons of pathos from modern cognitive studies and brain science.

1. **THE RHETORIC-1 IMPORTANCE OF FRAMING IN INVENTION AND ARRANGEMENT**

   It is challenging to manage the modeling and framing of broad concepts such as fairness and justice in economic theory, but the rhetorical implications of the empirical observations in law and economics, cognitive studies, and brain science reveal that people respond to justice and fairness in legal discourse. These studies confirm what the advocates of the simultaneous use of the modes of persuasion of logos, ethos, and pathos have predicted: that arguments framed from a more general perspective of how the laws and the public policies behind the laws support the arguments are a necessary part of legal discourse, and that a legal author can draw on narrative theory to further the communication through pathos that implicates the values and emotional appeal of the discourse as communicated to the audience.

   Other theories developed through empirical testing of rational choice biases and heuristics with a predictable effect on decision-making—such as the endowment effect, the status quo bias, and risk/loss aversion—can be used to frame arguments. For example, there are two lessons to be learned from the experiments of behavioral science: (1) the experiments indicate that framing of choice matters because decision-making is
context-based, and (2) the experiments indicate that the endowment effect or status quo bias plays a strong role in contract negotiation. These two lessons can be combined to create a rhetorical prescription for advocates: advocates should work to carefully and advantageously define the starting point terms of a negotiation (which will, as indicated by the experiments, be perceived and responded to as the status quo) or the status of the current law from which the tribunal must move forward to adjudicate the client’s matter (which, again, will be perceived as the status quo), and simultaneously work to frame the choices of departure in such a way that the preferred outcome for a client is framed as an appropriate compromise choice—not the most extreme or most expensive departure from the status quo starting positions (as defined by the advocate), but not the smallest departure either.

2. **Rhetoric-1 and Rhetoric-2 Logos Topics of Arrangement and Invention (Inductive Synthesis and Syllogistic Structures) for the Rational Audience (the Legal Writing Discourse Community)**

The overall structure of legal discourse, both in terms of invention and arrangement, should be drafted with regard to the logos topics of syllogistic structure and inductive synthesis. The rhetoric-1 audience of legal discourse is made up of legally-trained readers—the legal writing discourse community. The expectations of this group manifestly support using a logical syllogistic structure for the overall architecture of the discourse, and the Anglo-American theory of precedent and stare decisis support the inductive structure of a synthesis of authorities to determine the legal standards governing an issue. The lessons of modern cognitive studies and brain science that challenge many of the assumptions, premises, and paradigms of traditional rational choice theory in law and economics do not wipe the slate

90. Id. at 136.
91. Id. at 137.
92. Kelman, Rottenstreich, & Tversky, supra note 88, at 74-76.
clean from the expectations of the legal writing discourse community and its basic conventions for organization and demonstration. Even if indirect audiences are contemplated, in rhetoric-2 persuasion, the logical syllogistic structure is a widely accepted method of demonstration. If used properly with appropriate attention to the ethos of the discussion, the structure opens up the premises and evidence of the discussion to examination, potential criticism, and rebuttal. A proper synthesis identifies the species that are examined as well as the newly identified genus principles that are induced from the species, or it identifies the existing genus principles that are applied to the newly identified species of the genus, depending on which side of the induction the discussion falls. In short, in invention and arrangement, there is no ready substitute for the logical syllogistic structure of legal discourse and the inductive structure of synthesis.

3. RHETORIC-3 RATIONAL CHOICE LESSONS CONCERNING PATHOS-BASED MODES OF PERSUASION TO ADDRESS COGNITIVE AND SITUATIONAL EFFECTS ON DECISION-MAKING

A significant part of contemporary law and economics’ rational choice theory is under examination to challenge the assertion that legal decision-makers are autonomous individuals weighing costs and benefits in individualistic terms, unaffected by context and situation. Under the traditional and still prevailing doctrine of rational choice, rational decision-making should not be affected by situation, meaning that choices that maximize the decision-makers’ ends should not be affected by situation. The values and interests implicated by a choice may be different from individual to individual, but, once identified, the choices made in recognition of the same values and interests should not change from situation to situation. Cognitive studies and brain science on situational decision-making take the opposite position based on empirical evidence and argue that decisions are affected by biases and heuristics that are connected to the context and situation of the decision-making.93

Cognitive studies and brain science have worked a similar correction in contemporary rhetoric’s modern argument theory: the assumptions and premises of classical and traditional theories of rhetoric regarding audience have been refined by modern social science and cognitive studies that redefine the concept of the rhetorical situation in a way that affects every part of persuasive discourse—the audience, the message, and the speaker.\textsuperscript{94} The lessons learned in both contemporary law and economics and contemporary rhetoric can inform both disciplines to improve theories, predictions, and prescriptions about changes in economic analysis of law and legal discourse.

Situational decision-making often implicates the different values that people assign to different choices depending on the context and situation in which the decision is to be made,\textsuperscript{95} and a rhetorical examination of values leads to the analysis of \textit{pathos}\textsuperscript{96}—the emotional response to persuasive discourse\textsuperscript{97}—

\textsuperscript{94} See, e.g., MAKAY, SPEAKING WITH AN AUDIENCE, supra note 9, at 9; ROBBINS-TISCIONE, RHETORIC FOR LEGAL WRITERS, supra note 9, at 9; Bitzer, \textit{The Rhetorical Situation}, supra note 23, at 6-8; White, \textit{Law as Rhetoric}, supra note 8, at 695; Wetlaufer, \textit{Rhetoric and Its Denial}, supra note 9, at 1546.


\textsuperscript{96} Pathos is one of the three artistic \textit{topoi} of invention—an essential mode of persuasion in classical rhetoric. See ENCYCLOPEDIA OF RHETORIC 99 (Thomas O. Sloan ed., 2001); Robert F. Blomquist, \textit{Dissent Posner-Style: Judge Richard A. Posner’s First Decade of Dissenting Opinions, 1981-1991—Toward an Aesthetics of Judicial Dissenting Style}, 69 MO. L. REV. 73, 158 (2004). Quintilian put great stock in emotional appeals, Frost, \textit{Ethos, Pathos & Legal Audience}, supra note 20, at 91, claiming that, “this emotional power . . . dominates the court[;] it is this form of eloquence that is queen of all.” 2 QUINTILIAN, INSTITUTIO ORATORIA, supra note 20, at 419. Quintilian, like Aristotle, thought that “the duty of the [advocate] is not merely to instruct: the power of eloquence is greatest in emotional appeals.” \textit{Id.} at 139; see Frost, \textit{Ethos, Pathos & Legal Audience}, supra note 20, at 91. Over-reliance on the logos, the logical presentation, of an argument may be a myopic tendency of lawyers, but it is likewise clear that pathos cannot be controlled directly by legal argument. CORBETT & CONNORS, supra note 5, at 78. See also Kenneth D. Chestek, \textit{Judging by the Numbers: An Empirical Study of the Power of Story}, 7 J. ASSN LEGAL WRITING DIRECTORS 1, 3, 5, 29-30 (2010) (detailing an empirical study of the persuasiveness of logos-centric versus pathos-centric briefs). The classical rhetoricians recognized that our emotions are not entirely under the control of our will and our intellect. CORBETT & CONNORS, supra note 5, at 78. We cannot use...
because values in contemporary brain science appear to be the most important trigger of emotional conviction. Contemporary rhetoric encompasses examination and consideration of the values, passions, and biases of the audience in its study of the use of practical reasoning and informal logic, narrative reasoning to argue an audience into an emotional state any more than we can will ourselves into an emotional reaction based on an intellectual conviction that we should have a certain emotional reaction to a certain set of facts or a particular logical appeal. See id. An advocate that explicitly announces that he or she will play on the audience’s emotions in the presentation of the discourse will inevitably achieve the opposite result; the audience, made wary of emotional manipulation, will, at best, steel themselves not to be manipulated, and, at worst, will discount the advocate’s presentation on the grounds that the advocate has engaged in trickery and subterfuge. See id. at 78-79. Thus, the advocate must not openly play upon the audience’s heart strings, but instead must carefully and subtly arrange the facts and narrative reasoning of the case in conjunction with the logic and legal reasoning of the argument. See id.; Chestek, supra note 96, at 2, 3, 5, 29-32; Frost, Ethos, Pathos & Legal Audience, supra note 20, at 94.


Damasio describes the brain process of somatic marking, which is used to evaluate experience of the world, tagging certain facts as useful and valuable toward an objective, and rejecting many others. In decision-making, such as the task of jurors, the process involves the somatic marking of evidence for its salience toward the decision, winnowing down the possible choices and their consequences based on the somatic marker (loosely characterized as a “gut feeling”) assigned to the evidence. (Contemporary legal economists and behavioral scientists would characterize this as the application of affect heuristics.) E.g., Melissa L. Finucane et al., The Affect Heuristic in Judgments of Risks and Benefits, 13 J. BEHAV. DECISION MAKING 1, 2 (2000). Jurors then seek a narrative that makes sense fitting the marked evidence into a coherent, lifelike, believable story. Jurors can supply their own narrative, or the advocate can supply a lifelike, believable storyline that fits the facts (and assists the client), which emphasizes the need for storytelling as a tool of narrative reasoning in legal discourse. See generally DAMASIO, DESCARTES’ ERROR, supra note 98, at 170-75; Todd E. Pettys, The Emotional Juror, 76 FORDHAM L. REV. 1609, 1628, 1631-33 (2007).
(and its many sub-categories—storytelling, mythical forms, parable forms, hero-antihero archetypes), and the schemes and tropes of composition in analogical and literary forms (e.g., schemes and figures of speech, metaphor theory, and literary allusion).  

Contemporary law and economics describes the same type of phenomena as biases and heuristics—anchoring, status quo bias, endowment effect bias, risk/loss aversion, representativeness heuristic, availability heuristic, and probability assessment dysfunctionality.  

Contemporary rhetoric applies cognitive studies and brain science to inform the predictions of audience reaction and motivation produced by the use of certain topics of invention or tropes of style.

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101. For example, the evaluation of the use of metaphor as a method of pathos-based persuasion and transmission of meaning has caused rhetoricians to look to social science and cognitive studies to study the effects of metaphor in communication. E.g., OWEN BARFIELD, POETIC DICTION: A STUDY IN MEANING 63-64 (1964); Haig Bosmajian, Metaphor and Reason in Judicial Opinions 152 (1992); JAMES B. WHITE, THE LEGAL IMAGINATION: STUDIES IN THE NATURE OF LEGAL THOUGHT AND EXPRESSION 695, 707 (1973); Haig Bosmajian, The Judiciary’s Use of Metaphors, Metonymies and Other Tropes to Give First Amendment Protection to Students and Teachers, 15 J. L. & EDUC. 445 (1986); Frost, Greco-Roman Metaphor, supra note 76, at 135-38; Burr Henly, "Penumbra": The Roots of a Legal Metaphor, 15 HASTINGS CONST. L.Q. 81 (1987); Edward L. Murray, The Phenomenon of the Metaphor: Some Theoretical Considerations, 2 DUQ. STUD. IN PHENOMENOLOGICAL PSYCHOL. 288 (A. Giorgi, C. Fischer & E. Murray eds., 1975); Steven L. Winter, Death is the Mother of Metaphor, 105 HARV. L. REV. 745, 759 (1992) (reviewing
same way that contemporary law and economics looks to
cognitive studies and brain science for the same lessons in
audience reaction and motivation.102

There are two rhetorical lessons to be drawn from this
observation. First, a single rhetorical approach to discourse may
miss the audience and fall short of the rhetorical situation.
Discourse should be crafted in layers, and by this I do not simply
mean the rhetoric-1, -2, or -3 levels pertaining to different
audiences, but rather the use of multiple layers using different
modes of persuasion directed toward the same audience for the
same level of rhetorical communication. Second, a writer should
consider pathos-based modes of persuasion, such as narrative
theory and storytelling modes, to target the values of the
audience in the situation and present a discourse that the
audience will identify and accept. In many instances, the writer
should not use pathos as the sole mode of persuasion, but should
consider it as one layer in the communication.

V. CONCLUSION

Law and economics is a fascinating school of contemporary
legal rhetoric. The particular combination of modes of persuasion
found in this rhetoric commands attention in two ways: by the
success with which the rhetoric of law and economics has
influenced the legal academy, and by the success with which it
has influenced American economic and financial policy in ways
that are now criticized after the experience of the Great
Recession. The former observation indicates the persuasive
power of this rhetoric—the elegance of mathematical formulas
used to demonstrate a theory of rational choice that allows laws
and regulations to be defined in tropes of incentives and costs so
as to justify what the legal economists have conceived of as
efficient results. This persuasive power has outshined many

(1991)).

102. Most, if not all, of the sources on behavioral law and economics indicate a
trend toward incorporating cognitive studies, and the most cutting edge of these
sources point toward new ways of understanding incentives and motivation through
brain science. See, e.g., John N. Drobak & Douglass C. North, Understanding
Judicial Decision-Making: The Importance of Constraints on Non-Rational
Deliberations, 26 WASH. U. J. L. & POL’Y 131 (2008); Terrence Chorvat, Kevin
McCabe, & Vernon Smith, Law and Neuroeconomics, 13 SUP. CT. ECON. REV. 35
(2005); Anne C. Dailey, The Hidden Economy of the Unconscious, 74 CHI.-KENT L.
REV. 1599 (2000).
other schools of analysis within the legal academy. The latter, post-Great Recession observation indicates that the theories and assumptions of neoclassical law and economics—the efficiency of unregulated markets, the near-religious-like devotion to a hyper-simplified conception of rationality and self-interest with regard to the persons and institutions participating in the financial system, and a conception of laws and government policies as incentives and costs in a manner that excludes the actual externalities and complications of reality—not only force scholars to cast doubt on the economic and financial prescriptions and recommendations of neoclassical law and economics but also force attention to the reasons why the rhetoric could be used for such wrongs.

I have written this Article to answer the question posed by the paradox of the success of the rhetoric of law and economics and the failure of law and economics’ economic and financial theories in the Great Recession. In and of themselves, the topics of invention and arrangement and the tropes of style of law and economics are neither right or wrong, nor ethical or unethical. The evaluation is determined by the author’s motive. The forms can be used in a rhetorical communicative and persuasive sense to inspire imagination so as to further the understanding and persuasion of the audience within the rhetorical situation, or the forms can be used to confuse or to disguise the true issues of the rhetorical situation or the true answers that might address these issues in the service of some other political or economic agenda. Law and economics rhetoric, like all rhetoric in legal discourse, is not moral, immoral, or amoral in and of itself, but it provides tools for authors to carry out their own moral, immoral, or amoral motivations for communication. This observation is particularly important for the topics and tropes of law and economics rhetoric because these topics and tropes often are used to communicate with and persuade audiences at a rhetoric-2 or rhetoric-3 level of communication—in other words, to communicate with and influence audiences who are not themselves experts in economics or even law and economics.

Mathematical forms of invention and arrangement allow reasoning that is open and demonstrative, following logical structures used in mathematics, science, and legal reasoning that allow falsification or verification of the reasoning and the results. As such, these forms are justifiably convincing. They are potentially convincing at any level of rhetorical communication.
However, at a rhetoric-2 or rhetoric-3 level of communication, especially when used as topics of arrangement or tropes of style, mathematical formulas, charts, and diagrams can provide the appearance of careful, calculated analysis that on its face appears to have both scientific logic and certainty, but amounts to no more than dressing up a non-mathematical analysis in the garb of mathematics. If the task is to persuade, such uses for arrangement or style might be used as a cudgel to overwhelm an audience who is unlikely to be able to tease out the assumptions, limitations, and variables that are obscured or confused by such a presentation. The propriety of suggesting mathematical certainty that is not genuine or obscuring the limitations of a line of reasoning through charts and diagrams is questionable and potentially unethical.

The topics and tropes associated with efficiency are on the one hand simplistic and on the other complicated. The topic of arrangement that calls for clear, concise, elegant communication because it is superior to prolix, dense, overly-complicated communication is a fairly safe and uncontroversial topic supported by all schools of contemporary legal rhetoric. On the other hand, the tropes of style that might attempt to carry out definitions extracted from the economic concept of efficiency are very discipline-specific, and do not automatically translate to general legal discourse. Efficient elimination of waste or reduction in costs is a fairly straightforward proposition, but the concepts of Pareto or Kaldor-Hicks efficiency\footnote{See Murray, \textit{Rhetorical Canons of Law and Economics}, supra note 1, at 647 nn.105, 106, 107.} can be counterintuitive and confusing if applied to non-economic topics in law. They can confound understanding and block appropriate persuasion.

With regard to the style tropes of incentives and costs, the law has firmly embraced these metaphors and welcomed them into the language of the law. No one will blush or object to legal communications that purport to incentivize conduct or avoid externalities or tax a certain behavior. The lesson for legal rhetoricians is that it is important to be honest when they make assumptions about what ends will be served by the incentives and rewarded by the avoidance of costs. Economics rhetoric intends to serve the end of efficiency, whichever definition of that concept applies. In other areas of the law, pursuing the ends of efficiency
alone might displace other values that might be preferred, if not left off the table in service of an economic goal.

The lessons of modern cognitive studies, brain science, and behavioral studies point the way to a future general legal rhetoric that understands and targets heuristics and biases in honest, appropriate manners, appealing correctly to the emotions that are implicated by the rhetorical situation because the legal issue at hand implicates the values that drive the emotions. The storytelling movement in law and rhetoric aims to apply those lessons directly in legal discourse. In many ways, the center of gravity of the law and economics movement has progressed beyond the overtly simplistic neoclassical conception of rational choice. It would be anachronistic to continue beating the horse that human behavior is more complicated than the neoclassical conception of “rational equals pursuit of self-interest through wealth-maximization.” Much of contemporary law and economics rhetoric is engaged in learning and applying the lessons of modern cognitive studies, brain science, and behavioral studies so that the assumptions made and the theories developed take into account the lessons of effective communication and persuasion that may be learned from these disciplines.

The Great Recession is the latest and greatest case study to teach us that the topics of invention and arrangement and tropes of style of law and economics have applications in legal discourse beyond the economic analysis of law, but the topics and tropes are subject to abuse and must be used ethically and with careful regard to their propriety as a tool to create meaning and inspire imagination, and not as a tool of deception or obfuscation within the rhetorical situation at hand. This is a lesson for all rhetoricians, those of law and economics and of general legal discourse.