

Perception and Persuasion in Legal Argumentation:  
Using Informal Fallacies and Cognitive Biases to Win  
the War of Words

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## I. INTRODUCTION

When zealously advocating a client's position, the lawyer's ultimate goal is winning. To win, however, the lawyer must convince a judge or jury to accept the lawyer's (and reject opposing counsel's) position. The best type of advocate accomplishes this goal using various rhetorical techniques, attempting to manage other people's perceptions of such things as the facts, the lawyer's own theory of the case, the credibility of eyewitness testimony, the weaknesses of opposing counsel's claims, and the praiseworthiness of the lawyer's own client. By design, we have an adversary system. Roberto Aron and his colleagues characterize litigation quite deftly.

Litigation is not a philosophical discussion. Trial advocacy is always controversial. A trial is a judicial contest between lawyers where a given situation and set of facts are interpreted in various ways by the different parties' lawyers, each counsel trying to persuade the judge or jury that justice is on the side of the client for whom counsel is arguing.<sup>1</sup>

But how does the lawyer successfully convince the fact finder that the lawyer's (and not opposing counsel's) position is aligned with justice? Success inevitably boils down to persuasive legal argumentation.<sup>2</sup> This is because "the advocate's [only] weapons in the courtroom battle are methods, tactics, and strategies, all of which have in common the ultimate goal of *persuasion*."<sup>3</sup> When lawyers do battle in the courtroom, whichever warrior wages war while wisely wielding wittier words without waning will win. Thus, if the lawyer's ultimate goal is winning, the lawyer must master the art of persuasion. For the art of persuasion<sup>4</sup> is intimately connected with the psy-

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1. See ROBERTO ARON ET AL., TRIAL COMMUNICATION SKILLS § 1.14 (2d ed. 2011).

2. BRYAN A. GARNER, GARNER'S DICTIONARY OF LEGAL USAGE 672 (3d ed. 2011) (defining argumentation as "the art of logically setting forth premises and drawing conclusions from them").

3. ARON ET AL., *supra* note 1 (emphasis added).

4. RONALD WAICUKAUSKI, PAUL MARK SANDLER & JOANNE EPPS, THE 12 SECRETS OF PERSUASIVE ARGUMENT, at v (2009) ("The art of persuasion is at the heart of the successful advocate's skill set. . . . The essence that the great advocate adds to fact and law is an assessment of their implications for her client's case, and an understanding of the way that the facts and law support her overall rationale. It is equally important to explain and refute the opposing facts and law. That approach is essential to being an effective lawyer-advocate and to the art of persua-

chological process of perception. And perception is what convinces people whether to accept or reject the lawyer's argument.

In this Comment, I propose an account of legal argumentation that explains the relationship between mental processes that psychologists label *cognitive biases*<sup>5</sup> and legal arguments that philosophers label *informal fallacies*.<sup>6</sup> Cognitive biases are errors in our thinking and reasoning, which alter our perceptions. Informal fallacies are verbal or written arguments containing material flaws, which enhance their persuasiveness.<sup>7</sup> I also describe the process of persuasion at play when the lawyer uses legal arguments that contain informal (material) fallacies. By using legal arguments that contain informal fallacies, the lawyer can play upon the listener's inherent cognitive biases to persuade the listener to see things the same way the lawyer does. When lawyers use these rhetorical techniques—whether before or during trial proceedings—they induce<sup>8</sup> in most listeners erroneous perceptions that can, and often do, powerfully alter their listeners' beliefs.

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sion.”).

5. Cognitive bias generally describes numerous “observer effects” in the mind, which are “desires and expectations people possess [that] influence their perceptions and interpretations of what they observe.” D. Michael Risinger et al., *The Daubert/Kumho Implications of Observer Effects in Forensic Science: Hidden Problems of Expectation and Suggestion*, 90 CALIF. L. REV. 1, 6 (2002).

6. Throughout this Comment, I predominantly use the term *informal fallacy* instead of the three-extra-syllable term *informal logical fallacy*. In legal circles, informal fallacies might also be familiarly known as “material fallacies.” E.g., *Hernandez v. Denton*, 861 F.2d 1421, 1439 (9th Cir. 1988) (Aldisert, J., concurring and dissenting) (“The arguments contain *material fallacies*, that is, errors or evasions that appear only through an analysis of the meaning of the terms, rather than an analysis of the logical form.” (emphasis added)), *vacated*, 493 U.S. 801 (1989); see also RUGGERO J. ALDISERT, *THE JUDICIAL PROCESS* 635–44 (1976).

7. See RUGGERO J. ALDISERT, *LOGIC FOR LAWYERS: A GUIDE TO CLEAR LEGAL THINKING* 141 (3d ed. 1997). Judge Aldisert defines informal (material) fallacies as follows:

An informal fallacy is one that cannot be detected merely by examining the form of the argument but must be detected in some other way. It is any other argument that does not properly establish the supported conclusion. An argument contains an informal fallacy when at least one of its premises is not true, or when the rules of inference are not properly respected.

*Id.*

8. WAICUKAUSKI ET AL., *supra* note 4, at 1 (“As a lawyer, your goal is to make the argument that not merely impresses but . . . induces the desired action. Everything you say or do in making an argument should be determined on the basis of whether it will help to induce the desired outcome.” (emphasis added)).

I also analyze specific informal fallacies and specific cognitive biases as well as their potential to improve or undermine the legal system. I focus on cognitive biases that affect how we understand, witness, remember, and investigate things in our world. I also concentrate on informal fallacies of presumption,<sup>9</sup> which argue from unwarranted assumptions and fail to establish their conclusion. By analyzing the relationship between several cognitive biases and informal fallacies, I hope to show how both types of errors influence the reliability of eyewitness testimony.

My first general purpose is to explain what lawyers and judges can learn from psychologists' and philosophers' insights on legal argumentation.<sup>10</sup> There is a connection between perception and persuasion—namely, that cognitive biases (linked to perception) and informal fallacies (linked to persuasion) are merely two different labels used to describe faulty reasoning as it occurs in one of three phases in the reasoning process: (1) the arguer's mental process in which a specific bias influences how she interprets her perceptions and how she is persuaded to believe something; (2) the arguer's rhetorical process in which she uses a specific tool or argument to persuade the listener to perceive and believe as she believes; and (3) the listener's mental process in which a specific bias influences his perceptions of the arguer's reasoning and persuades him to believe as she does.

An example helps to illustrate what I mean. After a man dies in a helicopter crash, his family sues the helicopter manufacturer. At trial, their lawyer argues that "the manufacturer negligently designed

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9. *Fallacies of Presumption*, LOGICAL FALLACIES, <http://www.logicalfallacies.info/presumption> (last visited Mar. 8, 2013) ("Fallacies of presumption are not errors of reasoning in the sense of logical errors, but are nevertheless commonly classed as fallacies. Fallacies of presumption begin with a false (or at least unwarranted) assumption, and so fail to establish their conclusion."); *Fallacies of Presumption*, PHIL. PAGES, <http://www.philosophypages.com/lg/e06b.htm> (last updated Nov. 12, 2011) ("The fallacies of presumption also fail to provide adequate reason for believing the truth of their conclusions. In these instances, however, the erroneous reasoning results from an implicit supposition of some further proposition whose truth is uncertain or implausible.").

10. E.g., Dan Simon, *A Psychological Model of Judicial Decision Making*, 30 RUTGERS L.J. 1, 122 (1998) ("This psychological approach views legal argument as a form of human reasoning. Legal argumentation is treated as the making of inferences—described generally as the mental operation by which we generate propositions on the basis of some existing knowledge. Legal arguments, thus, are viewed as inferences that lead to propositions, which ultimately have implications for decisions.").

the helicopter and that the negligent design caused the helicopter to crash.”<sup>11</sup> The argument is flawed, however, because it “ignores the possibility of pilot error or maintenance or other human failure as possible causes.”<sup>12</sup> The philosopher’s label for such an argument is *false-cause fallacy*, which asserts that two events are causally connected when no causation has actually been established.<sup>13</sup> The lawyer and the jury have known of only a few helicopter crashes, and none was caused by pilot error. The jury listens as the lawyer directs an expert witness who testifies about the crash. The expert testimony combined with the lawyer’s past knowledge of only a few helicopter crashes persuades the lawyer to make the false-cause argument above. In turn, that argument induces the jury to form a faulty perception that negligent manufacturing caused the crash. The psychologist’s label for such thought processes is *illusory correlation*, which is an inaccurate perception that a relationship exists between a certain action and an effect (often based on past experience).<sup>14</sup> Thus, the informal fallacy describes the lawyer’s faulty argument, and the cognitive bias describes the lawyer and jury’s faulty beliefs.

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11. Harold F. Greeson, *Fear of Lawsuits Makes People, Companies More Responsible Personal Injury Lawsuits: Arbiters of Justice or Costly Cash Cows? To Sue or Not to Sue?*, GREENSBORO NEWS & REC., Feb. 6, 1994, at F1, available at 1994 WLNR 4938577.

12. John G. Englar, Editorial, *Personal Injury Lawyer Makes a Poor Argument*, GREENSBORO NEWS & REC., Feb. 19, 1994, at A9, available at 1994 WLNR 4944137.

13. WILLIAM F. LAWHEAD, THE PHILOSOPHICAL JOURNEY: AN INTERACTIVE APPROACH app. A-8 (3d ed. 2006). The false-cause fallacy may also be referred to as *cum hoc ergo propter hoc* or *correlation proves causation*. See, e.g., *Bull v. City & Cnty. of S.F.*, 595 F.3d 964, 990 (9th Cir. 2010) (Thomas, J., dissenting) (“[T]he government’s entire argument is based on the logical fallacy *cum hoc ergo propter hoc*—happencance implies causation. The government argues that contraband has been found in the San Francisco jails. Thus, the government reasons, individuals who are arrested must be smuggling contraband into the jail. Therefore, the government concludes it must body cavity search everyone who is arrested, even those who pose no risk of concealing contraband, much less of trying to smuggle contraband into the jail.”).

14. See *Illusory Correlation*, ALLEYDOG.COM, <http://www.alleydog.com/glossary/definition.php?term=IllusoryCorrelation> (last visited Jan 28, 2013) (“For example, you may have had some experiences with lawyers, some good, some not so good. It is possible that you only recall the bad experiences (maybe where you felt as though you were lied to by the lawyers) which leads you to formulate the conclusion that all lawyers are liars. Thus, you could come to associate (wrongly?) lawyers with lying, and conclude that all lawyers are liars.”). Related to illusory correlation is the *availability heuristic*, which describes our tendency to make judgments about probability and causation based on how easily events come to mind that either are vivid or are a recent experience. See PAUL BREST & LINDA HAMILTON KRIEGER, *PROBLEM SOLVING, DECISION MAKING, AND PROFESSIONAL JUDGMENT: A GUIDE FOR LAWYERS AND POLICYMAKERS* 253 (2010).

My second general purpose is to promote a new framework for viewing the use of informal fallacies in legal argumentation. Lawyers use informal fallacies as a strategy of persuasion to induce cognitive biases in other people's thinking, to effectively manage their perceptions, and to ultimately change their beliefs. While informal fallacies can be used deceptively<sup>15</sup>—and philosophers condemn and try to excise them from argumentation completely<sup>16</sup>—they can play an essential role in good legal argumentation and effective advocacy.<sup>17</sup> Informal fallacies may help to persuade the listener to actually care about the outcome of a case and to see things the way the lawyer sees them. Similarly, while cognitive biases are generally viewed as a hindrance to the truth<sup>18</sup>—and psychologists catalogue and study their negative impact on eyewitness testimony<sup>19</sup>—they can play an essential role in good legal proceedings.<sup>20</sup> Cognitive biases may help even the most simple-minded listener to perceive each lawyer's version of the case and to determine which to believe. Thus, good legal arguments and proper judicial proceedings can still involve both types of error in reasoning.

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15. BLACK'S LAW DICTIONARY 676 (9th ed. 2009) (defining *fallacy* as an "unsound, and usu[ally] *deceptive*, argument or inference" (emphasis added)).

16. ALDISERT, *supra* note 7, at 143 ("Informal fallacies can sneak up on us. They are also called material fallacies because they deal with content and context of premises. Logicians, scientists and other careful scholars are especially adept at detecting and avoiding these."); LAWHEAD, *supra* note 13, app. A-2.

17. See Brett G. Scharffs, *The Character of Legal Reasoning*, 61 WASH. & LEE L. REV. 733, 780 (2004) ("If one were scrupulously to avoid all of these types of logical error, it would be almost impossible to be effective as a lawyer. Not only does the law tolerate logical error, but competent lawyers are expected to know how and when, and in what manner and to what extent, to make arguments that would be considered fallacious by logicians.").

18. Michael B. Metzger, *Bridging the Gaps: Cognitive Constraints on Corporate Control & Ethics Education*, 16 U. FLA. J.L. & PUB. POL'Y 435, 497 (2005) ("It seems reasonable to question any notion of 'mental health' that denies the truth and the nature of reality.").

19. See generally ELIZABETH F. LOFTUS, *EYEWITNESS TESTIMONY* (1979); HUGO MUNSTERBERG, *ON THE WITNESS STAND: ESSAYS ON PSYCHOLOGY AND CRIME* (Mark Hatala ed., Greentop Academic Press 2009) (1908).

20. See Chris William Sanchirico, *Evidence, Procedure, and the Upside of Cognitive Error*, 57 STAN. L. REV. 291, 300–01, 365 (2004) (arguing that cognitive biases benefit not only the evidentiary process by helping to weasel out insincere witnesses but also the law as a whole, that "the law relies upon mental limitations, that it exploits cognitive shortcomings, and that it would not function nearly as well were humans truly perfectly rational").

In Part II, I define the main theoretical concepts used throughout this Comment and recount some particularly relevant history. Whenever possible, I try to give concrete examples to help the reader understand how informal fallacies and cognitive biases describe the link between perception and persuasion at different stages in the reasoning process. In Part III, I illustrate how these errors have affected the reliability of eyewitness testimony in actual legal proceedings. In Part IV, I explore the connection between specific informal fallacies and specific cognitive biases. Finally, in Part V, I conclude with a brief note on logic and reasoning.

## II. KEY CONCEPTS AND HISTORICAL BACKGROUND

In this Part, I attempt to lend a proper understanding of the various concepts, processes, and terms I use throughout this Comment. In doing so, I also detail some of the historical background needed to appreciate the philosophical overtones at play. In Section A, I define the concepts of perception and persuasion and briefly describe how they interact with one another. In Section B, I explain informal fallacies and cognitive biases and give several specific examples of each. In Section C, I provide background information to develop the current context within which these various elements of law, logic, rhetoric, and psychology combine to provide an account of legal argumentation.

### *A. Perception and Persuasion*

#### *1. Perception*<sup>21</sup>

Perception refers to the way in which the brain processes, interprets, and assigns meaning to sensory information gathered from the environment.<sup>22</sup> Perception enables an actor to find what is real and what is true, although it “includes both the actor’s knowledge of

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21. Oxford English Dictionary defines perception as both “[t]he process of becoming aware of physical objects, phenomena, etc., through the senses” and “[t]he mental product or result of perceiving something.” *Perception*, OED.COM, <http://www.oed.com/view/Entry/140560?redirectedFrom=perception> (last visited Jan. 30, 2013) (subscription required).

22. Christopher L. Heffner, *Psychology 101, Ch. 5: Sensation and Perception*, ALLPSYCH ONLINE, <http://allpsych.com/psychology101/perception.html> (last visited Jan. 30, 2013).

the actual circumstances and the actor's erroneous but reasonable belief in the existence of nonexistent circumstances."<sup>23</sup>

Perception encompasses all three epistemological points of view: the objective, the subjective, and the relative.<sup>24</sup> The objective point of view is material reality, or the world as most people know it. The subjective point of view is specific to the person who is doing the perceiving. The relative point of view is contextual, dealing with things such as changes in light, color frequencies, and differences resulting from perspective. People's perceptions help them to make sense of the world by forming basic beliefs, "ideas, emotions, attitudes, and opinions [that] strongly influence their actions."<sup>25</sup>

It is useful to think about perception as an ever-changing *perceptual field*, made up of the total environment and the individual perceiver who interprets what he is experiencing at the same time he is acting.<sup>26</sup> While each individual's perceptual field is filled with potentially millions of different stimuli, the individual does not, and cannot, take note of each one.<sup>27</sup> In truth, the individual "perceives those things in his environment or field which relate to his wants and needs of that moment."<sup>28</sup> And one of the individual's most basic needs is to perceive that he plays an important role within his total environment—an environment comprising not only his physical and psychological self, but also his cultural values, societal norms, political ideologies, social affiliations, and familial obligations.<sup>29</sup> The individual's perception of himself in relation to these factors is his self-image or personality, which he tries to protect and to sustain in an ordered way within his own perceptual field.<sup>30</sup> Since the individual's perceptual field is an ever-changing environment, the individual's most important need becomes feeling adequate "to face up to his en-

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23. BLACK'S LAW DICTIONARY 1250 (9th ed. 2009).

24. See generally LAWHEAD, *supra* note 13, at 50–180.

25. RICHARD M. BAKER, JR. & GREGG PHIFER, SALESMANSHIP: COMMUNICATION, PERSUASION, PERCEPTION 116 (1966).

26. *Id.* at 117.

27. *Id.* at 119.

28. *Id.*

29. *Id.* at 122.

30. *Id.*



vironment each day.”<sup>31</sup> This quest for personal adequacy provides the motivation needed to drive behavior.<sup>32</sup> Having a basic understanding of this link between perception, motivation, and behavior will be helpful to grasp how persuasion can influence perception.

Perception and memory are malleable and susceptible to the persuasion of a skilled attorney or investigator. This is clearly illustrated in the body of research on eyewitness testimony. Eyewitness-testimony research studies perception and memory together as a three-stage process: acquisition, retention, and retrieval.<sup>33</sup> During the acquisition stage, a witness perceives an event, and that information then enters the memory system.<sup>34</sup> The retention stage is the period of time that passes before a witness attempts to remember the event.<sup>35</sup> And the retrieval stage describes the witness’s attempt to recall the stored information.<sup>36</sup> Accuracy during the retrieval stage is notoriously suspect because of the influence of system variables, which are “manipulable in actual legal proceedings (for example, the types of questions asked of a witness or the type of lineup shown).”<sup>37</sup>

## 2. Persuasion

Since the term *persuasion* often has negative connotations, I begin by defining what it is not for purposes of this Comment. When the average person talks about *lawyers*<sup>38</sup> using *rhetoric*<sup>39</sup> to persuade, per-

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31. *Id.* at 123.

32. *Id.* at 124.

33. ELIZABETH F. LOFTUS ET AL., EYEWITNESS TESTIMONY: CIVIL AND CRIMINAL § 2-2 (4th ed. 2007). Eyewitness-testimony research is then divided into two categories that study the different variables affecting accuracy at these stages of perception and memory: estimator-variable and system-variable research. *Id.* While both lines of research are highly valuable, I draw mostly upon system-variable research because of its focus on the retrieval stage and system variables’ susceptibility to manipulation by outside forces.

34. *Id.* Accuracy at the acquisition stage is affected by estimator variables, which “cannot be controlled by police/investigators in actual cases (for example, how frightened the witness was at the time of the initial perception or whether a weapon was used during the commission of the crime).” *Id.*

35. *Id.*

36. *Id.*

37. *Id.*

38. Lawyers seem to inhabit a particularly low place among public opinion. *E.g.*, Paul Mark Sandler, *Secrets of Persuading a Jury*, ART ADVOC. (Sept. 3, 2010), <http://www.attorney>

sua-sion is often used pejoratively to mean manipulation. According to Professor Scharffs, “Rhetoric is not only the art of persuasion, it is the art of manipulation.”<sup>40</sup>

In this Comment, persuasion does not refer to a process that involves manipulation or coercion, nor does it include telling outright lies or distorting the truth.<sup>41</sup> For coercion “uses intimidation, threats, or pressure to force an individual to think or act in a certain way; [and] manipulation influences deviousness.”<sup>42</sup> Other manipulative tricks, such as “brainwashing, hypnotic suggestion, propaganda, half-truths, lies, and misstatements”<sup>43</sup> should not be confused with persuasive rhetoric used in the courtroom. Celia Childress aptly distinguishes between true persuasion and manipulation.

Persuasion is in itself compelling, but it does not compel; persuasion changes the action of the one persuaded because his or her basic belief and thoughts on a subject are changed by what is seen or heard, not from force and not from reluctance. True persuasion, unlike manipulation, does not entail a person reluctantly overcoming misgivings to agree with the manipulator for reasons of their own. Unlike manipulation, true and complete persuasion is permanent; it does not change when the manipulator is out of sight and hearing.<sup>44</sup>

The point is that the lawyer’s use of persuasion does not necessarily involve trying to bend other people’s wills to her own but ra-

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advocacy.com/2010/09/secrets\_of\_persuading\_a\_jury.html (“It’s no secret that the general public has a low opinion of lawyers.”). It may be that lawyers are the ones keeping themselves down in public opinion. For example, as one lawyer writes candidly: “When we argue, especially where resources are at stake, instead of functioning as truth-seeking beings, we more often *argue like lawyers*, employing many techniques to deflect, distort, distract[,] and destroy, rather than seeking to recognize the substantial common ground that often exists between two arguing parties.” Erich Vieth, *The Function of Reason*, DANGEROUS INTERSECTION (Aug. 15, 2011), <http://dangerousintersection.org/2011/08/15/the-function-of-reason>.

39. Scharffs, *supra* note 17, at 772 (“The primary difficulty with rhetoric is its win-at-any-costs mentality that a desired end justifies any means. With victory as the ultimate measure of success, rhetoric has developed a terrible reputation.”).

40. *Id.* at 772–73.

41. Celia W. Childress, *An Introduction to Persuasion in the Courtroom: What Makes a Trial Lawyer Convincing?*, 72 AM. JUR. TRIALS 137, § 9 (1999) (database updated Feb. 2013).

42. *Id.*

43. *Id.*

44. *Id.*

ther involves getting others to see things the way she sees them. Thus, perhaps to distinguish from manipulative persuasion, *Black's Law Dictionary* defines *fair persuasion*: "Argument, exhortation, or persuasion that does not involve harassment, threats, or misrepresentations."<sup>45</sup>

For present purposes, persuasion primarily describes the act or process used "to move by argument, entreaty, or expostulation to a belief, position, or course of action."<sup>46</sup> Notice that *persuade*, "[t]o induce (another) to do something,"<sup>47</sup> is a transitive verb;<sup>48</sup> that is, persuasion always involves two actors—the subject doing the persuading and the object being persuaded. One person can play both roles (person *A* persuades herself to believe *X*), or two people can each play a role (person *A* persuades person *B* to believe *Y*). Persuasion also requires movement: the arguer moves the listener from belief *X* to belief *Y*. "Persuasion is, in sum, the purpose of trial communication."<sup>49</sup>

Persuasion is best accomplished through the mastery of rhetoric, which teaches that ethos, pathos, and logos are the three basic parts

45. BLACK'S LAW DICTIONARY 1260 (9th ed. 2009).

46. *Persuade*, MERRIAM-WEBSTER, <http://www.merriam-webster.com/dictionary/persuade> (last visited Jan. 30, 2013).

47. BLACK'S LAW DICTIONARY 1260 (9th ed. 2009); GARNER, *supra* note 2, at 672 ("One *persuades* another to do something, but one *convinces* or, archaically, *persuades* another of something. Either *persuade* or *convince* may be used with a *that*-phrase object, although *persuade that* occurs seldom outside law. American judges seem addicted to the expression."); *cf.* Shelly L. Chaiken, Deborah H. Gruenfeld & Charles M. Judd, *Chapter 7: Persuasion in Negotiations and Conflict Situations*, in THE HANDBOOK OF CONFLICT RESOLUTION: THEORY AND PRACTICE (Morton Deutsch & Peter T. Coleman eds., 2000), available at <http://common.books24x7.com/toc.aspx?bookid=2508>. Chaiken and her colleagues note that in the negotiation context, actors attempt to convince each other to adopt a position contrary to their currently held positions.

We define persuasion as the principles and processes by which people's attitudes, beliefs, and behaviors are formed, are modified, or resist change in the face of others' attempts at influence. These attempts are designed to convince targets of persuasion to accept a position on some policy issue or plan of action that is typically contrary to their existing attitudes, beliefs, or practices.

*Id.*

48. THE CHICAGO MANUAL OF STYLE ¶ 5.96 (16th ed. 2010) ("A transitive verb requires an object to express a complete thought; the verb indicates what action the subject exerts on the object. For example, *the cyclist hit a curb* states what the subject *cyclist* did to the object *curb*.").

49. ARON ET AL., *supra* note 1.

of persuasion that make speakers successful.<sup>50</sup> Ethos centers on the speaker's character and good faith, pathos focuses on the speaker's emotional appeal, and logos deals with the speaker's logic and reasoning. Of the three, ethos, or character,<sup>51</sup> is the most persuasive, because we are persuaded most by those we trust.<sup>52</sup> Aristotle taught that what the audience believes to be true is more important than what is proven to be true, that the speaker should endeavor to use every method of persuasion he possesses to persuade the audience, and that the speaker should adjust and use the best type of emotional appeal in each situation to receive the best emotional response from the audience.<sup>53</sup>

### 3. *The interaction between perception and persuasion*

My discussion here of perception and persuasion has been necessarily abbreviated. But the skilled, successful advocate must understand the intricacies of both processes in far greater detail. When seeking to persuade, the lawyer's basic goal must be to change the listener's *frame of reference*—the set of ideas and assumptions that control how the listener perceives and understands something.<sup>54</sup> This is part of the listener's *perceptual field*,<sup>55</sup> which is fundamental to motivation and behavior. The lawyer must seek to help fulfill the listener's need for personal adequacy. The lawyer persuades the listener by using the various "methods, tactics, and strategies" of rhetoric to fine-tune the listener's perceptions.<sup>56</sup> If successful, the lawyer

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50. Childress, *supra* note 41, § 32; Melissa H. Weresh, *Morality, Trust, and Illusion: Ethos as Relationship*, 9 LEGAL COMM. & RHETORIC: JALWD 229, 232 (2012) ("Logos, ethos, and pathos all contribute to persuasion in legal argument.").

51. Scharffs, *supra* note 17, at 781 ("Ethos, rather than just a matter of reputation, image, or persona, is really a matter of character."); Weresh, *supra* note 50, at 229 ("Ethos is character. Character implicates trust. Trust is based on relationship. Relationship persuades.").

52. Scharffs, *supra* note 17, at 781 ("Consider Aristotle's insight that the most persuasive form of rhetoric is ethos, or character. If we have confidence in the character of the person making an argument, if we trust him, we are more likely to be persuaded by what he has to say.").

53. Childress, *supra* note 40, § 36.

54. *Frame of Reference*, MERRIAM-WEBSTER, <http://www.merriam-webster.com/dictionary/frame%20of%20reference> (last visited Jan. 30, 2013).

55. *See supra* Part II.A.1.

56. ARON ET AL., *supra* note 1, § 1.14. Many of these methods, tactics, and strategies of communication are informal fallacies. *See infra* Part II.B.1.

convinces the listener to effectively see eye-to-eye on things.<sup>57</sup> This is because the skilled lawyer recognizes that “narratives, ideas, and ideologies are what fuel the world, not facts,”<sup>58</sup> and that “[b]eing correct . . . isn’t the same thing as being persuasive.”<sup>59</sup>

Thus, through rhetorical techniques that engender trustworthiness, satisfy the listener’s sense of good reason, and appropriately appeal to the listener’s emotions, the lawyer can persuasively adapt and mold the listener’s perceptions of the objective, the subjective, and the relative to align the listener’s beliefs with his own.<sup>60</sup>

### B. Informal Fallacies and Cognitive Biases

Using this working understanding of perception and persuasion, I first explain the concept of informal logical fallacies. I then describe the concept of cognitive biases. Finally, I give a preliminary explanation of the relationship between informal fallacies and cognitive biases.

#### 1. Informal fallacies

While there is wide disagreement among philosophers and logicians about a precise definition for the term *fallacy*,<sup>61</sup> it is generally agreed that fallacies are mistakes in reasoning that involve ambiguity

57. BAKER & PHIFER, *supra* note 25, at 137.

58. Rebecca J. Rosen, *Truth, Lies, and the Internet*, ATLANTIC (Dec. 29, 2011, 2:23 PM), <http://www.theatlantic.com/technology/archive/2011/12/truth-lies-and-the-internet/250569>.

59. William McGurn, *How Obama’s ‘Life of Julia’ Prevailed*, WALL ST. J., Nov. 27, 2012, at A15, available at <http://online.wsj.com/article/SB10001424127887324469304578143344246556774.html>. For a clearly incorrect, but somehow persuasive, interactive website explaining liberal policies and denigrating conservative policies, see *The Life of Julia*, BARACK OBAMA 2012, <http://www.barackobama.com/life-of-julia> (last visited Nov. 28, 2012).

60. See, e.g., DAVID A. SOUSA, HOW BRAIN SCIENCE CAN MAKE YOU A BETTER LAWYER, at xiv (2009) (“Lawyers and judges are like teachers in one very important aspect: They often try to change someone’s brain.”).

61. The Internet is rich with information about the various types of logical fallacies. See Bradley Dowden, *Fallacies*, INTERNET ENCYC. PHIL., <http://www.iep.utm.edu/fallacy> (last updated Dec. 31, 2010) (content may also be accessed through an alternate domain, DEWSBERRY.COM, <http://dewsberry.com/content/es/content/reference/fallacies/fallacies.htm>); Charles Ess, *Informal Fallacies*, DRURY.EDU, <http://www.drury.edu/ess/Logic/Informal/Overview.html> (last visited Feb. 3, 2013); LOGICAL FALLACIES, <http://www.logicalfallacies.info> (last visited Feb. 3, 2013); *Taxonomy of the Logical Fallacies*, FALLACY FILES, <http://www.fallacyfiles.org/taxonomy.html> (last visited Feb. 3, 2013).

and vagueness.<sup>62</sup> A fallacy can be a type of error in an argument, a type of error in reasoning (such as arguing, defining, and explaining), a false belief, or a rhetorical technique that causes any of these errors.<sup>63</sup> For present purposes, fallacy refers either to errors in the substance of arguments (as opposed to errors in the arguer's thinking) or to the rhetorical tools that cause these errors. Fallacies are also described as being either formal or informal. Formal fallacies are concerned with highly technical errors in the logical structure of the argument.<sup>64</sup> Legal arguments rarely<sup>65</sup> contain formal fallacies.<sup>66</sup>

62. Dowden, *supra* note 61 (“The term ‘fallacy’ is not a precise term. One reason is that it is ambiguous.”).

63. *Id.*

64. *Id.* Formal fallacies are typically studied as part of a course on categorical, statement, and predicate logic. See generally FRANCES HOWARD-SNYDER, DANIEL HOWARD-SNYDER & RYAN WASSERMAN, *THE POWER OF LOGIC* (5th ed. 2012).

65. Though rare, legal arguments containing formal fallacies do appear from time to time—even in judicial opinions. See, e.g., Cory S. Clements, Note, *Judicial Takings in Vandevere v. Lloyd*, 2012 BYU L. REV. 423, 438–39 & n.117 (construing *Vandevere v. Lloyd*, 644 F.3d 957, 966–67 (9th Cir.), *cert. denied*, 132 S. Ct. 850 (2011)).

[T]he Ninth Circuit’s reasoning . . . is a non-sequitur. Logically speaking, the argument is invalid because it denies the antecedent, taking the following form: If (A), then (B). (Not-A). So, (not-B). To make sense of how the court’s reasoning is faulty, one must supply the implicit premises, (A) and (B), because the court’s argument made explicit only the contrapositives, (Not-A) and (Not-B). Thus, the argument with its implicit premises reads as follows:

If (A) *Lucas’s* remand order concerned the extent of the property interest, then (B) the extent of the property interest is not a matter of state law. (Not-A) *Lucas’s* remand order “did not concern the extent of the property interest.” So, (not-B) “the extent of the property interest” “is a matter of state law.”

*Id.* (footnote omitted) (“[T]he Court’s quarrel with the state supreme court did not concern the extent of the property interest in the beachfront land, which the Court’s remand order firmly suggests is a matter of state law but, rather, concerned the extent to which the state could invade a property interest without providing just compensation, which is a matter of federal law.” (quoting *Vandevere*, 644 F.3d at 964)).

For an in-depth explanation of how to recognize legal arguments that commit the fallacy of denying the antecedent, see Stephen M. Rice, *Conventional Logic: Using the Logical Fallacy of Denying the Antecedent as a Litigation Tool*, 79 MISS. L.J. 669, 683 (2010) (“[W]here the rules of logic are not observed, the argument takes the form of a fallacy. The Fallacy of Denying the Antecedent is one fallacy that results from failure to observe the logical rules. Where the argument denies the antecedent term of the hypothetical syllogism, it violates the rule that requires the antecedent term be affirmed. Accordingly, when the antecedent term is denied, the argument commits the Fallacy of Denying the Antecedent and is logically invalid.”).

66. This is because formal fallacies are easier to spot than informal fallacies. E.g., Stephen M. Rice, *Indiscernible Logic: Using the Logical Fallacies of the Illicit Major Term and the Illicit Minor Term as Litigation Tools*, 47 WILLAMETTE L. REV. 101, 107 (2010) (“These illogical arguments, called

Informal fallacies are concerned not with the form but with the content (and possibly the intent) of the reasoning.<sup>67</sup> They are “proofs that appear at first glance to be sound but are fatally flawed in their reasoning or construction.”<sup>68</sup> And from a psychology perspective, “a fallacy is often defined as a mistake in reasoning used for deceptive purposes.”<sup>69</sup> While this certainly is not categorically true of all informal fallacies, “many of the informal fallacies are often used in the manipulation of opinion.”<sup>70</sup> Informal fallacies can also be difficult to identify. For instance, a slippery-slope argument often straddles the line between being persuasively plausible and fallaciously exaggerated.<sup>71</sup> For present purposes, a fallacious argument is either inductively very weak, or contains an unjustified premise, or ignores relevant, available evidence that the arguer should know about, and the argument can be used to persuade.<sup>72</sup>

While there is some disagreement about how to classify and label various fallacies, there is generally agreement about how to detect, define, and describe them.<sup>73</sup> The three broad categories are fal-

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fallacies, can be identified by the pattern of an argument’s form, which makes them easy to identify, describe, and discredit.”). Judge Aldisert defines formal fallacy as follows:

A formal fallacy is any violation of any of the six rules of the categorical syllogism or the rules of the hypothetical or disjunctive -alternative syllogism. It is an argument whose conclusion could be false even if all its premises are true. It can be detected merely by examining the *form* (hence its name) or structure of the argument.

ALDISERT, *supra* note 7, at 141.

67. LAWHEAD, *supra* note 13, app. A-9 (stating that informal fallacies are “a type of bad reasoning that can only be detected by examining the content of the argument”).

68. ARON ET AL., *supra* note 1, § 1:12.

69. *Introduction to Logic: Informal Fallacies*, P.L.E., [http://philosophy.lander.edu/logic/fallacy\\_topics.html](http://philosophy.lander.edu/logic/fallacy_topics.html) (last visited Nov. 14, 2012).

70. *Id.*

71. *E.g.*, Mitchell F. Park, Comment, *Defining One’s Own Concept of Existence and the Meaning of the Universe: The Presumption of Liberty in Lawrence v. Texas*, 2006 BYU L. REV. 837, 881 n.191 (“Suppose someone claims that a first step (in a chain of causes and effects, or a chain of reasoning) will probably lead to a second step that in turn will probably lead to another step and so on until a final step ends in trouble. If the likelihood of the trouble occurring is exaggerated, the slippery slope fallacy is committed.” (quoting Dowden, *supra* note 61)).

72. Dowden, *supra* note 61.

73. ALDISERT, *supra* note 7, at 140–41 (“Although there is often agreement as to the existence of a fallacious argument, the method of labeling or characterizing them is up for grabs. Each logician seems to have an idiosyncratic method of classification.”). For an opinion that laments for a catalogue of the most common logical fallacies that lawyers use, see *United Shipyards v. Hoey*, 131 F.2d 525, 526 (2d Cir. 1942) (“It would be time-saving if we had a descriptive cata-

lacies of ambiguity, of presumption, and of relevance.<sup>74</sup> In this Comment, I primarily focus on fallacies of presumption and of relevance.<sup>75</sup> The specific informal fallacies I use in this Comment include the following: false cause,<sup>76</sup> irrelevant thesis,<sup>77</sup> red herring,<sup>78</sup> exclusion,<sup>79</sup> style over substance,<sup>80</sup> emotive or loaded language,<sup>81</sup> poisoning the well, and the straw man.<sup>82</sup>

## 2. Cognitive biases

Phenomena studied in social psychology and cognitive science, cognitive biases are common mistakes and predispositions in mental processing that affect people's beliefs and understandings of the world.<sup>83</sup> The term *cognitive bias* generally describes numerous "observer effects" in the mind, which are "desires and expectations people possess [that] influence their perceptions and interpretations of what they observe."<sup>84</sup> Individuals are susceptible to a slew of biases,

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logue of recurrent types of fallacies encountered in arguments addressed to the courts, giving each of them a number, so that, in a particular case, we could say, "This is an instance of Fallacy No.—Such a device would be helpful here." (footnote omitted)).

74. *Taxonomy of Fallacies*, LOGICAL FALLACIES, <http://www.logicalfallacies.info> (last visited Mar. 8, 2013) ("The most common classification of fallacies groups fallacies of relevance, of ambiguity, and of presumption.").

75. I chose not to address fallacies of ambiguity in this Comment simply because they are harder to identify and describe, which makes them less useful in illustrating the connection between informal fallacies and cognitive biases. See *Fallacies of Ambiguity*, PHIL. PAGES, <http://www.philosophypages.com/lg/e06c.htm> (last modified Nov. 12, 2011) ("There are several patterns of incorrect reasoning that arise from the imprecise use of language. An ambiguous word, phrase, or sentence is one that has two or more distinct meanings. The inferential relationship between the propositions included in a single argument will be sure to hold only if we are careful to employ exactly the same meaning in each of them. The fallacies of ambiguity all involve a confusion of two or more different senses.").

76. See *supra* notes 10–13 and accompanying text.

77. See *infra* Part III.B.2.b, notes 158–169 and accompanying text.

78. See *infra* note 162 and accompanying text.

79. See *infra* Part IV.B, notes 170–82 and accompanying text.

80. See *infra* Part IV.C, notes 183–86 and accompanying text.

81. See *infra* Part IV.D, notes 192–98 and accompanying text.

82. See *infra* Part IV.E, notes 203–06 and accompanying text.

83. See, e.g., Richard E. Moberly, *Sarbanes-Oxley's Structural Model to Encourage Corporate Whistleblowers*, 2006 BYU L. REV. 1107, 1148 ("[E]mployees suffer from cognitive biases that may inhibit them from spotting and reporting wrongdoing.").

84. Risinger et al., *supra* note 5.



sometimes more than one at a time.<sup>85</sup> Cognitive biases may also be closely tied to self-perception and the need for personal adequacy. Many are heuristic tools, or mental rules of thumb, that attempt to create clarity amid chaos, giving the individual a sense of order and meaning.<sup>86</sup> While they are helpful in ordering our life experiences, cognitive biases often cause distorted perceptions, erroneous judgment, and faulty decision making.<sup>87</sup> In general, cognitive biases can significantly distort the reliability of legal and anecdotal evidence.<sup>88</sup>

Daniel Kahneman describes a clear way to understand our mental processes by dividing them into two categories: System 1 and System 2.<sup>89</sup> “*System 1* operates automatically and quickly, with little or no effort and no sense of voluntary control. *System 2* allocates attention to the effortful mental activities that demand it, including complex computations.”<sup>90</sup> Most biases result from System 1 processes.<sup>91</sup>

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85. Mario J. Rizzo & Douglas Glen Whitman, *The Knowledge Problem of New Paternalism*, 2009 BYU L. REV. 905, 951 (citing Joachim I. Krueger & David C. Funder, *Towards a Balanced Social Psychology: Causes, Consequences, and Cures for the Problem-Seeking Approach to Social Behavior and Cognition*, 27 BEHAV. & BRAIN SCI. 313, 317 tbl.1 (2004)) (noting that hundreds of studies have identified “myriad cognitive and behavioral biases,” sometimes two or more in a study, and arguing that “individuals are subject to multiple biases”).

86. See Russell B. Korobkin & Thomas S. Ulen, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics*, 88 CALIF. L. REV. 1051, 1085 (2000) (explaining how “decision-making heuristics that simplify decision-making tasks” reduce both information-processing and decision-making costs, thus making it possible for us “to operate in an increasingly complex world”).

87. Brian H. Bornstein & Edie Greene, *Jury Decision Making: Implications For and From Psychology*, 20 CURRENT DIRECTIONS PSYCHOL. SCI. 63, 64 (2011) (“People often rely on heuristics that can lead to erroneous judgments, and they have difficulty compartmentalizing their knowledge.”).

88. WILLIAM R. UTTAL, HUMAN FACTORS IN THE COURTROOM: MYTHOLOGY VERSUS SCIENCE 165–66 (2006) (“[M]ost people’s memories are highly fallible, with temporal order and spatial arrangement, not to mention the significance of our recollections, increasingly distorted as time passes. The bottom line is that there are many influences that can grossly distort our memories. In spite of this fragility of what we remember, witnesses are called upon to produce detailed reports of previous experiences in the courtroom.”); *Cognitive Bias*, SCI. DAILY, [http://www.sciencedaily.com/articles/c/cognitive\\_bias.htm](http://www.sciencedaily.com/articles/c/cognitive_bias.htm) (last visited Nov. 14, 2012).

89. DANIEL KAHNEMAN, THINKING, FAST AND SLOW 323–24 (Kindle ed. 2011). The psychologists Keith Stanovich and Richard West originally proposed the terms System 1 and System 2. *Id.*

90. *Id.* at 327–30.

91. *Id.*

Biases can be classified according to numerous standards,<sup>92</sup> but three main categories are more helpful for purposes of this Comment: biases of understanding, persuasion, and decision-making. Biases of understanding involve seeing, witnessing, remembering, and investigating. Biases of persuasion affect problem solving and negotiation. Biases of decision-making interfere with exercising judgment and using probability and statistics. The cognitive biases most relevant to this Comment include the following: illusory correlation, bounded awareness, confirmation bias, framing effect, suggestibility, and cognitive dissonance.<sup>93</sup>

### 3. *The connection between informal fallacies and cognitive biases*

While informal fallacies and cognitive biases are related types of reasoning errors, it should be clear that they are different in kind. Any confusion that exists between the two likely results from the fact that reasoning is “a term that can refer to either a mental or a verbal activity.”<sup>94</sup> Reasoning, then, includes the mental process of creating a persuasive argument, the verbal act of reciting an argument, and the mental process of evaluating another person’s argument.<sup>95</sup> Informal fallacies describe written or verbalized arguments, while cognitive biases describe both the arguer and listener’s mental processes.

Informal fallacies are descriptive labels for the types of arguments that can be used to persuade jurors and witnesses, even though the arguments often lack a necessary premise or introduce irrelevant information. They are the type of argument that is highly persuasive and must be handled somewhat delicately since they can

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92. *E.g.*, Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: The Problem of Market Manipulation*, 74 N.Y.U. L. REV. 630, 645 (1999) (dividing cognitive biases into “those affecting the way in which individuals attempt to make ‘scientific’ and probabilistic judgments and those affecting the way in which individuals determine and exhibit their preferences”).

93. I focus on these biases because they have the greatest influence on seeing, remembering, understanding, and decision-making.

94. Hugo Mercier & Dan Sperber, *Why Do Humans Reason? Arguments for an Argumentative Theory*, 34 BEHAV. & BRAIN SCI. 57, 59 (2011) (“The mental action of working out a convincing argument, the public action of verbally producing this argument so that others will be convinced by it, and the mental action of evaluating and accepting the conclusion of an argument produced by others correspond to what is commonly and traditionally meant by *reasoning*.”).

95. *Id.*

be misused to manipulate others. Cognitive biases are also descriptive labels for processes that are both inborn in the individual and learned from social influences. Biases are what make the mind susceptible to persuasive, fallacious arguments, because the biases themselves act against reason—they lead people to reach incorrect conclusions that the “reasonable person” would never reach.

To use a simple analogy, informal fallacies and cognitive biases are two sides of the same coin—one side that represents faulty verbal or written reasoning, and one side that represents faulty mental reasoning. Informal fallacies generally describe the argument (rather than the arguer) and focus on the persuasiveness of the rhetoric, the relevance or clarity of the content, and the purpose or goal of the argument. Cognitive biases generally describe the faulty mental processes of the observer, the arguer, and the listener, and focus on the way in which perceptions of the external object or argument are faulty and are easily influenced. Informal fallacies and cognitive biases should therefore be understood in a new light specific to legal argumentation: Informal fallacies are *persuasive* tools that tend to *induce errors* in the way that other people process and think about information, and they are used to manage what people perceive and eventually believe.

*C. Background and Context: Sophists, Philosophers, and Lawyers*

In fifth-century B.C. Athens, a class of teachers known as the Sophists became the center of attention with “their claim to teach ‘excellence’ or ‘virtue’ . . . both in mastering one’s own affairs and in providing leadership in the city that makes them popular.”<sup>96</sup> The Sophists were teachers of rhetoric: the fundamentals and art of persuasive speaking, including how to present a case, marshal arguments, and appeal to the audience’s emotions.<sup>97</sup> Most relevant to the present topic was the Sophists’ claim to teach “the ability to use the spoken word to persuade the jurors in the courts”<sup>98</sup> and “how to make the weaker argument into the stronger.”<sup>99</sup> In short, the Sophists were trained at manipulating other people’s perceptions, or what I would call inducing errors in their thinking to manage what they perceive and eventually believe.<sup>100</sup>

But the Sophists also indoctrinated in their students the view of skepticism—that the individual can never get at truth, and thus the only reasonable response is to suspend judgment on all issues.<sup>101</sup> They also taught their students to adopt a theory of relativism, which holds that truth<sup>102</sup> “is relative to the individual, the culture, or the time.”<sup>103</sup>

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96. NORMAN MELCHERT, *THE GREAT CONVERSATION: A HISTORICAL INTRODUCTION TO PHILOSOPHY* 42 (5th ed. 2007).

97. *Id.*

98. *Id.*

99. *Id.* at 43.

100. *E.g.*, Childress, *supra* note 41.

101. *E.g.*, MELCHERT, *supra* note 96, at 43–45.

102. “Truthiness,” a word that was reinvigorated by the television personality Stephen Colbert, means “truth that comes from the gut, not books,” and “the quality of preferring concepts or facts one wishes to be true, rather than concepts or facts known to be true.” *Word of the Year 2006*, MERRIAM-WEBSTER, <http://www.merriam-webster.com/info/06words.htm> (last visited Mar. 8, 2013). Colbert explained the word in an out-of-character interview:

Truthiness is tearing apart our country, and I don’t mean the argument over who came up with the word. I don’t know whether it’s a new thing, but it’s certainly a current thing, in that it doesn’t seem to matter what facts are. It used to be, everyone was entitled to their own opinion, but not their own facts. But that’s not the case anymore. Facts matter not at all. Perception is everything. It’s certainty. People love the president because he’s certain of his choices as a leader, even if the facts that back him up don’t seem to exist. It’s the fact that he’s certain that is very appealing to a certain section of the country. I really feel a dichotomy in the American populace.

Philosophers have generally disagreed with the Sophists' ideas of skepticism and relativism because the philosopher's end goal is to reach ultimate truth. Unfortunately, because the art of rhetoric had become so bound up with the Sophists' underlying beliefs, philosophers have tended to reject rhetoric as a legitimate method to get at the truth. Beginning with Aristotle, philosophers began to develop well-reasoned and systematic tools for uncovering *sophisms*, or fallacious arguments that look good but are not.<sup>104</sup> Thus, philosophers were trained at recognizing the Sophists' manipulations and are the ones who labeled their rhetorical tactics "logical fallacies." While Aristotle focused mostly on formal logic, he also recognized some informal fallacies (such as fallacies of relevancy). Modern philosophers and logicians have greatly expanded upon Aristotle's foundational work and have developed a much broader understanding of informal fallacies.<sup>105</sup>

The lawyer's end goal is different than the Sophist's winning-at-all-costs mentality, but it is also different than the philosopher's goal of discovering absolute truth. The lawyer cares a great deal about finding the truth, but he also cares about winning his client's case. As such, he uses language, reason, and rhetorical tools aimed at persuading others to believe his position. Because the term *fallacy* often carries a pejorative connotation, the lawyer tends to disagree that legal arguments—or at least *her* legal arguments—are ever logically fallacious. This view likely stems from the notion that "[j]udicial sys-

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What is important? What you want to be true, or what is true?

. . . Truthiness is "What I say is right, and [nothing] anyone else says could possibly be true." It's not only that I *feel* it to be true, but that *I* feel it to be true. There's not only an emotional quality, but there's a selfish quality.

Nathan Rabin, *Interview with Stephen Colbert*, A.V. CLUB (Jan. 25, 2006), <http://www.avclub.com/articles/stephen-colbert,13970> (alteration in original).

103. MELCHERT, *supra* note 96, at 45.

104. GARNER, *supra* note 2, at 832 ("[S]ophist . . . today has primarily negative connotations in the sense 'one who makes use of fallacious arguments; a specious reasoner.' Formerly it was a respectable word meaning 'one who is distinguished for learning; a wise or learned man.'"); MELCHERT, *supra* note 96, at 45.

105. Rice, *supra* note 66, at 106 & n.12 ("The modern rules of logic have been forged from the more than 2,000 years of philosophical struggle to determine just what logic is and why it is so important."). For an excellent taxonomy of both formal and informal fallacies, see *Taxonomy of the Logical Fallacies*, *supra* note 61.

tems are based on the hypothesis that there is an essential and inseparable link between justice and truth.”<sup>106</sup> The lawyer’s principal job is to ensure that her client receives justice by advocating her client’s view of the truth. Out of respect for justice and truth, the good lawyer knows that “deliberate misrepresentation based on fallacies or some other rhetorical trick that serves to divorce truth from justice is not acceptable or ethical.”<sup>107</sup>

Do lawyers who use informally fallacious arguments recognize that they are managing other people’s perceptions? The short answer is yes. With few exceptions, lawyers are aware of their tactics and the intended effect of their arguments. But they are likely unaware that their own cognitive biases affect their ability to reason logically. They understand the principles of reasoning and logic—e.g., that a valid argument is one in which “it is impossible for the premises to be true and the conclusion false,” that a sound argument is “a valid argument with true premises,” and that a strong argument has true premises that would “make the conclusion highly probable.”<sup>108</sup> But they also understand the power of persuasion through rhetoric, the cognitive processes of perception (or at least how to manage perceptions), the task of getting the listener to see things as they do, and the concept that while a valid, deductive (or a strong, inductive) argument is a necessary condition to prove the truth of a case, it is not a sufficient condition to persuade the listener to believe—let alone want to believe—that a lawyer’s position in a case is just. In sum, the lawyer generally does not view an otherwise truthful argument expressed with emotive or loaded language as fallacious; he views it as persuasive advocacy.

When we label rhetorical tools as informal fallacies, the person employing those tools generally will disagree or even take offense. This is because the label seems to imply that the person employing the rhetorical tool is illogical. Yet it seems more correct to say that we label these tools as informal fallacies because we fear that the audience is illogical and will not recognize the rhetorical tool for what it is: a persuasive device that effectively manages people’s percep-

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106. ARON ET AL., *supra* note 1, § 1:13.

107. *Id.*

108. LAWHEAD, *supra* note 13, at 42.

tions.<sup>109</sup> The label thus seems to serve more as a warning to the audience than as a slight to the speaker. After all, the speaker must be thinking quite logically if she knows how to manage other people's perceptions. It is helpful, then, to think of the lawyer's use of informal fallacies not as a product of her own illogical or faulty reasoning,<sup>110</sup> but rather as an aid to manage other people's perceptions, getting them to see and believe that her client's version of the truth is aligned with justice.

In the following material, Parts III and IV, I use concrete examples to illustrate how the lawyer's use of informal fallacies can induce cognitive biases in the listener.

### III. EYEWITNESS TESTIMONY, WRONGFUL CONVICTION, AND THE COURTS

In Section A, I briefly discuss the insights that cognitive psychologists and legal scholars have already brought to bear on eyewitness-testimony research and note how my Comment contributes to the literature. In Section B, I detail the facts and court proceedings of two cases. I do this to show the limited tools available to judges—a few evidentiary rules and a due-process test—to exclude likely inaccurate or unduly persuasive eyewitness testimony from being presented to the jury. I also analyze the current research in cognitive psychology to better illustrate how specific informal fallacies induce specific cognitive biases.

#### A. Cognitive Psychologists and Legal Scholars on Eyewitness Testimony

Alarmingly, “[e]yewitness error is the leading cause of wrongful convictions in the United States.”<sup>111</sup> A recent review of the first 200

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109. See Childress, *supra* note 40, § 83 (“According to Aristotle, enthymemes are ‘the very body and substance of persuasion.’ For rational people and critically thinking people, enthymemes are understandable. *But all minds on jury panels are not totally rational; nor would we want them to be.* Therefore, the enthymeme should NOT be used alone, but in conjunction with a strong personal ethos and with specific emotional appeals (pathos).” (emphasis added)).

110. See Dowden, *supra* note 61 (“In describing the fallacies . . . it would be more accurate to say that a reasoner *commits* the fallacy and the reasoning *contains* the fallacy.”).

111. LOFTUS ET AL., *supra* note 33, § 1-2; Aviva Orenstein, *Facing the Unfaceable: Dealing with Prosecutorial Denial in Postconviction Cases of Actual Innocence*, 48 SAN DIEGO L. REV. 401, 440 (2011) (“Mistaken eyewitness testimony is a large contributing factor to wrongful convictions[.]”).

DNA-exoneration cases found that eyewitness misidentification was involved in 158 of the cases (or 79%).<sup>112</sup> How do cognitive biases and informal fallacies influence eyewitness testimony that leads to wrongful convictions?

Numerous scholars have already addressed the role of cognitive bias in the wrongful-conviction context. Some have focused on prosecutors' susceptibility to certain biases affecting the way they investigate, prosecute, and eventually convict the innocent.<sup>113</sup> Others have proposed prosecutorial best-practice strategies,<sup>114</sup> have suggested the need for greater clarity in the standards governing attorney-witnesses pretrial communications,<sup>115</sup> or have confronted the issue of "prosecutorial denial of DNA exoneration."<sup>116</sup> These highly informative lines of research focus on the lawyer's cognitive biases that influence his own reasoning. As noted earlier in the section on

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112. Brandon L. Garrett, *Judging Innocence*, 108 COLUM. L. REV. 55, 78 (2008).

113. Susan Bandes, *Loyalty to One's Convictions: The Prosecutor and Tunnel Vision*, 49 HOW. L.J. 475, 481 & n.48, 493 (2006) (explaining that tunnel vision, which "results in the officer becoming so focused upon an individual or incident that no other person or incident registers in the officer's thoughts," involves a "complex mix of psychological, social, and moral factors"); Alafair Burke, *Commentary: Brady's Brainteaser: The Accidental Prosecutor and Cognitive Bias*, 57 CASE W. RES. L. REV. 575, 580 (2007) (arguing that the *Brady* doctrine "invites cognitive biases," such as confirmation bias and selective information processing, that will consistently "cause prosecutors to undervalue materiality"). Compare Alafair S. Burke, *Improving Prosecutorial Decision Making: Some Lessons of Cognitive Science*, 47 WM. AND MARY L. REV. 1587, 1590 (2006) (explaining that prosecutors are irrational, human decision-makers, subject to "a common set of information-processing tendencies that depart from perfect rationality"), with Fred Klein, *A View from Inside the Ropes: A Prosecutor's Viewpoint on Disclosing Exculpatory Evidence*, 38 HOFSTRA L. REV. 867, 876 (2010) ("Once the prosecution has decided in its own mind that the defendant is guilty, the goal becomes one of marshalling the evidence to ensure conviction and avoiding or minimizing any other evidence that gets in the way.").

114. Alafair Burke, *Neutralizing Cognitive Bias: An Invitation to Prosecutors*, 2 N.Y.U. J.L. & LIBERTY 512, 520-21 (2007) (suggesting several "prosecutor-initiated reforms," or "debiasing strategies," aimed at mitigating the effects of cognitive bias).

115. Melanie D. Wilson, *Quieting Cognitive Bias with Standards for Witness Communications*, 62 HASTINGS L.J. 1227, 1229 (2011) (detailing several proposed changes to the ABA Criminal Justice Standards for Prosecution and Defense Functions and explaining "why carefully tailored Standards may lessen the detrimental impact" of cognitive biases on pretrial communications with witnesses).

116. Orenstein, *supra* note 111, at 446 (examining the various explanations, including cognitive biases and denial, for why prosecutors "resist obviously true claims of innocence," *id.* at 419-24); see also Bandes, *supra* note 113, at 475 (noting as a "disturbing theme . . . the refusal of prosecutors to concede that the wrong person was convicted, even after a defendant's exoneration").



persuasion,<sup>117</sup> an individual certainly can persuade himself to believe something, which is very similar to the effect of cognitive bias changing one's own belief.

Eyewitness-testimony errors are not always caused by the eyewitness being blatantly wrong or actively trying to deceive the court. Much of the error is attributable to investigators and lawyers who attempt to manage the eyewitness's perceptions in preparation for trial (and even during the trial).<sup>118</sup> This sort of preparation for trial is usually done out of a good-faith desire to make sure the witness's testimony is helpful rather than harmful at trial. But the lawyer's own cognitive bias may tend to convince him that his "'preparation' of a witness will foster the witness's ability to tell a story effectively rather than influence the witness to deviate from her own version in ways that advance the interests of the lawyer's client."<sup>119</sup> Thus, the persuasive lawyer will try to induce his witness "to behave in a predictable manner, to respond to persuasion by doing what the [lawyer] wants him to when he wants it done, and to respond willingly and agreeably."<sup>120</sup>

### *B. Courts' Limited Role in Excluding Unreliable Testimony*

#### *1. Excluding opinion that lacks a rational connection to actual perception*

Courts seem to recognize (to a certain extent) the undue power that a witness's faulty perceptions can have over the witness's opinion testimony. This is demonstrated by certain federal and state rules of evidence that act as safeguards by excluding opinions that lack a rational connection to the witness's actual perception.<sup>121</sup>

During a traffic stop for speeding, two Maryland state troopers arrested Kenneth Robinson after discovering there was a warrant out

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117. See *supra* Part II.A.2.

118. See *supra* Part II.A.1 (explaining system variables as factors that are manipulable in actual legal proceedings).

119. Wilson, *supra* note 115, at 1229.

120. BAKER & PHIFER, *supra* note 24, at 124.

121. E.g., FED. R. EVID. 701 (stating that "[i]f a witness is not testifying as an expert, testimony in the form of an *opinion* is limited to one that is . . . rationally based on the witness's *perception*" (emphasis added)).

for his arrest for parole violation.<sup>122</sup> Upon searching Robinson, one trooper found a transparent baggie with eight rocks inside, which he believed was crack cocaine.<sup>123</sup> Back at the station, Robinson attacked the troopers and managed to swallow the baggie of eight rocks. Robinson received treatment at a hospital, but “[n]either the rocks nor the baggie were ever recovered” and thus were not chemically analyzed.<sup>124</sup> A jury convicted Robinson of possession of cocaine based on the lay opinion testimonies of the two troopers who handled the baggie, neither of whom were “expert in narcotic identification.” One trooper testified that he got a “good look” at the rocks in the baggie and the other trooper that he “could see the eight pieces clearly.”<sup>125</sup> “[B]ased on their training and experience, the troopers drew the common sense inference that the substance swallowed by Robinson looked like crack cocaine. The troopers further concluded that the substance was, in fact, crack cocaine.”<sup>126</sup>

The Maryland Court of Appeals reversed, holding that the state troopers’ opinion testimony lacked a sufficient “rational connection between what the troopers actually perceived and the ultimate opinions they expressed at trial.”<sup>127</sup> The court declared that the proper test to ensure that a “sufficiently rational nexus exists between actual perception and the subsequent lay opinion testimony based on that perception is the validity of the proposition the witness used to link perception to opinion.”<sup>128</sup> That the rocks had the mere visual appearance of crack cocaine did not make it reasonably certain that they were in fact crack cocaine. At the time the case was decided, it was extremely common for drug dealers to sell counterfeit substances that had the same visual resemblance of controlled substances. Thus, it was equally likely that the troopers had perceived a look-alike substance as it was that they had perceived actual crack cocaine. “Hence, the proposition that crack cocaine can be identified by

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122. Robinson v. State, 702 A.2d 741, 742–43 (Md. 1997).

123. *Id.* at 743.

124. *Id.*

125. *Id.*

126. *Id.* at 751.

127. *Id.* at 750.

128. *Id.* at 751.

sight alone with reasonable certainty by a lay witness is logically unsound.”<sup>129</sup>

## 2. Excluding unreliable identifications due to suggestive circumstances

More than forty years ago, the U.S. Supreme Court recognized the inherent “problems of eyewitness identification”<sup>130</sup> and decided to increase the available “protections against mistaken eyewitness testimony.”<sup>131</sup> The Court noted that the admission of highly unreliable identification testimony could violate a criminal defendant’s due-process guarantee to a fair trial.<sup>132</sup> Between 1967 and 1977, the Court decided a number of cases creating a guiding test—the *Biggers* analysis—to determine whether preliminary judicial review is required when defendants claim that “an eyewitness identification was made under such suggestive circumstances that due process requires its exclusion from evidence.”<sup>133</sup> Most significant was the Court’s holding in *Manson v. Braithwaite* that

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129. *Id.* at 752.

130. *Manson v. Braithwaite*, 432 U.S. 98, 111–12 (1977) (construing *Stovall v. Denno*, 388 U.S. 293 (1967); *Gilbert v. California*, 388 U.S. 263 (1967); *United States v. Wade*, 388 U.S. 218 (1967)). Writing for the Court, Justice Blackmun explained “the driving force” behind these cases:

Usually the witness must testify about an encounter with a total stranger under circumstances of emergency or emotional stress. The witness’ recollection of the stranger can be distorted easily by the circumstances or by later actions of the police. Thus, *Wade* and its companion cases reflect the concern that the jury not hear eyewitness testimony unless that evidence has aspects of reliability.

*Id.* at 112.

131. *Id.* at 118 (Marshall, J., dissenting).

132. See *Braithwaite*, 432 U.S. at 114 (“[R]eliability is the linchpin in determining the admissibility of identification testimony for both pre- and post-*Stovall* confrontations. The factors to be considered . . . include the opportunity of the witness to view the criminal at the time of the crime, the witness’ degree of attention, the accuracy of his prior description of the criminal, the level of certainty demonstrated at the confrontation, and the time between the crime and the confrontation. Against these factors is to be weighed the corrupting effect of the suggestive identification itself.”); *Neil v. Biggers*, 409 U.S. 188 (1972); *Stovall*, 388 U.S. at 301–02 (recognizing the right to claim that a “confrontation conducted . . . was so unnecessarily suggestive and conducive to irreparable mistaken identification that [the defendant] was denied due process of law”); *Gilbert*, 388 U.S. 263; *Wade*, 388 U.S. 218.

133. Brief for American Psychological Ass’n as Amicus Curiae Supporting of Petitioner at 5, *Perry v. New Hampshire*, 132 S. Ct. 716 (2012) (No. 10-8974) [hereinafter APA Amicus Brief] (citing *Braithwaite*, 432 U.S. at 114; *Biggers*, 409 U.S. 188; *Stovall*, 388 U.S. 293).

reliability—i.e. probable accuracy—“is the linchpin in determining the admissibility of identification testimony.”<sup>134</sup> The *Biggers* analysis, then, was aimed at preventing false identifications from convicting innocent persons.

Last term, the Supreme Court applied a “retroactive revision of its existing eyewitness identification cases”<sup>135</sup> when it held that these same due-process safeguards do not protect against eyewitness-identification evidence obtained in impermissibly suggestive circumstances, likely to lead to misidentification. Likely unreliable eyewitness testimony procured under suggestive circumstances does not require a preliminary judicial review unless improper state action created the suggestive circumstances.<sup>136</sup>

On August 15, 2008, at just before 3:00 a.m., Nashua police officer Nicole Clay arrived at the parking lot of a large apartment building after receiving a report “about a black male looking through vehicles and attempting to gain entry.”<sup>137</sup> Nubia Blandon, who speaks only Spanish, had her husband telephone the police when she observed from her apartment window a black man removing items from the Honda Civic belonging to her neighbor-across-the-hall, Alex Clavijo.<sup>138</sup> At some point, Blandon left her apartment to alert Clavijo his car had been broken into. Upon her arrival to the scene, Officer Clay saw Barion Perry, the petitioner, standing between two cars and holding amplifiers. She asked Perry to put down the amplifiers and to come over and speak to her, which he did. Perry told Clay he had found the amplifiers sitting on the ground and he was just then moving them. He also told Clay two other men had left the parking lot before Clay arrived. After Perry pointed out one of the men nearby, “Clay questioned this other man briefly before letting him go.”<sup>139</sup>

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134. *Id.* at 5 (quoting *Brathwaite*, 432 U.S. at 114).

135. Note, *Fifth Amendment—Suggestive Eyewitness Identifications: Perry v. New Hampshire*, 126 HARV. L. REV. 246, 256 (2012) [hereinafter *Suggestive Eyewitness Identifications*].

136. Brief for Petitioner at i, *Perry v. New Hampshire*, 132 S. Ct. 716 (2012) (No. 10-8974).

137. Petition for Writ of Certiorari at 2, *Perry*, 132 S. Ct. 716 (No. 10-8974).

138. *Id.* at 2–3.

139. *Id.* at 3.

Clavijo had descended from his apartment and approached Clay just as she was finishing up with the man that Perry had pointed out.<sup>140</sup> Clavijo identified himself as the owner of the Civic and said that his neighbor, Nubia Blandon, was the only person claiming to have witnessed the break-in.<sup>141</sup> Just then, Officer Robert Dunn arrived at the scene and Clay asked Dunn to stand with Perry while Clay went with Clavijo into the apartment building to speak to Blandon.<sup>142</sup> Clay left the two men standing in the middle of the parking lot. Just like Clay, “Dunn was in full uniform,” and both officers “had arrived in fully-marked police cruisers.”<sup>143</sup> Tellingly, as he stood alone with Dunn, “Perry was the only black man in the area.”<sup>144</sup>

Up on the “second or third floor,” Clavijo translated as Clay questioned Blandon in the hallway outside Blandon’s apartment.<sup>145</sup> Clay could not see Dunn and Perry from where she spoke with Blandon. When Clay asked Blandon for a description of the man she had seen, Blandon could only describe him as a tall black man. Clay sought additional details but Blandon did not give any “details as to the suspect’s facial features, clothing, facial hair, or any other identifying characteristics.”<sup>146</sup> While Clay never asked Blandon to identify Perry, when Clay asked for a better description of the man, Blandon pointed back toward the window in her apartment “to show that she had already looked,” and told Clay that “it was the man that was in the back parking lot standing with the police officer.”<sup>147</sup> Clay did not take Blandon and point out Perry, and Clay failed to ask Blandon whether Blandon “had continually watched the man from the time of the theft to the time the police arrived or if she had left the window

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140. *Id.*

141. *Id.* at 2–3.

142. *Id.* at 3.

143. *Id.*

144. *Id.*

145. *Id.*

146. Brief for Petitioner, *supra* note 136, at 4.

147. *Id.*

at any point.”<sup>148</sup> Based on Blandon’s eyewitness account, Officer Clay arrested Perry that same night.<sup>149</sup>

On September 21, thirty-seven days later, Blandon went to the police station and was shown “a photo array including a photo of Perry, but she could neither pick out any person as the man she saw in the lot nor provide a description because ‘she did not clearly perceive the details of his face.’”<sup>150</sup> Perry motioned to suppress the evidence that Blandon had identified Perry to Clay because its admission would violate his due process right to a fair trial. The trial court denied the motion because there were no unnecessarily suggestive police procedures that created the identification.<sup>151</sup>

At trial, Blandon never made an in-court identification of Perry as the perpetrator. In fact, when an attorney at trial asked whether she had been able to point out the man she had seen removing something from Clavijo’s car, Blandon replied, “Not point, as I said thank God the officer arrived in time and found out who the person was.”<sup>152</sup> The jury convicted Perry of theft by unauthorized taking, the trial court sentenced him to three to ten years in prison, and Perry appealed.<sup>153</sup> The New Hampshire Supreme Court disagreed with the U.S. Supreme Court that reliability alone is the linchpin of admissibility. Instead, the court concluded that government-created suggestiveness is the proper prerequisite for a judge to even question the admissibility of an eyewitness identification.<sup>154</sup>

The court also rejected Perry’s due-process claim and held that “the *Biggers* analysis does not apply to a potentially suggestive out-of-court identification where there is a complete absence of improper state action.”<sup>155</sup> Perry petitioned for certiorari, and in January 2012 the U.S. Supreme Court adopted the state court’s position.<sup>156</sup> The Court held that, unless “improper law enforcement activity is in-

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148. *Id.*

149. Petition for Writ of Certiorari, *supra* note 137, at 8.

150. *Id.*

151. Brief for Petitioner, *supra* note 136, at 6.

152. Petition for Writ of Certiorari, *supra* note 137, at 8.

153. *Id.*

154. *Id.* at 6.

155. *State v. Addison*, 8 A.3d 118, 126 (N.H. 2010).

156. *Perry v. New Hampshire*, 132 S. Ct. 716 (2012).

volved,” eyewitness reliability is tested through the other rights available to defendants, such as “the presence of counsel at postindictment lineups, vigorous cross-examination, protective rules of evidence, and jury instructions on both the fallibility of eyewitness identification and the requirement that guilt be proved beyond a reasonable doubt.”<sup>157</sup>

As noted earlier in the section on perception,<sup>158</sup> extensive estimator-variable research shows that “the presence or absence of state action in creating any suggestiveness is frequently irrelevant to ‘the primary evil to be avoided,’ i.e., the ‘likelihood of . . . misidentification.’”<sup>159</sup> The American Psychological Association has argued that the requirement of improper state action “derogates the focus on accuracy that lies at the core of [the] Court’s relevant precedent,” as there is an equally high risk of wrongful convictions resulting from false identifications where no state-created suggestiveness is involved.<sup>160</sup>

#### IV. CONNECTING THE LINKS BETWEEN SPECIFIC INFORMAL FALLACIES AND SPECIFIC COGNITIVE BIASES

##### *A. Fallacy of Irrelevant Thesis and Bounded Awareness*

In short, the new *Biggers* analysis seems to commit the fallacy of irrelevant thesis. The *fallacy of irrelevant thesis*,<sup>161</sup> similar to the *red herring*,<sup>162</sup> is an argument that distracts from the main issue at hand. It involves marshaling evidence to support an irrelevant conclusion that is different from the real issue, and it is psychologically persuasive because generally it differs only subtly.<sup>163</sup> The difficult part of asserting that an argument commits the fallacy of irrelevance is in establishing what the “real” issue is.

Even though its precedent decisions make clear that the real issue is reliability—ensuring that a criminal defendant receives a fair trial by excluding highly unreliable identifications—the *Perry* Court

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157. *Id.* at 721.

158. *See supra* Part II.A.1.

159. APA Amicus Brief, *supra* note 133, at 3 (emphasis added) (quoting *Neil v. Biggers*, 409 U.S. 188, 198 (1972)).

160. *Id.* at 6.

backs away from its earlier position: “Our decisions . . . turn on the presence of state action and aim to deter police from rigging identification procedures, for example, at a lineup, showup, or photograph array.”<sup>164</sup> “By disowning reliability as an independent due process concern in past eyewitness identification cases,”<sup>165</sup> the Court had to abrogate First, Second, and Sixth Circuit precedents that all followed the original *Biggers* analysis.<sup>166</sup>

The “real” issue has now shifted toward deterring improper police misconduct that leads to inaccurate identifications.<sup>167</sup> It follows,

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161. ALDISERT, *supra* note 6, at 638 (“[The fallacy of irrelevance] is made by attempting to prove something that has not even been denied or by attacking something that has not been asserted. . . . In a murder trial, for example, a prosecutor is guilty of the fallacy of irrelevance if, instead of proving the defendant guilty of murder, he proves him to be guilty of other crimes.”).

162. *Red Herring*, FALLACY FILES, <http://www.fallacyfiles.org/redherrf.html> (last visited Mar. 8, 2013) (“The name of [the red herring] fallacy comes from the sport of fox hunting in which a dried, smoked herring, which is red in color, is dragged across the trail of the fox to throw the hounds off the scent. Thus, a ‘red herring’ argument . . . distracts the audience from the issue in question through the introduction of some irrelevancy.”). Red herrings show up frequently, particular in politics. See, e.g., Dana Milbank, *Santorum’s New Cause: Opposing the Disabled*, WASH. POST (Nov. 26, 2012), [http://www.washingtonpost.com/opinions/santorums-new-cause-opposing-the-disabled/2012/11/26/9ab0605a-3829-11e2-b01f-5f55b193f58f\\_story.html](http://www.washingtonpost.com/opinions/santorums-new-cause-opposing-the-disabled/2012/11/26/9ab0605a-3829-11e2-b01f-5f55b193f58f_story.html) (“But the opposition is significant, because it shows the ravages of the Senate’s own disability: If members can’t even agree to move forward on an innocuous treaty to protect the disabled, how are they to agree on something as charged as the “fiscal cliff?””).

163. ALDISERT, *supra* note 6, at 638 (“The fallacy of irrelevance can be most deceptive, for the presentation may seem very cogent, obscuring the fact that a question different from the one under consideration is being discussed.”).

164. *Perry v. New Hampshire*, 132 S. Ct. 716, 721 (2012).

165. *Suggestive Eyewitness Identifications*, *supra* note 135, at 250–51.

166. *Dunnigan v. Keane*, 137 F.3d 117 (2d Cir. 1998), *abrogated by Perry*, 132 S. Ct. at 723 n.4; *United States v. Bouthot*, 878 F.2d 1506 (1st Cir. 1989), *abrogated by Perry*, 132 S. Ct. at 723 n.4; *Thigpen v. Cory*, 804 F.2d 893 (6th Cir. 1986), *abrogated by Perry*, 132 S. Ct. at 723 n.4. The First Circuit had clarified quite succinctly the “real” issue of the original *Biggers* analysis:

Because the due process focus in the identification context is on the fairness of the trial and not exclusively on police deterrence, it follows that federal courts should scrutinize all suggestive identification procedures, not just those orchestrated by the police, to determine if they would sufficiently taint the trial so as to deprive the defendant of due process.

*Bouthot*, 878 F.2d at 1516.

167. See *Perry*, 132 S. Ct. at 720–21 (“We have not extended pretrial screening for reliability to cases in which the suggestive circumstances were not arranged by law enforcement officers.”); *State v. Addison*, 8 A.3d 118, 126 (N.H. 2010) (“The majority of federal and state courts agree that an allegedly suggestive pre-trial identification must be the result of state action in order to affect the admissibility of a later in-court identification.”).



the Court reasons, that when there is no police misconduct, “the proper remedy for any alleged suggestiveness” must be “cross examination and argument.”<sup>168</sup> Ironically, the new *Biggers* analysis, which was a due-process rule aimed at preventing likely unreliable eyewitness identifications from persuading jurors, has transformed into a rule that permits likely unreliable identifications.<sup>169</sup> This is because the Court’s reasoning commits the fallacy of irrelevant thesis.

Related to the fallacy of irrelevance is the cognitive bias called *bounded awareness*, “the phenomenon where individuals fail to see, seek, use, or share highly relevant, easily accessible, and readily perceivable information during the decision-making process.”<sup>170</sup> The human mind can focus on only a fraction of everyday experience because of its limited cognitive power to multitask.<sup>171</sup> Despite feeling otherwise, “we are not as good at multitasking as we’d like to believe.”<sup>172</sup>

Again, the real issue in the *Biggers* analysis may differ very subtly from what the state court and the Supreme Court acknowledged. Because state supreme courts have very busy dockets, it seems fair to say that they do a lot of multitasking. It is also very reasonable to consider that the court experiences bounded awareness during the decision-making process. There is only so much information the court can consider before it is bound to miss information that is relevant, accessible, and perceivable. The fact that the state court issued only a short memorandum opinion, which relied almost entirely on a separate case it had recently decided, may be slight evidence that the court is multitasking. The court’s bounded awareness—its failure to

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168. *Addison*, 8 A.3d at 126 (quoting *State v. King*, 934 A.2d 556, 561 (N.H. 2007)).

169. Due process is a guarantee to the individual standing trial that all aspects of the trial will be fair. While generally acting as a safeguard against state misconduct, due process is not limited to preventing only unfairness created by actors on the state’s payroll. While it is true that false identifications can and do result from state-created suggestiveness, it is false that false identifications result only from state-created suggestiveness. False identifications can and do occur without any improper state conduct at all, or even without any suggestiveness. See APA Amicus Brief, *supra* note 133, at 13 (“Conversely, eyewitness testimony can be reliable even when suggestiveness (state-created or otherwise) does exist, for example, when other factors reinforce the accuracy of an identification made in circumstances that otherwise would be questionable.”).

170. BREST & KRIEGER, *supra* note 14, at 244 (internal quotation marks omitted).

171. *Id.*

172. *Id.*

see and use the readily perceivable and highly relevant psychological research showing that state-created suggestiveness is irrelevant to the issue of reliability—was likely the faulty reasoning process behind the new *Biggers* rule, which also seems to commit the fallacy of irrelevant thesis.

In addition, the court's new rule incorrectly allowed Nubia Blandon's highly unreliable, out-of-court identification testimony to convict Barion Perry. Contrary to the court's claim that there was no state-created suggestiveness, Blandon's testimony at trial that she never pointed out Perry but relied on the police arriving in time to find out who the man was, is evidence that the suggestive circumstances were roughly the same as an unofficial showup. Showups that occur with a suspect in police custody, whether handcuffed, in a police cruiser, or merely standing with a police officer, can create even more incorrect eyewitness identifications, "not because of recognition, but because of witness deduction ('Gee, this must be the criminal because the police have him in handcuffs.')."173 Bounded awareness explains Blandon's inability to identify Perry as the man who broke into Clavijo's car. Bounded awareness also explains the trial judge's inexplicable statement: "The fact that Mr. Perry was standing in the parking lot with Officer Dunn was coincidental."174

#### *B. Fallacy of Exclusion and Confirmation Bias*

One commits the *fallacy of exclusion* if her argument excludes undermining counterevidence or her premises come from a biased selection of the available evidence.<sup>175</sup> An example of the fallacy of exclusion is the testimony of the state troopers in *Robinson v. State*.<sup>176</sup> Based on their long years of experience as state troopers, including many encounters with crack cocaine, the troopers testified that the eight rocks found in the baggie, which Robinson later swallowed, were in fact crack cocaine.<sup>177</sup> Because the prosecution had no other

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173. LOFTUS ET AL., *supra* note 32, § 4-7, at 92.

174. Joint Appendix at \*86a, *Perry v. New Hampshire*, 132 S. Ct. 716 (2012) (No. 10-8974).

175. Stephen Downes, *Fallacy of Exclusion*, STEPHEN'S GUIDE TO LOGICAL FALLACIES (May 26, 1995), <http://onegoodmove.org/fallacy/exclus.htm>.

176. *Robinson v. State*, 702 A.2d 741 (Md. 1997); *see supra* Part IV.A.

177. *Robinson*, 702 A.2d at 751.

evidence to prove that the substance Robinson ingested actually was crack cocaine, the troopers' opinion testimony was essential to the case. That the appellate court—an institution far more removed from encounters with street drugs than the troopers—focused its opinion on the prevalence of synthetic, lookalike drugs suggests that the troopers (or at least the prosecutors) very likely knew about the prevalence of such counterfeit drugs.<sup>178</sup> Yet the troopers (understandably) never mentioned the lookalike drugs; it was a fact that directly undermined the persuasiveness of their testimonies. Is there an alternate explanation for why the troopers might have withheld, or at least discounted as unimportant, the undermining fact about the prevalence of lookalike drugs?

After conducting extensive research in cognitive psychology, Dan Sperber and Dr. Hugo Mercier came to a profound conclusion: Most people are not as interested in “finding the truth as much as they are hell bent upon justifying their own views and thoughts.”<sup>179</sup> People will often refuse even to consider opposing views, “no matter how weighty and convincing they may be.”<sup>180</sup> This tendency to cling to our own beliefs—looking to evidence that supports while rejecting evidence that contradicts those beliefs<sup>181</sup>—is known as *confirmation bias*.<sup>182</sup> Confirmation bias helps to explain why people ignore the scientific method's basic rule of “testing hypotheses by trying to refute them”: people “seek data that are likely to be compatible with the beliefs they currently hold.”<sup>183</sup>

Confirmation bias also describes the tendency for our expectations to affect our perceptions and the tendency to base conclusions on preexisting ideas instead of actual facts. While sometimes explained by fervent ideological or religious beliefs, the motivation to

178. *Id.* at 750.

179. AQ Khan, *Mentality, Self-Deception and Psychology*, NEWS INT'L (Dec. 5, 2011), <http://www.thenews.com.pk/TodaysPrintDetail.aspx?ID=80840&Cat=9>.

180. *Id.*

181. Metzger, *supra* note 18, at 477 (stating that “evidence indicates that we are also strongly predisposed against seeking out information that would contradict our beliefs” and that “we are strongly motivated to search out information that confirms our beliefs”).

182. BREST & KRIEGER, *supra* note 14, at 278; Phoebe C. Ellsworth, *Legal Reasoning and Scientific Reasoning*, 63 ALA. L. REV. 895, 904 (2012) (“Confirmation bias is the tendency to seek, believe, and remember information that agrees with what we already think.”).

183. KAHNEMAN, *supra* note 89, at 1417–18.

avoid disconfirming evidence may be explained by a desire to remain consistent—fulfilling the need for personal adequacy.<sup>184</sup> When a person abandons a publicly announced view, she might lose the esteem of others; but when she abandons a privately held view, she risks lowering her own self-esteem.<sup>185</sup> Thus, while the legal system is concerned with finding the truth, “people are often motivated to be far less critical of facts and arguments that support their preferred result than an unpreferred one.”<sup>186</sup>

Let’s return to the state troopers. The troopers’ susceptibility to confirmation bias—or “tunnel vision”<sup>187</sup>—might account for them committing the fallacy of exclusion in their trial by omitting details about the synthetic, lookalike drugs. The troopers first formed an opinion that the rocks were crack cocaine based on their past experience of searching people and finding cocaine packaged in similar transparent baggies. The troopers opinion was further confirmed when Robinson attacked them at the station and swallowed the baggie. Since Robinson was in violation of parole, getting caught with illegal drugs likely meant he would be headed back to jail. To avoid the inevitable, Robinson found a way to get rid of the evidence. Furthermore, the troopers had no reason to believe that Robinson had ingested a lookalike drug once it was evident that Robinson required serious medical attention. Thus, the state troopers’ perceptions confirmed their pre-existing biases, and they testified according to the truth and justice as they saw it. But their good-faith testimony was ruled to be unduly persuasive since it lacked a rational connection to their actual perceptions.

### *C. Fallacy of Style over Substance and the Framing Effect*

Not only is the individual affected by the strength of the evidence but also the way the evidence is presented. A recent study measuring the accuracy with which people make probability judgments found

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184. *Id.* at 280.

185. *Id.*

186. *Id.*

187. Ellsworth, *supra* note 182, at 906 (explaining that “tunnel vision” is a form of “confirmation bias, in this case confirmation of the guilt of an initial suspect, [and] may be an important contribution to false convictions”); *see also* sources cited *supra* note 113.

that when separate pieces of evidence are presented one at a time, rather than all at once, the evidence is perceived to be stronger.<sup>188</sup> Participants were shown on a computer screen two large lakes, each containing four colors of fish in varying proportions, and both lakes flowed into a single pond below. First, three fish were shown in the pond below, and then the lakes above were populated with the different colored fish, either all at once or sequentially, one color of fish at a time (e.g., first the yellow fish, then the white fish, then the black fish, then the red fish). Participants then rated the probability that the three fish came from one upstream lake, Lake A, rather than the other upstream lake, Lake B. When researchers added the fish gradually to one lake, participants concluded that the evidence was stronger that the fish came from that upstream lake rather than the other.<sup>189</sup>

This study is a perfect example of using the informal fallacy of style over substance to play upon the cognitive bias known as the framing effect. *Style over substance* occurs when the arguer's style of presenting her argument is perceived to add to the strength or substance of the argument.<sup>190</sup> And the *framing effect* happens when people can draw different conclusions from identical information based solely on how the information is presented.<sup>191</sup> Thus, the prosecutor who in closing arguments recounts five pieces of damning evidence in quick succession will be perceived as having a weaker argument than the defense attorney who methodically describes, one at a time, three pieces of exculpatory evidence.

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188. Nicole Jardine, *How People Are Fooled by Evidence: The 'One at a Time' Effect Changes How Facts Are Interpreted*, SCI. AM. (Nov. 22, 2011), <http://www.scientificamerican.com/article.cfm?id=how-people-are-fooled-by-evidence>.

189. Jennifer C. Whitman & Todd S. Woodward, *Evidence Affects Hypothesis Judgments More if Accumulated Gradually than if Presented Instantaneously*, 18 PSYCHONOMIC BULL. & REV. 1156, 1162–63 (2011), available at <http://www.springerlink.com/content/0587663184524111/fulltext.pdf>.

190. Dowden, *supra* note 61.

191. Steven Bradley, *The Framing Effect: Influence Your Audience by Setting the Context*, VANBLOG (June 7, 2010), <http://www.vanseodesign.com/web-design/framing-expectation-exposure-effect>.

*D. Fallacy of Emotive or Loaded Language and Suggestibility*

The wording of questions asked an eyewitness has a pervasive influence on the answer given.<sup>192</sup> The informal fallacy of *loaded language* is “emotive terminology that expresses value judgments.”<sup>193</sup> When used in what might appear to be an objective statement, loaded language “can cause the listener to adopt those values when in fact no good reason has been given for doing so.”<sup>194</sup> In one of her well-known studies, Elizabeth Loftus showed participants films of car accidents and then asked them a question, with the goal of substituting one word in the question to see whether it would affect qualitative judgments—in this case, judgments about the relative speed of the cars.<sup>195</sup> The base question was, “About how fast were the cars going when they *hit* each other?”<sup>196</sup> Other participants were asked the same questions except the verb *hit* was replaced with “contacted,” “bumped,” “collided,” and “smashed.”<sup>197</sup> The difference in the verbs was “in what they imply about speed and force of impact.”<sup>198</sup> Those asked about “smashed” gave the highest speed estimates (40.8 mph), while those asked about “contacted” gave the lowest speed estimates (30.8 mph). The legal system’s recognition of these nuanced differences in the wording of questions developed through rules for the permissible use of “leading questions.”<sup>199</sup>

The cognitive bias of *suggestibility* is a “close cousin of misattribution,” where ideas suggested by a questioner are mistaken for one’s own memory.<sup>200</sup> After researchers showed a group of volunteers the first episode of the television show, “24,” the volunteers either

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192. LOFTUS ET AL., *supra* note 33, § 3-11(a), at 70–71.

193. Dowden, *supra* note 61; *Loaded Words*, FALLACY FILES, <http://www.fallacyfiles.org/loadword.html> (“A word or phrase is ‘loaded’ when it has a secondary, evaluative meaning in addition to its primary, descriptive meaning. When language is ‘loaded,’ it is loaded with its evaluative meaning. A loaded word is like a loaded gun, and its evaluative meaning is the bullet.”).

194. Dowden, *supra* note 61.

195. LOFTUS, *supra* note 19, at 96–97.

196. *Id.* at 96 (emphasis added).

197. *Id.*

198. *Id.*

199. *Id.* at 97.

200. Jeremy Dean, *When Suggestibility Is a Liability: Wrongful Convictions*, PSYBLOG (Feb. 19, 2008), <http://www.spring.org.uk/2008/02/when-suggestibility-is-liability.php>.

played a game or took an immediate recall test about the episode. Both groups were then told false information about the show they had watched and then took a final memory test about the episode. Interestingly, the group who took a recall test immediately after they watched the show were “almost twice as likely to recall false information compared to the volunteers who played the game following the episode.”<sup>201</sup> The results suggested that the first recall test actually “enhanced learning of new and erroneous information,” showing that “recently recalled information is prone to distortion.”<sup>202</sup>

When an investigator uses loaded language to question an eyewitness immediately after an event, the cognitive bias of suggestibility makes the eyewitness’s account prone to distortion. This is particularly true after a highly traumatic event because the eyewitness’s emotional levels are already aroused. Investigators may feel they are attempting to help the eyewitness to *recall* the event; the truth is that the investigator is helping the eyewitness to *reconstruct* the event. The formal rules that guard against leading questions in the court room cannot prevent an interviewer on the scene from inadvertently changing the witness’s memory.

#### *E. Poisoning the Well, the Straw Man, and Cognitive Dissonance*

The informal fallacy of *poisoning the well* is an attempt to prevent disagreement by negatively characterizing people who disagree and positively characterizing people who agree with the speaker’s position.<sup>203</sup> For example, a prosecutor poisons the well when he says: “When is the defense attorney planning to call that twice-convicted child molester, David Barnington, to the stand? OK, I’ll rephrase that. When is the defense attorney planning to call David Barnington to the stand?”<sup>204</sup> A juror who then becomes unreceptive to Mr. Barn-

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201. *Did I See What I Think I Saw?*, SCI. DAILY (Jan. 30, 2009), <http://www.sciencedaily.com/releases/2009/01/090128160835.htm>.

202. *Id.*

203. *Poisoning the Well*, FALLACY FILES, <http://www.fallacyfiles.org/poiswell.html> (last visited Feb. 11, 2013) (“The phrase ‘poisoning the well’ ultimately alludes to the medieval European myth that the black plague was caused by Jews poisoning town wells—a myth which was used as an excuse to persecute Jews.”).

204. Dowden, *supra* note 61.

ington's testimony has become "a victim of the poisoner."<sup>205</sup> Legal arguments may also poison the well against a position. For instance, in an 1872 debate over a bill to require that schools be desegregated, Senator Eli Saulsbury of Delaware said it was "treason to the white race" to support the bill. Any senator who then supported the bill risked drinking from the poisoned well and bearing the title of a traitor.

Another informal fallacy that often complements a well poisoning is the *straw man*—a fallacious argument that handily defeats an opposing viewpoint by hastily dismantling and reassembling an overly simplified or distorted version of it.<sup>206</sup> Turning back to the example of a man's family who sues the helicopter manufacturer after the man died in a helicopter crash,<sup>207</sup> the defense attorney's closing argument would contain a straw man if she argued the following:

Plaintiffs have argued that my client—a company made up of highly skilled engineers who always triple- and quadruple-check every component on each helicopter before they are satisfied it is safe to sell—killed their dad; that their dad would be alive had my client never manufactured the helicopter that the pilot allowed to crash. But think about it. That's like saying, "Remington killed my dad, because he would still be alive had Remington never manufactured the rifle that my dad's hunting buddy allowed to go off."

A couple of things go wrong with this argument. Besides containing a *false analogy*,<sup>208</sup> the argument sets up a stilted re-creation of the opposing argument—just as a "straw man" is a re-creation of a real man—and easily defeats the argument, or knocks it down.<sup>209</sup>

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205. *Id.*

206. *Straw Man*, FALLACY FILES, <http://www.fallacyfiles.org/strawman.html> (last visited Mar. 5, 2013) ("A straw man argument occurs in the context of a debate . . . when one side attacks a position—the 'straw man'—not held by the other side, then acts as though the other side's position has been refuted.").

207. See *supra* notes 11–12 and accompanying text.

208. *False Analogy*, CHANGINGMINDS.ORG, [http://changingminds.org/disciplines/argument/fallacies/false\\_analogy.htm](http://changingminds.org/disciplines/argument/fallacies/false_analogy.htm) (last visited Mar. 6, 2013) ("Analogy is saying 'A is like B' and is a powerful way of explaining one thing in terms of another. Where it falls down is when A is assumed to be like B in all respects and any attribute or characteristic of B can be unequivocally attributed to A.").

209. E.g., Bryan A. Garner, *What's an Error in Language?*, ABA J., Dec. 2012, at 20 ("Before I discourse more on that tricky point, let me dispel the idea that I set up and knock down straw



The cognitive bias most related to these informal fallacies is *cognitive dissonance*<sup>210</sup>—a state of psychological discomfort that occurs when a person holds two inconsistent cognitions at the same time.<sup>211</sup> Cognitions include “knowledge, opinions, beliefs, values, and awareness of” one’s actions.<sup>212</sup> There are three strategies a person may use to reduce the feeling of dissonance: (1) discount the importance of conflicting cognitions to maintain the status quo, (2) add new cognitions that justify the behavior or belief, (3) or change the behavior or belief.<sup>213</sup> For example, a juror presented with conflicting theories of a case experiences cognitive dissonance and must resolve the inconsistency through one of these strategies to decide which theory is correct. While dissonance always occurs in the decision-making process, dissonance involving self-conception, such as feelings of foolishness or immorality, is a particularly powerful motivator.<sup>214</sup> The greater the importance or impact of a decision, the greater the dissonance one will experience.<sup>215</sup>

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men (even the most gender-neutral writer can’t insist on straw people).”).

210. See generally LEON FESTINGER, *A THEORY OF COGNITIVE DISSONANCE* (1957).

211. See BREST & KRIEGER, *supra* note 14, at 366; Simon, *supra* note 10, at 46–47 (“Festinger explained that dissonance is aroused by the fact that choosing between competing alternative courses of action entails endorsing some unattractive attributes and foregoing [sic] some attractive ones.”).

212. James P. Monacell, Comment, *An Application of Cognitive Dissonance Theory to Resentencing and Other Reappearances by the Same Judge*, 1 *LAW & HUM. BEHAV.* 385, 387 (1977).

213. See BREST & KRIEGER, *supra* note 14, at 366; Simon, *supra* note 10, at 49 (“Dissonance is reduced by way of *spreading apart* the decision alternatives: this typically entails buttressing one alternative by highlighting its positive features and playing down its negative ones, and derogating the competing alternative via emphasizing its negative features and minimizing its positive ones.”).

214. *Cognitive Dissonance*, CHANGINGMINDS.ORG, [http://changingminds.org/explanations/theories/cognitive\\_dissonance.htm](http://changingminds.org/explanations/theories/cognitive_dissonance.htm) (last visited Feb. 6, 2012). Dan Simon also noted this idea:

[D]issonance is deemed to arise between the acknowledgment of the behavior (“I just behaved in manner X”) and the original attitude (“I believe that behavior X is wrong”). Dissonance occurs because of the tension between the positive self-conception (“I am a moral person”) and the negative cognition (“I just behaved in an immoral way”). Dissonance-reduction is a means of alleviating this tension. By altering the original belief to “I believe that behavior X is appropriate,” the dissonance is reduced.

Simon, *supra* note 10, at 52 n.218.

215. See *Cognitive Dissonance*, *supra* note 214.

The persuasive lawyer knows that “[c]ognitive dissonance is central to many forms of persuasion to change beliefs, values, attitudes and behaviors.”<sup>216</sup> Poisoning the well can be particularly beneficial at winning over jurors who are motivated to reduce dissonance about self-image. Consider Justice Scalia’s dissent from denial of certiorari:

If it is uncertain how this Court will apply *Sykes* and the rest of our ACCA cases going forward, it is even more uncertain how our lower-court colleagues will deal with them. Conceivably, they will simply throw the opinions into the air in frustration, and give free rein to their own feelings as to what offenses should be considered crimes of violence—which, to tell the truth, seems to be what we have done. (Before throwing the opinions into the air, however, they should check whether littering—or littering in a purposeful, violent, and aggressive fashion—is a felony in their jurisdiction. If so, it may be a violent felony under ACCA; or perhaps not.)<sup>217</sup>

In a somewhat subtle way, Justice Scalia wins over his reader by negatively characterizing the rest of the Court through visual imagery—painting a distinctly memorable image of the confusion that will surely come. If a lower-court judge had not yet formed an opinion about the Court’s ACCA cases before reading the paragraph above, Justice Scalia forced that judge to decide. Dissonant thoughts about frustration and confusion quickly force the reader to make up her mind.

## V. CONCLUSION

Perception and persuasion have a much closer link than we may consciously realize. This is helpful in understanding why people may perceive arguments that employ informal fallacies as being particularly persuasive. Yet informal fallacies should not be viewed with an eye toward completely avoiding them—at least not in the law. Truth and justice hold a unique place together in the legal world. This is why the lawyer has a different end goal than both the sophist and the philosopher: the lawyer’s attempt to seek justice for his client is presumed to be in line with truth. And the skilled, persuasive lawyer

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216. *Id.*

217. *Derby v. United States*, 131 S. Ct. 2858, 2859–60 (2011) (Scalia, J., dissenting from denial of certiorari).

knows that pure appeals to reason alone using deductive reasoning and syllogisms are not sufficient to win his client's case. The lawyer understands persuasive advocacy, but he does not always recognize the labels that other disciplines have given his rhetorical techniques.

Informal fallacies and cognitive biases are both errors in reasoning. Reasoning is both a mental and a verbal activity. Reasoning, then, includes the mental process of creating an argument, the oral process of reciting an argument, and the mental process of evaluating another person's argument. To use a simple analogy, informal fallacies and cognitive biases are two sides of the same coin—one side represents faulty verbal or written reasoning, and one side represents faulty mental reasoning. Informal fallacies describe the argument, while cognitive biases describe the faulty mental processes of both the arguer and the listener.

But errors in reasoning are not necessarily a bad thing, because not all people are perfectly rational. Informal fallacies can get a person to become interested and actually care about the outcome in a case. And cognitive biases can be useful in making sense of the millions of stimuli in the world. In fact, informal fallacies, when used in moderation, should be viewed positively as persuasive tools that tend to induce errors in the way that other people process and think about information. They are used to manage what people perceive and eventually believe. Fair persuasion is not involved in trying to bend other people's wills to our own but in helping others to see things the same way we do.

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