ESSAY

What Kahneman Means for Lawyers: Some Reflections on *Thinking, Fast and Slow*

*Charles W. Murdock* and *Barry Sullivan*

**INTRODUCTION**

As academic lawyers, we are meant to extol rational thinking. After all, one of the main purposes of law school is to enable students to “think like a lawyer,” meaning logically, rationally, and unencumbered by “emotion” or irrelevant considerations. Law and economics is similar—it is predicated upon the premise that “economic man” acts rationally and consistently. In the case of law and economics, of course, acting rationally also means acting to increase utility.

But these models do not always reflect the reality of human life. Aristotle famously emphasized that man is a rational animal.1 Aristotle, however, also understood that human beings are not moved by logic alone; that different kinds of subjects are susceptible to different kinds of proof and can be known with differing degrees of certainty; that different audiences are persuaded by different kinds of arguments; and that one who wishes to persuade must be mindful, among other things, of who his audience is.2 Aristotle was interested in how people think

---


2. *Aristotle, The Art of Rhetoric* 140–41 (Hugh Lawson-Tancred ed., 1991) (“But since the objective of rhetoric is judgment (since men give judgment on political issues and a court case is a judgment), we must have regard not only to the speech’s being demonstrative, but also to establishing the speaker himself as of a certain type and bringing the giver of judgment into a
and how they can be persuaded. So, too, is Daniel Kahneman. His insightful and provocative book, *Thinking, Fast and Slow*, is the product of a lifetime of scholarly investigation into this subject and should be required reading for anyone interested in persuasion.

I. THE DISTINCTION BETWEEN THINKING FAST AND THINKING SLOW

What does the title of Professor Kahneman’s book mean? The title reflects Professor Kahneman’s belief that human beings think in two very different ways: “fast” or intuitive thinking, which he calls “System 1,” and “slow” or deliberate thinking, which he calls “System 2.” Since Professor Kahneman understands the irresistible lure of a memorable image, however, he certainly will not be offended if we begin by trying to illustrate “fast” and “slow” thinking, not by reference to the System 1 and System 2 language he uses, but by means of an image used by Jonathan Haidt in *The Righteous Mind*, a recent book that is deeply influenced by Professor Kahneman’s work. While the main thrust of Professor Haidt’s book is to contrast the value systems of liberals and conservatives, the book uses the arresting image of an elephant and its rider to illustrate the “thinking, fast and slow” dichotomy. For Professor Haidt, the elephant represents intuitive, instinctive, or “fast” thinking, while the rider represents deliberative, rational, or “slow” thinking. The relationship and interaction of Professor Haidt’s elephant and rider are analogous to the relationship and interaction of Professor Kahneman’s System 1 and System 2.

With respect to the image of the elephant and the rider, conventional thinking would hold that the rider controls the elephant. Such thinking would certainly hold true if the image were that of a horse and rider—one would immediately envision a rider lightly holding reins against a horse’s neck, gently pointing him in one direction or another, the horse...
responding without question or delay. According to Professor Haidt, however, the point of the elephant and rider image is that the rider is not in charge; the rider generally yields to the elephant’s will, going along where the elephant has decided to go, and only occasionally taking charge himself.7

One of the interesting aspects of the elephant and rider image is the relative size of the elephant and the rider. Just as the elephant dwarfs the rider, the myriad decisions that we instinctively or reflexively make dwarfs the number of decisions we make by means of our conscious, focused, and deliberative decision-making processes. Much of the time, the elephant does well by us; many of our instinctive decisions turn out to be correct, in part because our instincts are largely the distilled product of experience. On other occasions, however, instinct does mislead us; instinct causes us to replace a difficult question with one that is easier to answer, and the easier question not infrequently produces the wrong answer. As the great New York Yankees catcher Yogi Berra reportedly said, “You’ve got to be very careful if you don’t know where you are going because you might not get there.”8 When the elephant leads us astray, the results can be disastrous.

II. THE PROBLEM OF ANSWERING THE WRONG QUESTION

Surely many of the principles of human thought that Professor Kahneman draws from his wealth of experimental knowledge will resonate with lawyers. For example, consider this question from Professor Kahneman’s book, and see how you would respond: If a bat and a ball together cost $1.10, and the bat costs a dollar more than the ball, what does the ball cost?9

What was your quick response? What seems at first blush to be a simple question is actually a fairly difficult one. Someone with good mathematical instincts might come quickly to the correct answer; otherwise, the problem can be solved using two algebraic equations with two unknowns—the bat and the ball.10 But that requires time and a bit of work. It also requires, in Professor Kahneman’s terms, that System 2 be able to override System 1.

What Professor Kahneman demonstrates is that when we are

---

7. Id. at 67–70.
9. KAHNEMAN, supra note 3, at 44.
10. Bat + ball = $1.10; bat – ball = $1.00. Adding the two equations together, the result is: 2 bats = $2.10; therefore, the bat equals $1.05 and the ball equals $0.05. Id. at 44–45.
confronted with a hard question, we instinctively reframe the question into an easier question that we can answer. In the bat-and-ball example, we intuitively reframe the question into a very different, much easier, one: If a bat and a ball together cost $1.10 and the bat costs $1.00, what does the ball cost? Here, instead of conceptualizing the question as a somewhat difficult algebra problem involving two equations with two unknowns, we substitute a simple arithmetic problem involving subtraction, and come up with the incorrect answer of ten cents.

According to Professor Kahneman, the problem has been put to thousands of university students. “More than 50% of students at Harvard, MIT, and Princeton gave the intuitive—incorrect—answer.”11 In other studies, more than 80% came up with the wrong answer.12 To verify Professor Kahneman’s results, we asked this question to dozens of people, with the overwhelming majority of responses putting the cost of the ball at ten cents, not the correct answer of five cents. As Professor Kahneman observes, the bat-and-ball problem demonstrates that “many people are overconfident, prone to place too much faith in their intuitions.”13

III. THE IMPORTANCE OF ANSWERING THE RIGHT QUESTION AT TRIAL

What is the relevance of this to lawyers and, in particular, to trial lawyers? Law students have some difficulty at first with the idea of “prepping” a witness for a deposition or trial. For many students, the initial concern is a suspicion that the purpose of “prepping” a witness is to give the witness “keys” as to how a question should be answered, or, worse still, to suborn perjury. Why, the beginning law student wonders, should anyone need “prepping” just to give truthful testimony? Of course, there are many reasons why trial lawyers find it necessary to “prep” witnesses—for instance, to hear the witness’s story in detail before it is recited in a formal way in public; to see how the details of the witness’s story relate to other facts or narratives learned during the course of investigation; to learn which parts of a case are within the personal knowledge of a particular witness, and which parts will have to be proved through other witnesses; and to see how a particular witness may react, either to a specific question or set of questions or to a certain style of questioning.

Trial lawyers also want to ensure that witnesses do their homework by reviewing all the relevant materials before telling their stories under

11. Id. at 45.
12. Id.
13. Id.
oath. Many witnesses do not enjoy the prospect of having to give testimony and want to think about doing so as little as possible for as long as possible. But the witness’s experience at trial will be even more unpleasant if opposing counsel has the opportunity to impeach the witness repeatedly because of statements the witness made at an earlier stage, based on unrefreshed recollection, and without having bothered to review all the available materials. The same is true of the witness who proceeds to testify at trial without having reviewed all of his or her prior sworn statements. Lawyers prepare witnesses to make sure that those things do not happen.

Lawyers also want to give witnesses some idea of the subjects that may be raised during direct or cross-examination, whether at trial or deposition, and if a witness has not testified frequently in the past, lawyers will want to give the witness some sense of what answering a lawyer’s questions, whether on direct or cross-examination, may be like. Staying calm while answering possibly hostile questions in the formal setting of a courtroom is hard work and far from a familiar experience for many people who find themselves in that position.

From Professor Kahneman’s perspective, however, the most important thing about witness preparation may be working with the witness to make sure that he or she will answer the right question—that is, the question that was actually asked—rather than the easy question that comes to the witness’s mind. When a trial lawyer prepares a witness, four of the things he or she invariably will say most often to the witness are: (1) “I’m going to repeat the question. Please listen carefully to the question”; (2) “Don’t volunteer”; (3) “How do you know that?”; and (4) “If you don’t understand the question, please say you don’t understand the question.”

Most people, especially experts, do not want to appear hesitant, let alone admit that they do not know the answer to a question. In addition, most people cannot stand silence. Consequently, a witness will often talk—simply to fill the silence—until she thinks of something relevant to say. Alternatively, as Professor Kahneman suggests, a witness might substitute a question she can answer for the question that she found difficult to answer, thereby answering a question that was not asked. That response may precipitate a cascade of questions that the witness has not thought about and is not prepared to answer, especially under the stress of testifying. In either case, the witness will have needlessly undermined the value of her testimony.

Trial lawyers try to prevent that from happening; they try to imagine

14. *Id.* at 97–105.
as many lines of cross-examination as possible and then put those questions to the witness during the preparation sessions. If a witness is not expecting a question or is caught by surprise, almost by definition the question will be a hard one. The trial lawyer’s fear is that the witness will “wing it” and answer some question other than the question that was asked. In one reported case, a widow, Ms. O’Connor, was fleeced of her money by an unscrupulous stockbroker.\textsuperscript{15} To prevail on her Rule 10b-5 claim, Ms. O’Connor was required to prove that the broker acted with scienter.\textsuperscript{16} However, when Ms. O’Connor was asked at deposition whether the broker had \textit{intended} to defraud her, she responded by acknowledging that he “did not intend to defraud or hurt her.”\textsuperscript{17}

The question was a difficult one because it required Ms. O’Connor to get inside the head of the broker to discern his state of mind and intentions. Indeed, Ms. O’Connor’s lawyer should have objected to the question for that reason.\textsuperscript{18} The question also required the making of a moral judgment, which many people, even those who have been fleeced, may be reluctant to make. For these reasons, Ms. O’Connor probably reframed the question intuitively as follows: “Did you think that the broker \textit{would} defraud you?” This is an easier question, to which the answer is obviously “no,” since the widow never would have entrusted her money to the broker if she had believed that he would defraud her. By answering the wrong question, however, Ms. O’Connor dealt a fatal blow to her case.\textsuperscript{19}

IV. THE SIGNIFICANCE OF “PRIMING” FOR LAWYERS

“Priming” is another concept that trial attorneys intuitively understand and frequently use.\textsuperscript{20} Priming—or “anchoring”—means taking advantage of the effect that starting with a specific number has upon the plausibility of another, or, in other circumstances, the effect that the mentioning of one word or fact has upon the acceptability of others that are to follow. Lawyers regularly make use of this technique. In a closing argument to the jury, for example, is a plaintiff’s lawyer

\begin{quote}
\textsuperscript{16} Id. at 896.
\textsuperscript{17} See id. (“The [district] court found persuasive deposition testimony by Ms. O’Connor where she admitted Mr. Foulke did not intend to defraud or hurt her.”).
\textsuperscript{18} An objection to this particular line of questioning as calling for speculation on the part of the witness would likely have been sustained.
\textsuperscript{19} The Tenth Circuit affirmed the district court’s grant of summary judgment against Ms. O’Connor and in favor of the defendants. O’Connor, 965 F.2d at 903.
\textsuperscript{20} See KAHNEMAN, supra note 3, at 52–58, 119–28.
\end{quote}
What Kahneman Means for Lawyers

more likely to suggest the most reasonable or conservative measure of damages or the highest possible number that would not look like gross overreaching? Clearly, the plaintiff’s lawyer will suggest the highest possible number that is not simply implausible. When used by a plaintiff’s lawyer, priming is meant to increase the opening bid and raise the threshold for what the jury might ultimately deem to be a reasonable damages award.

The effect of priming is well illustrated by an experiment conducted at the Exploratorium, a museum in San Francisco. Two groups of visitors were asked to guess the height of the tallest redwood, but the question was framed in two different ways. One group was asked the following: Is the height of the tallest redwood tree more or less than 1200 feet? What is your best guess about the height of the tallest redwood? A second group was asked the same two questions, but 180 feet was used as the priming or anchoring reference rather than 1200 feet. The group that answered the first version of the question produced a mean estimate of 844 feet for the height of the tallest redwood. The second group, however, provided a mean estimate of 282 feet for the height of the redwood—much closer to the tree’s actual maximum height. The results of this experiment illustrate that even an absurd number, such as a tree height of 1200 feet, can have a powerful priming effect.

It is not just numbers, but also words, that can have a priming effect. Professor Kahneman uses the juxtaposition of two words—banana and vomit—to illustrate the effect of priming and associative coherence. The word “vomit” invariably conjures up negative images and, from a causative perspective, evokes the thought of unpleasant sickness or intoxication. One would not normally expect to see the two words, banana and vomit, juxtaposed—surely, most people do not have unpleasant experiences from eating bananas. But Professor Kahneman suggests that this juxtaposition will cause a temporary aversion to

21. See id. at 123–24.


23. By way of comparison, the John Hancock Tower in Chicago is 1127 feet in height; the Eiffel Tower in Paris is 1050 feet; and the Spire or Monument of Light, which soars above O’Connell Street in Dublin, is 398 feet.

24. See KAHNEMAN, supra note 3, at 50–51. The latter concept, “associative coherence,” is the operation of System 1 that seeks to create a coherent causal story. It is illustrated by the current example and, particularly, in the following section, which discusses the instinct for a coherent story. This theme is continued in the discussion of stereotypes (infra Part VI), first impressions (infra Part VII), and confirmatory bias (infra Part VIII).
bananas, apparently because of System 1’s drive to fashion a coherent story, one of the aspects of which is causation. Correlation or coincidence, and even simple juxtaposition, can become synonymous with causation. The mere juxtaposition of the two words creates the mental impression that bananas cause vomiting.

What is the significance of priming for lawyers? Since lawyers necessarily are wordsmiths, we have some instinctive appreciation for the suggestive power of pejorative and other evocative language. For example, a trial lawyer in closing argument might characterize the testimony of the opposing party’s expert witness, who is a professor at a prestigious university, as that of an “academic,” because the word “academic,” for many people, strongly suggests the image of an abstract thinker who may be overly theoretical or idealistic, rather than someone who is grounded, realistic, or pragmatic. The “academic” described in this way may, of course, be a professor of something as down-to-earth as materials science or mechanical engineering.

Yet the labeling works. Referring to the expert in mechanical engineering as an academic subtly undermines her credibility. Similarly, the prosecutors in a criminal case will regularly refer to the defendant in ways that are meant to dehumanize him and strongly suggest that he is guilty of the offense with which he is charged. They may have begun that process at the beginning of the case by attributing aliases to him in the indictment, so that “John Smith” is not simply “John Smith,” but “John Smith, a/k/a John ‘The Enforcer’ Smith, a/k/a John ‘The Wizard of Odds’ Smith.” At trial, they will refer to him simply as “Smith” or “the Defendant.” On the other hand, defense counsel will invariably attempt to dignify the defendant by consistently referring to him as Mr. Smith. Finally, in the appeal of a civil rights case challenging prison conditions, the government invariably will attempt to discredit the plaintiff by beginning its statement of the case with a full recitation of the plaintiff’s criminal history, although the plaintiff’s past offenses have nothing to do with any of the issues presented in the case.

V. THE INSTINCT FOR A COHERENT STORY

Our immediate, intuitive responses are geared toward certainty, not ambiguity, and our unconscious mind not only answers questions quickly and easily, it does so in a way that seeks to create a coherent narrative. While our System 2, or reflective side, may override the quick System 1 response, System 2 is lazy—“thinking slow”
inescapably takes a lot of effort. Consequently, we are quick to come to conclusions and then motivated to hold onto such conclusions, even in the face of persuasive evidence to the contrary.

The unconscious mind’s instinct for fashioning a coherent story has many implications for lawyers. Anyone who has tried a case knows the necessity of presenting a coherent story. One cannot try a case—or argue an appeal—without having a coherent theory of the case. Preferably, the story should be one that explains all the inconvenient facts, while also being as simple and straightforward as possible. But Professor Kahneman points out that having a coherent story may be even more important than having a logical story.

Consider the following description of a woman that Professor Kahneman crafted for one of his experiments: “Linda is thirty-one years old, single, outspoken, and very bright. She majored in philosophy. As a student, she was deeply concerned with issues of discrimination and social justice, and also participated in anti-nuclear demonstrations.” Participants in the experiment, who were university undergraduates, were given a list of several possible occupations for Linda. Two of the choices were “Linda is a bank teller” and “Linda is a feminist bank teller.”

About 90% of the respondents chose “Linda is a feminist bank teller” over “Linda is a bank teller,” even though it is logically impossible that being a feminist bank teller is more probable than being a bank teller; all feminist bank tellers, by definition, must also be bank tellers. The researchers were surprised to find that their subjects did not appreciate that “feminist bank tellers” is a subset of “bank tellers,” and that a subset cannot be larger than the set itself. Consequently, the researchers gave the same questionnaire to doctoral students in the Stanford University Graduate School of Business, all of whom had studied probability, statistics, and decision theory. To the researchers’ surprise, 85% of those “sophisticated” graduate students also ranked “feminist bank teller” as more likely than “bank teller.” This example nicely

25. See infra Part IX.
26. For example, as Professor Kahneman notes, most investors are reluctant to liquidate investments long after it has become obvious that they should do so. The same resistance to change manifests itself in many other areas of life. “The sunk-cost fallacy keeps people for too long in poor jobs, unhappy marriages, and unpromising research projects.” KAHNEMAN, supra note 3, at 346.
27. Id. at 156–65.
28. Id. at 156.
29. Id. at 158.
30. Id.
demonstrates the way in which System 1 substitutes plausibility for probability.

VI. The Powerful Effect of Stereotypes

The “Linda Experiment” also illustrates the powerful effect of “representativeness,” or, more colloquially, of stereotypes. Clearly, the respondents did not believe that the description of Linda squared with the idea that she was a bank teller. But if she were a bank teller, it seemed plausible that she would be a feminist bank teller. That assumption produced a more coherent story, even though it was illogical to conclude that it was more likely that Linda would be a feminist bank teller than just a bank teller. While it is marginally possible that all bank tellers with Linda’s background would be feminists, it is still impossible that there should be more feminist bank tellers than bank tellers. And to say that there is even an equal likelihood of being a bank teller and being a feminist bank teller for persons with Linda’s background also denies the possibility of change; it assumes that no one who exhibited Linda’s commitments and interests as a college student possibly could have changed her views in the intervening decade. But these logical considerations were overridden in this study by the System 1 desire for a coherent story. The elephant was in control.

While we are generally aware of stereotyping, we may not appreciate how difficult it is for people to overcome their prejudgments and prejudices. If a client fits a stereotype, and the stereotype is unfavorable in the context of a particular case, the client’s lawyer will have hard work ahead of him. Suppose, for example, that there is a dispute about the authorship of a novel. Your client claims to be the author. As you know, she has an elegant English prose style and the novel at issue strongly resembles her prior work, both as to style and theme. But your client is foreign-born and speaks with a strong Polish accent. The jury will be asked to believe that she is the author of a novel with fluent English prose, even though they will find her extremely difficult to understand when she testifies at trial. It is not a coherent story that someone who writes so beautifully in English would be so difficult to understand when speaking the same language on the witness stand. Her lawyer should meet this issue head-on with expert testimony, not only as to the congruence of the present work with her past work, but also as to the differences between oral and written communication and the abilities of other foreign-born authors to write

31. Id. at 164–65.
32. Id. at 7.
in impeccable English, despite speaking in a heavily accented manner.33

Similarly, if your client dresses or speaks in a certain way, it is likely that the jury will view him or her in a particular light that may be difficult to overcome. Clothing, of course, is easier to change than certain other attributes, such as the ways in which people speak. New York accents still may be viewed stereotypically in parts of Alabama, just as Southern accents may be viewed stereotypically in New York. That is one of the comic themes developed in movies like My Cousin Vinny.34

Stereotypes can be ambiguous. For example, one need not have spent much time watching jury selection in criminal cases in the Circuit Court of Cook County, Illinois, to understand that being a police officer in Chicago will be viewed in different ways, often on stereotypical grounds, by different portions of a jury pool. Some members of the venire may signal their belief that police officers are categorically trustworthy and invariably tell the truth. For those potential jurors, the testimony of any police officer would carry a heavy presumption of

33. For example, Joseph Conrad was one of the greatest English novelists and a recognized master of English prose style. But Conrad, who was born of Polish parents in present-day Ukraine, learned to read and write English before learning to speak it, and he always spoke the language in a heavily accented way. See FREDERICK R. KARL, JOSEPH CONRAD: THE THREE LIVES 16–17, 182 (1979).


Vinny speaks with a thick New York accent and dresses for court in an outfit that includes a black leather jacket, black sweater, and gold chains. By contrast, the trial judge and the prosecutor are stereotypical southern gentlemen. As Vincent Canby noted, the movie turns on “a succession of epic misunderstandings and . . . talking at cross-purposes.” Id. The cross-cultural quality of the trial manifests itself in many scenes. For example, when Vinny begins to frame a question by asking “Is it possible that the two yutes,” the trial judge cannot imagine what Vinny is talking about. The following colloquy ensues:

The trial judge: “Ah, the two what? Uh . . . uh, what was that word?”
Gambini: “Uh . . . what word?”
The trial judge: “Two what?”
Gambini: “What?”
The trial judge: “Uh . . . did you say ‘yutes?’”
Gambini: “Yeah, two yutes.”
The trial judge: “What is a yute?”
Gambini: “Oh, excuse me, your honor . . . TWO YOUTHS.”

Vinny wins the case, of course.
truthfulness. Other groups represented in the venire may signal their understanding that police officers fit an altogether different stereotype—that police officers will not hesitate to lie whenever lying is in their interest, or that of their colleagues, to do so. Others, of course, will hold the same stereotypical views, but will be more circumspect in expressing them. Prosecutors, defense lawyers, and judges will have to work harder to make the right call about whether these potential jurors should serve or be excused. Because many judges are former prosecutors who have worked closely with police officers, they may also have their own preconceptions about the credibility of the police officers who are called to testify in their courtrooms.

VII. THE IMPACT OF FIRST IMPRESSIONS

Closely related to stereotyping is the powerful effect of first impressions.35 This phenomenon has a strong evolutionary basis, since life or death has frequently depended, throughout human history, on one’s ability to quickly determine whether some new person or thing is benign or dangerous. Consider Professor Kahneman’s short descriptions of two people, Alan and Ben:36

Alan: intelligent; industrious; impulsive; critical; stubborn; envious.
Ben: envious; stubborn; critical; impulsive; industrious; intelligent.

How would you view these two individuals? Most people would immediately perceive Alan more favorably than Ben. The two lists of characteristics are identical, of course; the only difference is the order in which the characteristics are presented. As you quickly go through each of the lists of characteristics, however, your associative memory conjures images that will be difficult to change or reconsider. Someone who is initially viewed as intelligent and industrious evokes an immediately positive association, just as the person who is initially viewed as envious and stubborn will evoke an immediately negative response. Consequently, the “stubbornness of an intelligent person is seen as likely to be justified and may actually evoke respect, but intelligence in an envious and stubborn person makes him more dangerous.”37 The same can also be said with respect to industriousness.

What many people do as they consider the characteristics of Alan and

35. KAHNEMAN, supra note 3, at 82.
36. Id.
37. Id.
Ben is to jump to a conclusion, based on the order in which the characteristics are encountered or enumerated. On the one hand, with respect to Alan, whom we initially viewed as intelligent, jumping to a conclusion enables us to overlook or rationalize his stubbornness. On the other hand, with respect to Ben, whom we initially perceived as envious and stubborn, thereby forming an abiding negative impression, the normally praiseworthy quality of intelligence actually becomes a negative. Ben will not be admired for his intelligence because we will assume that it will be used to advance a bad purpose.

The order in which the characteristics are listed is therefore critical. The first one or two characteristics create the impression and form the context; the later attributes are add-ons. This phenomenon holds true, not just as we experience lists of characteristics, but also as we encounter people at trial or in everyday life. If we first encounter Alan in a situation in which his intelligence shines, we are likely to think of him in the future as a smart person. Likewise, if we first encounter Ben in a situation in which his tendency to envy is what initially impresses us, that is the main impression that we are likely to carry forward to our next encounter with him. In either case, when we experience other aspects of Ben’s or Alan’s personalities, we are likely to fit that new evidence into the narrative we have already created; we are not likely to rethink the narrative in any fundamental way.

The relevance of the first impression effect for trial lawyers is obvious, of course. The impression that a lawyer makes in her opening statement is likely to have a profound effect on the outcome of the case. If the lawyer seems ill-prepared, ill-informed, or lacking in seriousness, she may have lost an important opportunity to connect with the judge or the jury. Indeed, lawyers have been known to sabotage their cases as early as jury selection by seeming to be overbearing or unfair toward certain members of the venire whom they hope to excuse for cause. If a lawyer ultimately fails to make her case for excusing the juror, she will be faced with the prospect of trying her case to a jury that includes at least one juror who is resentful and does not like her. Moreover, even if she succeeds in establishing cause for excusing that particular venire person, she may still face undesirable consequences: other members of the venire who witnessed the unfair questioning, and were not excused, may be similarly ill-disposed toward the lawyer and her case.

Less obvious, perhaps, is the relevance of the first impression effect to the way in which a trial lawyer should structure his case at trial. If one thinks of a case as being analogous to a human person we meet for the first time, lawyers should be concerned with the impression that the case first makes on the trier of fact. When permitted to do so, seasoned
trial lawyers begin the process of educating the jury about their case during jury selection. They continue that process in opening statements and in the particular shape they give to the presentation of the evidence.

Because of the importance that trial lawyers rightly attribute to the manner in which the narrative unfolds, they will expend much time and effort strategizing the order in which particular witnesses should be called. But the order in which trial witnesses are actually called is often beyond the lawyer’s control. A trial lawyer may spend a great deal of time mapping out the way in which a case should ideally be presented, only to find that witnesses are not available at particular times and will have to be called out of order. The trial judge’s calendar also may dictate a change in plans. For example, the judge may have only a short period of time available before he has to take a break to deal with an emergency motion, and he may ask counsel whether there is a witness whose testimony could fit the brief time the judge has at his disposal. Alternatively, the trial may unfold in a way that makes it desirable to take a brief witness out of order so that the longer testimony of another witness will not be broken up at an inopportune time. While it might also make the most sense for a corporate CEO to testify before hearing from a particular expert witness, who will be called to testify about the wisdom or significance of a decision the CEO has made, that sequencing of the testimony may not be possible because of the witnesses’ respective windows of availability.

In some cases, the challenge of witness sequencing may be particularly acute. Suppose, for example, that a public official has authorized an investigation into the misconduct of two lower-ranking public employees. As a result of the investigation, the lower-ranking employees were disciplined and later brought a lawsuit challenging the legality of the procedures that the government followed. Assume further that the investigator not only is much more knowledgeable about the investigation than the supervisor who ordered the investigation, but more articulate, with a more pleasant personality, and less prone to nervousness. Ideally, a lawyer might put the supervisor on the stand briefly to set the stage and then have the investigator tell as much of the story as possible. But suppose that the investigator has been seriously sick, has not been deposed, and cannot be called as a witness at the present time. Faced with these facts, the trial lawyer will have no choice but to tell more of the relevant story through the supervisor, and she will have to work with the supervisor to make him seem to be less nervous and a more engaging witness. The trial lawyer will also have to determine whether there are other witnesses who can tell parts of the investigator’s story. If several witnesses will be necessary to tell the
whole story, the sequencing of the testimony will be important. To the extent it can be controlled, it must be. As usual, however, the lawyer must be prepared to adjust to the circumstances as they unfold.

In other cases, plaintiff’s counsel may choose to call some of the key defense witnesses as adverse witnesses in the plaintiff’s case-in-chief. In that event, the first impression that the jury will have with respect to those witnesses (and of the defendant with whom they are aligned) will be the impression they make as adverse witnesses. The strength of first impressions supplies another reason for careful witness preparation.

VIII. CONFIRMATORY BIAS

Closely related and equally important is the concept of confirmatory bias, which describes System 1’s associative power. According to the concept of confirmatory bias, the mind, as it unconsciously reacts to a word or situation—e.g., Alan is intelligent—brings forth positive images about Alan that encompass characteristics beyond those covered by the statement itself; these too, are difficult to overcome.38 One lesson for lawyers is obvious: the lawyer who first gets to frame a problem or situation has a strong advantage.39 This factor also explains why people generally have a favorable initial response to persons whom they find to be physically attractive or intelligent.

The tendency to extrapolate from one or more positive (or negative) characteristics, and to like (or dislike) everything about a person, has been described as the “halo effect.”40 Again, because of the System 1

38. Id. at 80–81, 324.

39. In a similar vein, David Brooks, a New York Times columnist and public intellectual, has written, “In middle age, it was as a novelist that Tolstoy achieved his most lasting influence. After all, description is prescription. If you can get people to see the world as you do, you have unwittingly framed every subsequent choice.” David Brooks, Description is Prescription, N.Y. TIMES, Nov. 25, 2010, at A37.

40. KAHNEMAN, supra note 3, at 82–85. According to the “halo effect” theory, one is inclined to attribute additional positive or negative characteristics to someone about whom one has formed an initially positive or negative opinion. For example, as Professor Kahneman notes, one might meet a person at a party and form a favorable impression of her. Later, when asked to recommend persons who might be willing to contribute to a charity, you might recommend your new acquaintance as a prospect, even though there was nothing in your contact with her on which to base any opinion concerning her views on philanthropy. Id. at 82–83.

Several studies have corroborated the halo effect’s influence on juries. See, e.g., Barrett J. Anderson, Note, Recognizing Character: A New Perspective on Character Evidence, 121 YALE L.J. 1912, 1935 (2012) (“[S]tudies have demonstrated that jury instructions do not provide a satisfactory remedy when improper character evidence is presented to the jury. That fact strongly suggests that the halo effect cannot be cured by informing people that they are likely to use character proof wrongly.” (citing, inter alia, Amos Tversky & Daniel Kahneman, Judgment Under Uncertainty, Heuristics and Biases, 185 SCIENCE 1124, 1124–25 (1974)); H. Michael Caldwell et al., The Art and Architecture of the Closing Argument, 76 TUL. L. REV. 961, 983–84
bias in favor of coherence, we have a tendency to attribute additional positive or negative characteristics to an individual or situation about which we have made an initial appraisal based on one or a few characteristics. This tendency leads us to view the individual or situation as uniformly positive or uniformly negative. For that reason, as Professor Kahneman suggested, if someone were to say that Hitler loved little children, that statement would have a jarring effect. It is difficult to believe anything good of Hitler, no matter what the truth may be. A coherent story is simple and consistent. Similarly, we tend to disregard information that is inconsistent with what we already believe. An earlier study tested the idea of a confirmatory bias by asking two groups, one pro-death penalty and the other anti-death penalty, to read a balanced article on the topic. The expectation was that the two groups would move closer together. In fact, the opposite occurred—each group focused on those arguments and data in the article that supported their original bias.

(2002) (advising lawyers to dress and groom professionally when giving closing arguments because doing so will cause “the jury to perceive the attorney as possessing other positive characteristics as well, such as honesty and competence”); Theodore Eisenberg & Valerie P. Hans, Taking a Stand on Taking the Stand: The Effect of a Prior Criminal Record on the Decision to Testify and on Trial Outcomes, 94 CORNELL L. REV. 1353, 1379–87 (2009) (finding evidence of a negative halo effect when jurors learned about the defendant’s past criminal record); Harold Sigall & Nancy Ostrove, Beautiful but Dangerous: Effects of Offender Attractiveness and Nature of the Crime on Juridic Judgment, 31 J. OF PERSONALITY & SOC. PSYCHOL. 410, 410–14 (1975) (investigating the interpersonal consequences of physical attractiveness and finding that subjects assigned more lenient sentences to attractive defendants than to unattractive defendants).

41. KAHNEMAN, supra note 3, at 200.

42. See id. at 216 (“Facts that challenge such basic assumptions—and thereby threaten people’s livelihood and self-esteem—are simply not absorbed. The mind does not digest them. This is particularly true of statistical studies of performance, which provide base-rate information that people generally ignore when it clashes with their personal impressions from experience.”).

43. See, e.g., PHILIP G. ZIMBARDO & MICHAEL R. LEIPPE, THE PSYCHOLOGY OF ATTITUDE CHANGE AND SOCIAL INFLUENCE 162–63 (1991) (“But despite all good intentions to ‘let the facts speak for themselves,’ biases based on our existing attitudes can sneak into our perception and interpretation of the ‘facts.’ What we notice in a message, how we interpret ambiguous message information, and which beliefs and knowledge are conjured from memory during the cognitive response process are all affected in subtle ways by one’s existing point of view.”). In a study in which subjects who disagreed about capital punishment were exposed to mixed evidence about its effectiveness, the subjects “became even further separated after reading the mixed evidence. . . . This peculiar effect appears to be the result of biased interpretation. The subjects tended to accept at face value the data that supported their position while actively counterarguing the nonsupportive findings.” Id. (citation omitted). See also ALBERT BANDURA, SOCIAL FOUNDATIONS OF THOUGHT AND ACTION 223 (1986) (“People generally overestimate the adequacy of their knowledge, especially in areas of limited familiarity. . . . They favor confirmatory evidence but disregard contradictory evidence.”).

44. ZIMBARDO & LEIPPE, supra note 43, at 162–63. See also KAHNEMAN, supra note 3, at 202 (“Asked to reconstruct their former beliefs, people retrieve their current ones instead—an instance of substitution—and many cannot believe that they ever felt differently.”).
Moreover, as Professor Kahneman also demonstrates, when people do change their minds, they tend to see their original opinions as having been closer to their new opinions than they actually were.\textsuperscript{45} In another study about the death penalty, where the participants did not have overly strong views at the outset, the researchers measured attitudes before and after the participants had read a particularly persuasive positive or negative message. Afterwards, when the researchers asked the participants to evaluate their former beliefs, the participants invariably described their original beliefs as having been much closer to their new beliefs than they actually were. This study illustrates the concept of hindsight bias, which holds that we tend to adjust our view of the past to accommodate the reality of the current situation.\textsuperscript{46}

Hindsight bias can have dangerous consequences for decision-making because it leads us to assess the quality of a decision not by whether the process was sound, but by whether the outcome was good or bad.\textsuperscript{47} To illustrate the point, Professor Kahneman uses the example of a low-risk elective surgical intervention in which an unpredictable event caused a patient’s death.\textsuperscript{48} He suggests that the jury in a subsequent malpractice action will be inclined to believe, after the fact, that the operation was risky, and that the doctor should not have ordered it.\textsuperscript{49} Thus, the “post hoc” bad outcome dominates the evaluation of the “ex ante” decision to operate.

Hindsight bias is obviously an important consideration in trying cases, as Professor Kahneman’s example of the low-risk surgical procedure suggests. As a result of hindsight bias, jurors are more likely to attribute a bad outcome to medical negligence than an objective and realistic appraisal of the facts and circumstances would otherwise justify. But the challenge for trial lawyers extends far beyond medical malpractice cases. Whenever a jury is asked to conduct a post-hoc evaluation of risks, the jury will have great difficulty in disregarding, or even putting into perspective, the actual outcome. Since much litigation

\textsuperscript{45} KAHNEMAN, supra note 3, at 202.
\textsuperscript{46} Id. at 201–04.
\textsuperscript{47} Id. at 218 (“The idea that the future is unpredictable is undermined every day by the ease with which the past is explained. As Nassim Taleb pointed out in The Black Swan, our tendency to construct and believe coherent narratives of the past makes it difficult for us to accept the limits of our forecasting ability. Everything makes sense in hindsight, a fact that financial pundits exploit every evening as they offer convincing accounts of the day’s events. And we cannot suppress the powerful intuition that what makes sense in hindsight today was predictable yesterday. The illusion that we understand the past fosters overconfidence in our ability to predict the future.”).
\textsuperscript{48} Id. at 203.
\textsuperscript{49} Id.
involves circumstances in which something went wrong, that bias will be an important factor. To prevent an outcome from being determined by hindsight bias, the defendant should marshal as much compelling evidence as possible to show that the decision was proper in the circumstances, as they were known at the time.

IX. THE LAZINESS OF SYSTEM 2

A central feature of Professor Kahneman’s *Thinking, Fast and Slow* is the proposition that System 2 is “lazy.” Indeed, as Professor Kahneman shows, conscious thinking is a lot of work. When we expend mental effort, our pupils dilate, indicating the stress of concentration.50 While we can solve problems easily while strolling through a rose garden, it is much more difficult to analyze a problem while hiking up a steep hill. Hiking and thinking both consume energy; when we expend mental energy, our blood glucose levels drop. Professor Kahneman describes this phenomenon as “ego depletion.”51 When ego depletion is coupled with risk or loss aversion, which is the tendency of individuals to favor the status quo because they overestimate the possibility that an action will have negative consequences,52 highly undesirable consequences may result. As Professor Kahneman shows, there is an instinct to do nothing—to accept the default option—because affirmative action requires more effortful deliberation, makes us feel a greater sense of responsibility for consequences, and may produce more regret with respect to negative consequences.53

System 1 operates on the basis of limited evidence and limited effort—what Professor Kahneman describes as WYSIATI, or “what you see is all there is.”54 On the other hand, System 2 is capable of digging deeper and bringing more information to consciousness. System 2 thinking results in better decisions but also takes more effort; it is much easier to jump to a conclusion.

A study of eight parole judges in Israel demonstrates the unfortunate consequences that may result from combining ego depletion with the instinct toward the default option, which, here, was denial of parole.55

50. *Id.* at 31–34. *See also id.* at 39–49 (discussing the physiological and psychological effects of expending mental energy).
51. *Id.* at 41–43.
52. *See infra* notes 57–60 and accompanying text.
53. *See* KAHNEMAN, supra note 3, at 287–88, 346–49. Some persons, of course, are overconfident optimists. *Id.* at 340.
54. *Id.* at 85–87.
55. *Id.* at 43–44.
Due to their presumably heavy workloads, the judges spent only about six minutes on each case. The decisions were categorized by their relationship to one of the three food breaks that the judges took during the course of their workday: a morning break, a lunch break, and an afternoon break. The breaks permitted the workday to be divided, for analytical purposes, into four parts. The study showed that the judges granted about 65% of parole requests immediately after each food break. As each session continued, however, the proportion of paroles granted steadily dropped, declining almost to zero just before the time for the next food break. The researchers concluded that, as the judges became tired and hungry (ego depletion), they chose the easiest decision: the default option to deny parole.

Like the other points discussed in this Essay, the notions of ego depletion and the power of the default option hold important lessons for lawyers; but these notions and lessons also should engage the attention of those responsible for the justice system itself. If the case of the Israeli immigration judges accurately reflects the reality of decision-making, much care needs to be taken with respect to the scheduling and treatment of decision-makers. It is simply not acceptable that substantive results in important disputes should be allowed to depend on the glucose levels of decision-makers, if that is at all avoidable. The most fundamental aspect of the rule of law is that cases should be properly sorted according to meaningful similarities and differences, and that like cases should be treated alike.56 If similar cases are not being treated similarly because of ego depletion and the gravitational force of the default option, that fact presents a serious challenge to the integrity of the decision-making apparatus and to the very notion of a government of law.

X. RELEVANCE FOR TRANSACTIONAL LAWYERS

While much of the foregoing discussion has focused on the relevance of Professor Kahneman’s work for the practice of litigation, it is no less significant or meaningful for transactional lawyers. Just as it is important for a trial lawyer to ensure that her witness answers the correct question, it is critical for the transactional lawyer to elicit accurate and relevant information from her client. In this respect, it is significant, as Professor Kahneman also points out, that the probability of a rare event is likely to be overestimated when the alternative is not

fully specified.57

One example Professor Kahneman uses is that of projecting the likelihood that any one of eight professional basketball teams will win the NBA conference title.58 Our associative memory brings up positive images of each particular team when we consider them individually. When the first team is mentioned, we think of some outstanding feats that that team has accomplished, and we continue to do the same thing with respect to each of the remaining teams. In the end, we have created an extremely (and artificially) positive image of each team, causing us to overestimate by many orders of magnitude the real chance of each team to win the championship. In an experiment in which each team was considered in this way, the total probabilities assigned to the eight teams added up to 240%; that result is obviously impossible because the likelihood of these eight different events (the likelihood of each team winning) cannot add up to more than 100%. If you focus on one team at a time, its strengths will be well-defined, but the alternative—namely, the strengths of each of the other seven teams, and the fact that only one of them can actually win—will be more diffused and less evocative.

Transactional and litigation clients are both inclined to overestimate the likelihood of positive outcomes when they contemplate a particular course of action without subjecting possible alternative outcomes to an equally (or more) rigorous analysis. Many lawyers, both transactional lawyers and those on the litigation side, suffer from the same lack of realism about the relative strengths of their respective clients’ positions. This is another example of WYSIATI: “what you see is all there is.” When consulting with the client on a particular course of action, it is desirable to evaluate alternatives and examine the likelihood of both positive and negative outcomes and the impact that each would have. On a personal note, when we are asked to serve as an expert witness, we always want to consider very carefully the position of the other side, giving close attention to the testimony and documentation supporting the other side’s position, since counsel will frequently take a myopic view of the case, thereby exposing the expert to unexpected cross-examination, as well as lessening the possibilities for settlement.

Loss aversion is another relevant concept for transactional lawyers. We experience less pleasure from a gain than we do pain from a loss.59

57. KAHNEMAN, supra note 3, at 325.
58. Id. at 325–26.
59. Id. at 291–92, 300–09. Professional golfers apparently focus harder on avoiding a bogey than on making a birdie. Id. at 303–04.
As Professor Kahneman notes,

[W]e refuse to cut losses when doing so would admit failure, we are biased against actions that could lead to regret, and we draw an illusory but sharp distinction between omission and commission, not doing and doing, because the sense of responsibility is greater for one than for the other.”60

The concept of loss aversion, and the tendency not to engage in affirmative action, plays out in the familiar situation of the bank officer who continues to extend credit rather than writing off a loss.61 This phenomenon is known as the “sunk-cost fallacy,” or, in more colloquial terms, the fallacy of throwing good money after bad.62 It also comes into play when a company has sunk substantial sums into a particular project, the success of which has become questionable. The question is whether the bank should continue to fund the current project until completion or, alternatively, abandon the project and invest the additional funds in another endeavor. At this particular point in time, each alternative should be independently evaluated. The power of the default option, however, favors staying with the existing project, rather than abandoning it, conceding its failure, and starting anew. Similarly, in an investment context, an investor may be more likely to choose to sell a winning investment than a losing investment, since the latter also requires an admission of failure.63

Awareness of the default option can also be helpful in assisting a client to implement a proposed course of action. Recognizing that decision-making requires effort—which may inhibit people from making decisions that could be in their best interest—might cause a company to modify its retirement plan. Assume that the plan enabled participants to specify how much they would contribute in dollars each pay period, and also gave them the option to increase that dollar amount. Thus, if the employee were to receive an increase in pay, she could increase the retirement contribution that would be deducted from

60. Id. at 342.
61. Anyone who has served on the management or finance committees of a law firm knows that many lawyers are subject to the same weakness. They will continue to work on a matter, rather than withdraw from the representation, long after it will have become clear to any impartial observer that payment is exceedingly unlikely, and probably an impossibility. They do so to avoid having a substantial write-off in their column, but also because they hope (or imagine) that a bad situation can be turned around, when they (and their partners) would be far better off if the firm’s resources were devoted elsewhere.
62. See KAHNEMAN, supra note 3, at 343–46.
63. Id. at 342–52. As Professor Kahneman points out, current federal tax laws encourage rationality in this regard by providing a tax incentive for liquidating losing investments. Id. at 345.
her paycheck. But doing so would require affirmative action on the part of the employee, and the employee would likely do nothing.

However, if the plan provided that a designated percentage of the employee’s compensation would always be contributed to the plan, an increase in compensation would automatically result in an increase in the level of the employee’s retirement contribution. Thus, rather than requiring the employee to take affirmative action to increase her retirement contribution, the increased contribution would now constitute the default. Of course, the employee would still have the option to take cash currently, but that would require an affirmative action. Either way, the employee would have a choice. The default option, however, would be focused on what appears to be the better choice—increased savings—while still leaving the employee free to choose the cash option. The client may not have appreciated the significance of the default option, and the attorney can thus make a valuable contribution by suggesting to the client that the mechanics of the plan could make increasing an employee’s contribution the default option, while still giving the employee an active choice of taking cash instead.

CONCLUSION

More than 2300 years ago, Aristotle recognized that persuasion is hard work, requiring much more than merely the ability to craft logical arguments.64 Logos, or the substance of the argument, is an important part of persuasion, but, as Aristotle recognized, it is not the only part; pathos, or securing the proper disposition of the audience, and ethos, conveying a sense of the admirable character of the speaker, are also necessary.65 As Aristotle understood, an advocate must have a sense of his audience and of how that particular audience can be moved.66 An advocate must be able to present himself in a way that establishes rapport with those who will decide the matter in dispute.67 The advocate must also choose the proper time to make the argument.68 As Aristotle recognized, some arguments will not be well-received at certain times, and it is best not to make those arguments then.

The ability to advocate and persuade is an essential skill for the trial

---

64. ARISTOTLE, THE ART OF RHETORIC, supra note 2, at 74.
65. Id.
66. Id. at 140–41, 172–79.
67. Id. at 140–41. See also Maureen Dowd, Bottoms Up, Lame Duck, N.Y. TIMES, May 1, 2013, at A23 (characterizing President Obama’s view of persuasion as being simply to point out what the right solutions are, with the expectation that Congress will then do the right thing, without having to be cajoled into doing so).
68. ARISTOTLE, THE ART OF RHETORIC, supra note 2, at 229.
lawyer, but it is no less important for the transactional lawyer—even if
the transactional lawyer may not be accustomed to think of what he or
she does in terms of advocacy. In either case, knowing how people
think, and how they can be persuaded to do one thing or another, is
critical to every lawyer’s professional work. In large part, Aristotle’s
*Rhetoric* is not simply a text in rhetoric or philosophy, but a seminal
work in the field of psychology. Many lawyers keep the *Rhetoric*
close at hand as they contemplate the ways in which their clients’
positions can be put most effectively. They now have Professor
Kahneman’s *Thinking, Fast and Slow* as well. It should be no less
indispensable to those who wish to increase their understanding of how
best to reach those they wish to persuade.

---

69. Psychology plays an important role in Aristotle’s theory of argument, and his insights are
compelling, even today. See id. at 17, 21–31.