

## Journal of Law and Policy

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Volume 22

Issue 1

SYMPOSIUM:

The Impact of Cognitive Bias on Persuasion and  
Writing Strategies

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Article 6

2014

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### Recommended Citation

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Available at: <https://brooklynworks.brooklaw.edu/jlp/vol22/iss1/6>

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# METAPHOR AND ANALOGY: THE SUN AND MOON OF LEGAL PERSUASION

Linda L. Berger\*

*If we insist upon confining ourselves to scrupulously rational modes of thought and discussion, . . . this may well have the effect of granting inappropriate influence to pre-existing biases . . . . Against this, harnessing the power of imagination to reconfigure our thoughts by more intuitive means may enable us to counteract these biases in a more thoroughgoing way.<sup>1</sup>*

## INTRODUCTION

Metaphor and analogy are the sun and moon of legal persuasion. But which is the sun and which is the moon? *Metaphor is the sun*, according to linguist George Lakoff and philosopher Mark Johnson, because all human thought and expression revolve around it.<sup>2</sup> Analogy researcher Doug Hofstadter would counter that

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<sup>1</sup> Elisabeth Camp, *Two Varieties of Literary Imagination: Metaphor, Fiction, and Thought Experiments*, in 33 MIDWEST STUDIES IN PHILOSOPHY 107, 128 (Peter A. French ed., 2009) [hereinafter Camp, *Two Varieties of Literary Imagination*].

<sup>2</sup> See, e.g., MARK JOHNSON, *THE BODY IN THE MIND: THE BODILY BASIS OF MEANING, IMAGINATION, AND REASON* (1987); GEORGE LAKOFF, *The Contemporary Theory of Metaphor*, in METAPHOR AND THOUGHT 202 (Andrew Ortony ed., 2d ed. 1993); GEORGE LAKOFF, *WOMEN, FIRE, AND DANGEROUS THINGS: WHAT CATEGORIES REVEAL ABOUT THE MIND* (1987); GEORGE LAKOFF & MARK JOHNSON, *METAPHORS WE LIVE BY* (1980) [hereinafter LAKOFF & JOHNSON, *METAPHORS*]; GEORGE LAKOFF & MARK JOHNSON,

*analogy is like the sun* because analogy fills the sky of human cognition.<sup>3</sup> And when Romeo proclaims that *Juliet is the sun*, Romeo is asking us to view Juliet through a perspective that reflects light on certain of her features and not others: “her beauty, her uniqueness, and the warmth with which she fills his heart.”<sup>4</sup>

For those interested in legal persuasion, metaphor and analogy constitute both sun and moon. Providing comparison, categorization, and perspective, they are our primary sources of generated and reflected light. Put another way, because metaphor and analogy are the primary ways in which we are able to see one thing “as” another, they are the primary ways in which we understand new information (*here’s a comparable example*); determine where something new likely fits (*that looks like the right slot*); or suggest a different point of view (*now I see what you mean*).

According to recent cognitive research into the processing of analogy and metaphor, the important distinction is not between metaphor and analogy but rather between novel and conventional metaphors.<sup>5</sup> This research suggests that novel characterizations and

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PHILOSOPHY IN THE FLESH: THE EMBODIED MIND AND ITS CHALLENGE TO WESTERN THOUGHT (1999) [hereinafter LAKOFF & JOHNSON, PHILOSOPHY IN THE FLESH]; STEVEN L. WINTER, A CLEARING IN THE FOREST: LAW, LIFE, AND MIND (2001).

<sup>3</sup> Although he does not actually claim that analogy is like the sun, Hofstadter uses a related metaphor: “[A]nalogy is anything but a bitty blip [in the broad blue sky of cognition]—rather, it’s the very blue that fills the whole sky of cognition—analogy is *everything*, or very nearly so, in my view.” Douglas R. Hofstadter, *Epilogue: Analogy as the Core of Cognition*, in THE ANALOGICAL MIND: PERSPECTIVES FROM COGNITIVE SCIENCE 499, 499 (Dedre Gentner et al. eds., 2001).

<sup>4</sup> Elisabeth Camp, *Showing, Telling and Seeing: Metaphor and “Poetic” Language*, 3 BALTIC INT’L Y.B. COGNITION, LOGIC & COMM., Aug. 2008, at 1, 2 [hereinafter Camp, *Showing, Telling, and Seeing*]. The metaphor from WILLIAM SHAKESPEARE, ROMEO AND JULIET act 2, sc. 2, has been explained in different ways. See Dan Hunter, *Teaching and Using Analogy in Law*, 2 J. ALWD 151, 155 (2004) (describing it as an explicit similarity likening Juliet to the “light of his world”); Dedre Gentner, *Structure-Mapping: A Theoretical Framework for Analogy*, 7 COGNITIVE SCI. 155, 162 (1983) [hereinafter Gentner, *Structure-Mapping*] (describing it as chiefly conveying spatial and emotional relationships rather than similar features: Juliet appears above him and brings him hope).

<sup>5</sup> Although there are obvious connections, the analogy research described

metaphors spark an analogy-like comparison and the resulting process of comparison may in turn generate new understanding.<sup>6</sup> This new understanding emerges not because new information has been provided to the reader, but instead because the reader is able to perceive and interpret the available information in a new way. The shift is not in *what we see* (content) but in *how we see* (perspective).<sup>7</sup>

The analysis and suggestions that follow rely on two key findings from cognitive researchers: (1) metaphors follow a career path as they evolve from being new to becoming conventional, and (2) novel metaphors tend to be more capable of generating knowledge while conventional metaphors tend to provide categories into which new information is unthinkingly slotted.<sup>8</sup> Novel metaphors and characterizations<sup>9</sup> are not necessarily “novel” in the sense of being unique or unusual.<sup>10</sup> Instead, they are novel because they have not previously been used within a specific context or as a basis for comparison to a particular target. For example, although property rights are often described as a bundle of sticks, it might be considered novel to describe privacy rights in that way.<sup>11</sup> But if this novel metaphor were advanced, and if the

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here is based on the broader category of analogy rather than the familiar legal arguments based on analogizing to or distinguishing from a precedential case.

<sup>6</sup> Dedre Gentner et al., *Metaphor is Like Analogy*, in *THE ANALOGICAL MIND: PERSPECTIVES FROM COGNITIVE SCIENCE* 199, 227–36 (Dedre Gentner et al. eds., 2001) [hereinafter Gentner et al., *Metaphor is Like Analogy*] (discussing results indicating that processing varies as a metaphor moves along a continuum from novel to conventional).

<sup>7</sup> Camp, *Two Varieties of Literary Imagination*, *supra* note 1, at 111.

<sup>8</sup> Gentner et al., *Metaphor is Like Analogy*, *supra* note 6, at 227–32.

<sup>9</sup> For the purposes of the analogy research, characterizations are a subset of metaphor.

<sup>10</sup> For example, one of the novel metaphors used by Dedre Gentner et al. was “A Mind is a Kitchen.” Gentner et al., *Metaphor is Like Analogy*, *supra* note 6, at 231. In a study of the neurological responses to novel metaphors, the examples of novel metaphors were more unusual: *His handshake was a mumble; the insults hopped on her tongue*. Eileen R. Cardillo et al., *From Novel to Familiar: Tuning the Brain for Metaphors*, 59 *NEUROIMAGE* 3212, 3214, 3219–20 (2012) (reporting results from study of the neural career of metaphors).

<sup>11</sup> See, e.g., Michael J. Minerva Jr., *Grandparent Visitation: The Parental Privacy Right to Raise Their Bundle of Joy*, 18 *FLA. ST. U. L. REV.* 533 (1991).

reader had a stake in what was being argued, the reader would try to align surface features and underlying relationships found in the source (a bundle of sticks) with those found in the target (privacy rights). If the matching of surface features and underlying relationships seemed to be working (how might privacy rights be seen as divided over time and among interests and parties?), the reader would go on to transfer information by inference from the concept of a bundle of sticks to the concept of privacy rights, thus generating a new perspective on privacy rights.<sup>12</sup>

Transferred to legal persuasion, these findings support a persuasive method intuitively recognized by lawyers: by shifting the way decision makers perceive and interpret situations involving people and events, novel characterizations and metaphors are sometimes able to compete with entrenched stereotypes and conventional categories. Moreover, the same research may provide guidance for lawyers working to craft the right kinds of characterizations and metaphors to meet specific goals.

Drawing on research into social cognition, decision making, and analogy, this Article will recommend that lawyers turn to novel characterizations and metaphors to solve one of the difficult persuasion problems created by the way judges and juries think and decide. According to social cognition researchers, we perceive and interpret new information by following a process of schematic cognition, analogizing the new data we encounter to the schemas and knowledge structures embedded in our memories. Decision-making researchers differentiate between intuitive and reflective thinking (System 1 and System 2), and they agree that in System 1 decision making, only the most accessible schemas and knowledge structures are active and available for filtering and framing what we see. So when we are engaged in System 1 decision making, the answer to how to think about new information arrives automatically and intuitively, without deliberation or reflection. Should the answer be an unhelpful one, recent analogy research suggests that novel metaphors and characterizations may be used to prompt alternative schemas or knowledge structures beyond those that are immediately accessible. If initial matches can be made between the novel metaphor or characterization and the new

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<sup>12</sup> See Gentner et al., *Metaphor is Like Analogy*, *supra* note 6, at 243.

information being perceived, the resulting online processing of further similarities resembles the more reflective decision making of System 2, a desirable persuasive result when the immediately accessible schemas yield an unfavorable answer.

To provide necessary background information before introducing the more recent findings of analogy researchers, Part I of this Article will describe the connections between several strands of cognitive and decision-making research. The research on schematic cognition<sup>13</sup> informs us of the role of embedded knowledge structures in our unconscious thinking, while research on intuitive and reflective thinking (System 1 and System 2) shows us how schematic cognition affects decision making.<sup>14</sup> Part II explores the recent research into the processing of analogy and metaphor.<sup>15</sup> Part III will bring together the findings of all three bodies of cognitive research to suggest and explore possible applications to legal persuasion.<sup>16</sup>

#### I. OUR ABILITY AND PROPENSITY TO RECOGNIZE PATTERNS LINK OUR THINKING AND DECISION-MAKING PROCESSES

The same cognitive process that leads to stereotypical thinking is in play when we identify imaginative solutions to problems. What we call cognitive bias is the result of our automatic and intuitive recognition of a familiar pattern.<sup>17</sup> Because we are

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<sup>13</sup> See *infra* Part I.A. The terms used and concepts summarized in Part I.A derive primarily from Hofstadter, *supra* note 3; Anders Kaye, *Schematic Psychology and Criminal Responsibility*, 83 ST. JOHN'S L. REV. 565 (2009); Ronald Chen & Jon Hanson, *Categorically Biased: The Influence of Knowledge Structures on Law and Legal Theory*, 77 S. CAL. L. REV. 1103 (2004).

<sup>14</sup> See *infra* Part I.B, which relies on Linda L. Berger, *A Revised View of the Judicial Hunch*, 10 LEG. COMM. & RHETORIC: J. ALWD 1 (2013).

<sup>15</sup> See *infra* Part II, which relies on Gentner et al., *Metaphor is Like Analogy*, *supra* note 6.

<sup>16</sup> See *infra* Part III.

<sup>17</sup> Implicit or cognitive bias has been the subject of much research and legal scholarship. See generally B. Keith Payne & Bertram Gawronski, *A History of Implicit Social Cognition: Where Is It Coming From? Where Is It Now? Where Is It Going?*, in HANDBOOK OF IMPLICIT SOCIAL COGNITION: MEASUREMENT, THEORY, AND APPLICATIONS 1 (Bertram Gawronski & B. Keith Payne eds., 2010); Christine Jolls & Cass R. Sunstein, *The Law of Implicit Bias*, 94 CALIF.

deluged with so much data and information, our brain uses a triage-like approach<sup>18</sup> to sort through perceptions and impressions. We settle on what we recognize as the most relevant features that fit into the most immediately accessible schema, filtering out other potentially relevant information. Triage is efficient, but it means that we “miss” things, and that in some sense, our “intuition” has closed our minds. When we use this recognition to make a snap judgment about people, places, things, and the future, the intuition that guides us may be detrimental to our better judgment. Moreover, simply providing more information seldom is sufficient to overcome the cognitive filters that fall into place once we intuitively recognize a familiar pattern or path.<sup>19</sup>

What the critics of intuition sometimes miss<sup>20</sup> is that intuition also opens our minds. When there is a question about how to resolve a difficult problem or achieve a complex goal, our intuitive

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L. REV. 969, 972 (2006); Jerry Kang, *Trojan Horses of Race*, 118 HARV. L. REV. 1489 (2005); Linda Hamilton Krieger, *The Content of Our Categories: A Cognitive Bias Approach to Discrimination and Equal Employment Opportunity*, 47 STAN. L. REV. 1161, 1186–1217 (1995); Justin D. Levinson, *Forgotten Racial Equality: Implicit Bias, Decisionmaking, and Misremembering*, 57 DUKE L. J. 345, 347 (2007); Ann C. McGinley, *!Viva la Evolución!: Recognizing Unconscious Motive in Title VII*, 9 CORNELL J.L. & PUB. POL’Y 415, 417–18 (2000). Recent articles have addressed the extent to which bias affects judicial decisionmaking. *See, e.g.*, Fatma E. Marouf, *Implicit Bias and Immigration Courts*, 45 NEW ENG. L. REV. 417 (2011) (recommending reforms to help reduce the potential for implicit bias to affect decisionmaking by immigration judges); Jeffrey J. Rachlinski et al., *Does Unconscious Racial Bias Affect Trial Judges*, 84 NOTRE DAME L. REV. 1195 (2009).

<sup>18</sup> Kaye, *supra* note 13, at 600.

<sup>19</sup> *See* Chen & Hanson, *supra* note 13, at 1228 (concluding that “attempts to debias our schema-based thinking will be less successful than we would hope and might expect”).

<sup>20</sup> *See, e.g.*, Chris Guthrie et al., *Blinking on the Bench: How Judges Decide Cases*, 93 CORNELL L. REV. 1, 29–43 (2007) (suggesting an “intuition-override” model of judging in which judges usually make intuitive decisions that only sometimes are overridden by deliberation). *But see* Daniel Kahneman & Gary Klein, *Conditions for Intuitive Expertise: A Failure to Disagree*, 64 AM. PSYCHOL. 515, 525 (2009) (“[A] psychology of judgment and decisionmaking that ignores intuitive skill is seriously blinkered.”). Balancing this statement, the authors also conclude that “a psychology of professional judgment that neglects predictable errors [of intuition] cannot be adequate.” *Id.*

recognition of potentially helpful patterns and paths can bring to mind a range of alternatives. If novel characterizations and metaphors are used to prompt intuitive recognition of such alternatives, they may be able to counter entrenched stereotypes and conventional categories. Rather than changing *what* the audience sees by adding information, these novel characterizations and metaphors work by affecting *how* the audience perceives and interprets the existing situation.

To be able to make conscious and deliberate choices about persuasion, lawyers need to know something about thinking and decision making.<sup>21</sup> This part briefly summarizes the current conventional wisdom about *cognition* (how we perceive, interpret, and organize information) and quickly explores two important schools of thought about *decision making*, a process obviously influenced by the strengths and weaknesses of our thinking process.

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<sup>21</sup> “Intuitive problem solving” is the term I will use for what the researchers refer to as the naturalistic decisionmaking approach or the recognition-primed decision model. See GARY KLEIN, *SOURCES OF POWER: HOW PEOPLE MAKE DECISIONS* 4–6, 15–30 (1998).



A. *Perception and Interpretation Rely on “Chunking” Data into Schemas and Other Embedded Knowledge Structures*<sup>22</sup>

Research into the cognitive process indicates that we prefer coherent and plausible accounts of things and that in order to get them, we will erase inconsistencies as well as fill in the blanks.<sup>23</sup>

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<sup>22</sup> The term “schematic cognition” is adopted from Kaye, *supra* note 13, at 570. Kaye describes schematic cognition as the process that “reduces the unruly, constant flood of information available to our senses to schemas and other related knowledge structures—structured networks of abstract concepts, which can be stored in long-term memory and referenced to identify and understand the stimuli in our environment.” *Id.* For his description of the research relating to the role of knowledge structures in cognition, Kaye relies on SUSAN T. FISKE & SHELLEY E. TAYLOR, *SOCIAL COGNITION* (2d ed. 1991); ZIVA KUNDA, *SOCIAL COGNITION: MAKING SENSE OF PEOPLE* (1999); DOUGLAS L. MEDIN ET AL., *COGNITIVE PSYCHOLOGY* (4th ed. 2005); and GORDON B. MOSKOWITZ, *SOCIAL COGNITION: UNDERSTANDING SELF AND OTHERS* (2005). Kaye, *supra* note 13, at 568 n.2.

In this article, I use the phrase “embedded knowledge structures” to refer to the whole range of structures that are used for perception and interpretation. Chen and Hanson differentiate the process of categorization—the classification of elements, experiences, instances, or arguments into groups—from the application of schema to the categorized items to draw inferences and make predictions. Chen & Hanson, *supra* note 13, at 1132–33. They use the term “knowledge structures” interchangeably with “schema,” and they categorize schemas as including self schemas, person schemas, role schemas, event schemas or scripts. *Id.* Kaye uses the term knowledge structures to include categories and frameworks for objects, groups of people, roles or characters, events, and relationships. Kaye, *supra* note 13, at 570.

In previous articles, I have used the term “embedded knowledge structures” to refer broadly to the cognitive frameworks constructed by our experiences in particular contexts. See Linda L. Berger, *How Embedded Knowledge Structures Affect Judicial Decision Making: A Rhetorical Analysis of Metaphor, Narrative and Imagination in Child Custody Disputes*, 18 S. CAL. INTERDISC. L.J. 259 (2009).

<sup>23</sup> The impact that schematic cognition can have on juror decision making is explored in Sara Gordon, *Through the Eyes of Jurors: The Use of Schemas in the Application of “Plain Language” Jury Instructions*, 64 HASTINGS L.J. 643 (2013) (assessing the influence of schemas on jury decision making and recommending alternatives to mitigate the negative effects).

Other authors have noted that Karl Llewellyn reached similar conclusions before cognitive science and social psychology provided research results to support them. Llewellyn wrote:

Starting very early in our lives, we encounter seemingly infinite amounts and kinds of sensory information. There is so much information, and it is so various, that we cannot discretely perceive, interpret, organize, and understand every single item as a single item. In order to efficiently filter and sort, our brains develop a series of scans and frames.<sup>24</sup>

This approach allows us to “get a handle on” the information we perceive, first by creating frameworks and second by channeling new information into them.<sup>25</sup> We create abstract structures or frameworks for seemingly related items, and by analogy, we try to fit new information into the discrete and

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Like rules, concepts are not to be eliminated . . . . The sense impressions which make up what we call observation are useless unless gathered into some arrangement. Nor can thought go on without categories.

Moreover, Llewellyn noted that the “realistic approach rests on the observation that categories and concepts, once formulated and once they have entered into thought processes, tend to take on an appearance of solidity, reality and inherent value which has no foundation in experience.” Once such categories and concepts have entered into our thinking, they appear “both to suggest the presence of corresponding data when these data are not in fact present, and to twist any fresh observation of data into conformity with the terms of the categories.” Chen & Hanson, *supra* note 13, at 1252–53 (quoting Karl N. Llewellyn, *A Realistic Jurisprudence—The New Step*, 30 COLUM. L. REV. 431, 453 (1930)).

<sup>24</sup> Kaye, *supra* note 13, at 572–73.

<sup>25</sup> Chen and Hanson describe the flow as

beginning with the search for, or acquisition of, new information based on individuals’ attention. After focusing on particular pieces of information, individuals then categorize the information. Once it has been attended to and categorized, they can then apply a schema to the information, enabling them to draw inferences and store the information and related inferences in short- and long-term memory.

Chen & Hanson, *supra* note 13, at 1140. For the overall influence of schemas on information processing, they rely on Hazel Markus and Robert Zajonc, “[I]nformation processing may be seen as consisting of schema formation or activation, of the integration of input with these schemas, and of the updating or revision of these schemas to accommodate new input.” Hazel Markus & R.B. Zajonc, *The Cognitive Perspective in Social Psychology*, in 1 THE HANDBOOK OF SOCIAL PSYCHOLOGY 137, 150 (Gardner Lindzey & Elliot Aronson eds., 3d ed. 1985).

recognizable slots we have created. When we are successful, we know how to think and feel about the information without examining it in detail.<sup>26</sup> This lifelong process of “chunking” is an efficient way to acquire, organize, and use information.<sup>27</sup> Researchers say it affects not only our perceptions and interpretations of what is going on in the world, but also our emotions, motivations, and decisions.<sup>28</sup>

The frameworks that human beings create over time depend in part on their historical and cultural context but also on individual factors and experiences. Sometimes labeled *heuristics*, or mental shortcuts, these frameworks include categories, stereotypes, metaphors, analogies, scripts, stories, myths, and a range of other schemas. By a process of comparison, we first chunk things together and create the frameworks. Again by comparison, we channel the new data and information we perceive into these frameworks. The “triggering of prior mental categories by some kind of input . . . is . . . an act of analogy-making.”<sup>29</sup> This channeling is considered analogical rather than mechanical because there is usually some degree of mismatch or “slippage” between the new instance and the prior category.<sup>30</sup> Sometimes, the channeling works the way we usually think about categorization: we have a prototype in mind, and we fit new items into that slot

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<sup>26</sup> Hofstadter, *supra* note 3, at 500. Hofstadter concludes by claiming that thinking “is a series of leaps involving high-level perception, activation of concepts in long-term memory, transfer to short-term memory, partial and context-dependent unpacking of chunks, and then further high-level perception . . . .” The mechanisms “depend on the transfer of tightly packed mental chunks from the dormant area of long-term memory into the active area of short-term memory, and on their being unpacked on arrival, and then scrutinized.” *Id.* at 536.

<sup>27</sup> Hofstadter calls cognition a “relentless lifelong process of chunking—taking small concepts and putting them together into larger and larger ones.” *Id.* at 500.

<sup>28</sup> Kaye, *supra* note 13, at 582–88.

<sup>29</sup> Hofstadter, *supra* note 3, at 503. He describes this analogy-making metaphorically, “[I]t is the mental mapping onto each other of two entities—one old and sound asleep in the recesses of long-term memory, the other new and gaily dancing on the mind’s center stage—that in fact differ from each other in a myriad of ways.” *Id.* at 504.

<sup>30</sup> *Id.* at 503–04.

depending on how similar they are to the prototype. Sometimes, the channeling appears more “metaphorical”: once we assign something to a slot, it takes on new meaning that it did not have before and its fit improves.<sup>31</sup>

Because channeling itself creates new concepts and networks, schematic cognition is recursive and continuous. For example, based on past experience, a “category” is created in the mind. When we encounter a new piece of information, we sift through our storehouse of categorical knowledge to identify it, comparing its features to those associated with our existing categories. We match the new piece with an existing category of items having similar features and infer that the existing category is where it belongs. As the category becomes full of various but similar items, the category itself may have to expand or evolve.

This process is cognitively efficient. Not only does it reduce our mental processing burden, it adds information without additional mental toil. Once new information is fit into a category, the information acquires the features associated with the category, so we know how to think about the information and what to do with it. Because schematic cognition usually operates automatically, without conscious thought or difficult analysis, the process is considered to be “intuitive.” Schematic frameworks or embedded knowledge structures lie around in our long-term memory until something triggers their retrieval. A prompt or a cue, also known as a prime or a stimulus, activates one or more of the embedded knowledge structures, either temporarily or more permanently. Which schemas or categories will be accessed depends on a number of factors, including how recently they have been used, how prominent or novel a particular feature appears to be, and which emotions and motives are associated with the choice.<sup>32</sup> Once information has been tentatively classified, the

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<sup>31</sup> See MAX BLACK, *MODELS AND METAPHORS: STUDIES IN LANGUAGE AND PHILOSOPHY* 39–45 (1962).

<sup>32</sup> How readily the particular knowledge structure is activated depends on a number of factors. These include “primacy,” the effect created by the order of presentation of information (what comes first in a list or a request); “salience,” the effect created by prominence or novelty (who is the only male in the group); “priming,” the effect that results from recency or frequency of past reliance (reading about a related concept just before encountering the new information);

processor usually will apply the most accessible schema to it. Similarly, we are likely to fit ambiguous phenomena into chronically accessible categories, even at the expense of other less accessible but more fitting categories.<sup>33</sup> If there is a slight mismatch, the processor may adjust either the information or the schema to make it fit. The processor may also search through less accessible schema for a better match. “Only if no such schema exists will [the processor] invest the cognitive energies required to create new schemas.”<sup>34</sup>

Once primed, accessible knowledge structures serve as “scans” or “filters” for perception and “frames” or “lenses” for interpretation.<sup>35</sup> An accessible schema provides a “scanning pattern,” which leaves us “ready to detect and perceive certain stimuli” at the expense of others.<sup>36</sup> Schemas are associated with the “confirmation bias:” we are more likely to notice information that matches the activated schemas or knowledge structures.<sup>37</sup> And once activated, knowledge structures affect how we interpret what we see. In this way, the schema becomes the person’s “interpretive frame.”<sup>38</sup>

*B. Our Ability to Recognize Familiar “Chunks” of Information (or Patterns) is at the Core of Both Intuitive and Reflective Decision Making*

Our intuitive and automatic ability to recognize familiar patterns links schematic cognition to the decision-making research. Although this Article will discuss two schools of decision making, both agree on a definition of intuition that grew out of early studies

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and “affect” and “motivation,” the association of emotions and motives. See Chen & Hanson, *supra* note 13, at 1174–1218.

For an application of priming effects to legal persuasion, see Kathryn M. Stanchi, *The Power of Priming in Legal Advocacy: Using the Science of First Impressions to Persuade the Reader*, 82 OR. L. REV. 305, 332–45 (2010).

<sup>33</sup> See Kaye, *supra* note 13, at 580–81.

<sup>34</sup> Chen & Hanson, *supra* note 13, at 1174–75.

<sup>35</sup> See Kaye, *supra* note 13, at 576–86.

<sup>36</sup> *Id.* at 579 (citation omitted).

<sup>37</sup> *Id.* at 579–80.

<sup>38</sup> *Id.* at 582–86.

of chess masters:

The situation has provided a cue; this cue has given the expert access to information stored in memory, and the information provides the answer. Intuition is nothing more and nothing less than recognition [of a parallel pattern or path stored in memory].<sup>39</sup>

The patterns or paths stored in memory are the schemas or embedded knowledge structures on which schematic cognition relies. As the schematic cognition research indicates, intuitive judgments or choices “come to mind on their own, without explicit awareness of the evoking cues and . . . without an explicit evaluation of the validity of these cues.”<sup>40</sup> As a result, intuitive judgments appear to be “automatic, arise effortlessly, and often come to mind without immediate justification.”<sup>41</sup>

Although they are not dichotomous, there are two distinct schools of thought about the effects of schematic cognition on decision making. The first school of thought views intuition—in this same sense of pattern recognition—as more often leading to mistakes and overconfidence, while the second school views intuition as essential to recognizing alternatives for solving a problem. Daniel Kahneman, a psychologist who won the Nobel Prize in economics in 2002, is the best-known representative of the first school, the heuristics and biases branch of research. He and his long-time partner, Amos Tversky, conducted the first study in this field in 1969.<sup>42</sup> Since 1985, Gary Klein, an experimental psychologist, has studied and written about the second school, the field of naturalistic decision making, examining how intuition triggers good decision making in situations such as firefighting, nursing, and military leadership.<sup>43</sup> In a September 2009 article,

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<sup>39</sup> Herbert A. Simon, *What is an “Explanation” of Behavior*, 3 PSYCHOL. SCI. 149, 155 (1992).

<sup>40</sup> Kahneman & Klein, *supra* note 20, at 519.

<sup>41</sup> *Id.*

<sup>42</sup> The original study is included in an appendix in DANIEL KAHNEMAN, *THINKING, FAST AND SLOW* (2011). Kahneman’s book focusing on the “biases of intuition” was a bestseller only a few years after MALCOLM GLADWELL, *BLINK: THE POWER OF THINKING WITHOUT THINKING* (2005) (focusing on the wonders of intuition).

<sup>43</sup> See KLEIN, *supra* note 21, at 1–2; see also GARY KLEIN, *STREETLIGHTS*

Kahneman and Klein reported that after several years of collaboration, they had reached agreement on the circumstances that would allow intuition to yield good decision making.<sup>44</sup> Still, their perspectives are very different: heuristics and biases research<sup>45</sup> concentrates on the “overconfident and biased impressions” that grow out of intuition; Klein’s naturalistic decision-making research focuses on the expertise that may lead to “true intuitive skill.”<sup>46</sup>

As a convenient way of describing a continuum of processes that we draw upon as cognitive demands change, heuristics and biases researchers divide our thinking and reasoning processes into intuitive and analytical categories: System 1 (thinking “fast” or intuitively) and System 2 (thinking “slow” or analytically). System 1 “is rapid, intuitive, emotional, and prone to bias,” while System 2 “is more deliberate, more reflective, more dispassionate, and (it is said) more accurate.”<sup>47</sup> Although the so-called “dual-process” model of information gathering and information processing has been around for some time,<sup>48</sup> much of the recent visibility for System 1 and System 2 thinking can be attributed to Kahneman’s 2011 publication of *Thinking, Fast and Slow*.

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AND SHADOWS: SEARCHING FOR THE KEYS TO ADAPTIVE DECISION MAKING (2009).

<sup>44</sup> See Kahneman & Klein, *supra* note 20, at 524.

<sup>45</sup> Heuristics and biases are two sides of the same coin: the heuristic is an experience-based rule of thumb that often works well, but can also lead to systematic errors or cognitive biases. For more information, see generally Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, 185 SCIENCE 1124 (1974).

<sup>46</sup> Kahneman & Klein, *supra* note 20, at 515.

<sup>47</sup> One critic has argued that “there is a real distinction between intuitive and reflective cognitive processes,” but that many other claims about the differences between System 1 and System 2 are not supported. Peter Carruthers, *The Fragmentation of Reasoning*, in LA COEVOLUCIÓN DE MENTE Y LENGUAJE: ONTOGÉNESIS Y FILOGÉNESIS 1, 1–3 (P. Quintanilla ed., 2013).

<sup>48</sup> The dual-process model described information as being processed along a continuum from (at the heuristic end) effortless perception of information using rules of thumb or stereotypes to (at the systematic end) careful study of the information. See Daniel Kahneman & Shane Frederick, *A Model of Heuristic Judgment*, in HEURISTICS OF INTUITIVE JUDGMENT 49, 49–81 (Thomas Gilovich et al. eds., 2002).

Though much of the book highlights the inaccurate judgments that result from fast (or intuitive) thinking, fast thinking often is not only good, but also essential to our lives. Knowing that the green light means *go* without having to think about it means that we can safely walk across the street within the seconds allowed by the timed traffic signal. System 1 routinely guides our thoughts and actions, and we continue to follow System 1 because it often serves us well. On the other hand, System 1 is the source of “implicit bias,” the result of unconscious mental processes that affect perception, impressions, and judgment because of implicit memories, perceptions, attitudes, and stereotypes.

Compared with System 2 thinking, System 1 thinking appears more related to affect or emotion: it “represents events in the form of concrete exemplars and schemas inductively derived from emotionally significant past experiences.”<sup>49</sup> Which system kicks in for a particular situation depends both on the characteristics of the situation and the emotions affected: when the situations are the same, “the greater the emotional involvement, the greater the shift in the balance of influence from the rational [System 2] to the experiential system [System 1].”<sup>50</sup> System 1’s reliance on affect and emotion makes it “a quicker, easier, and more efficient way to navigate in a complex, uncertain, and sometimes dangerous world.” In addition, failing to listen to System 1 can lead decisions astray when they include an emotional component.<sup>51</sup>

On the other hand, slow thinking is considered essential during at least some parts of the process of making more complex decisions. Even a relatively simple decision such as choosing whether to look to the right or to the left for oncoming traffic before walking across the street might involve System 2 thinking. If a pedestrian from the United States found himself in London at a crosswalk that did not have a sign instructing him to “look right,” he should reflect on the choice rather than following the intuitive and usually correct response—to look first to the left. According to

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<sup>49</sup> Veronika Denes-Raj & Seymour Epstein, *Conflict Between Intuitive and Rational Processing: When People Behave Against Their Better Judgment*, 66 J. PERSONALITY & SOC. PSYCHOL. 819, 819 (1994).

<sup>50</sup> *Id.*

<sup>51</sup> Paul Slovic, *Affect, Reason, and Mere Hunches*, 4 J.L. ECON. & POL’Y 191, 192, 201–04 (2007).



the heuristics and biases school of thought, application of System 2 thinking almost always improves decision making. From this perspective, the quick impressions created by System 1 will control our judgments and decisions unless the more deliberate thinking of System 2 takes over to modify or override the System 1 responses.<sup>52</sup>

While Kahneman has “spent much of his career running experiments in which intuitive judgment was commonly found to be flawed,” Klein has spent most of his career studying expert decision making and “thinking about ways to promote reliance on expert intuition.”<sup>53</sup> The kind of “intuition” Klein advocates is not the so-called *gut reaction* that leads to instant knowledge that someone is telling the truth or lying, but the flash of recognition that comes from a cue alerting the problem solver to an analogous pattern, allowing the expert to draw on past or known experiences to come up with parallel patterns or paths. Through his research involving a range of experts, Klein found that in real-life complex situations, experts rely on intuition to solve problems. They are able to solve problems not because their intuition is necessarily correct, but because intuition is how they identify workable options to test.<sup>54</sup>

The intuitive problem-solving model that Klein describes blends two processes: (1) how decision makers “size up” a situation and thus recognize a possibly workable course of action, and (2) how they evaluate the course of action by simulating or imagining its results.<sup>55</sup> Klein points out that this process differs from the rational choice model of decision making (the decision maker lines up the pluses and minuses of each option and decides

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<sup>52</sup> *Id.* at 201; *see also* Kahneman & Klein, *supra* note 20, at 519.

<sup>53</sup> Kahneman & Klein, *supra* note 20, at 515. In a 1992 article, cognitive psychologist James Shanteau pointed out that while “[j]udgment and decision research has shown that experts make flawed decisions due, in part, to the biasing effects of judgmental heuristics,” cognitive science research “views experts as competent and different from novices in nearly every aspect of cognitive functioning.” James Shanteau, *Competence in Experts: The Role of Task Characteristics*, 53 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 252, 252 (1992).

<sup>54</sup> *See* Kahneman & Klein, *supra* note 20, at 516.

<sup>55</sup> KLEIN, *supra* note 21, at 24.

by weighing them) in several ways. First, rather than comparing options, the decision maker focuses on assessing a situation and finding familiar features. Second, in contrast with the more formal comparison implied by the rational choice model, the decision maker quickly evaluates possible courses of action by imagining how they would be carried out. Finally, rather than the best option, the decision maker looks for the first workable option. Because the decision maker often finds the first option to be workable, the decision maker usually generates and evaluates alternatives one at a time. By imagining what will happen as the first workable option is being carried out, the expert decision maker is able to identify weaknesses and make adjustments.<sup>56</sup>

In the Klein model of intuitive problem solving, experts engage in both an intuitive process “that brings promising solutions to mind and a deliberate activity in which the . . . solution is mentally simulated . . . .”<sup>57</sup> In the Kahneman model, System 2 is involved in careful reasoning and decision making as well as in continuous monitoring. For the heuristics and biases researchers, “[w]hen there are cues that an intuitive judgment could be wrong, System 2 can impose a different strategy . . . .”<sup>58</sup> To sum up, intuition opens minds for further thinking in the Klein approach, but intuition exists to be corrected in the Kahneman model.

## II. WHEN WE PROCESS NOVEL METAPHORS, WE MAY BE REQUIRED TO ENGAGE IN MORE REFLECTIVE DECISION MAKING

Analogy and metaphor take different linguistic forms, but they work in similar ways. The linguistic difference is very simply illustrated as follows:

Analogy: A is like B (Juliet is like the sun.)

Metaphor: A is B (Juliet is the sun.)

In both instances, A is the target domain, and B is the source

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<sup>56</sup> *Id.* at 30.

<sup>57</sup> Kahneman & Klein, *supra* note 20, at 519.

<sup>58</sup> *Id.*

domain. When the purpose of using an analogy or a metaphor is to explain, the target (A) typically is the “new” concept or the more abstract idea, and the source (B) is the more familiar or concrete thing. The analogy or the metaphor should make A more understandable for one of several reasons: because B is a similar, but more familiar or more concrete example; because B provides a more abstract category of examples into which A seems to fit; or because B helps the reader see A in a new light. The inferences that derive from analogy are similar to metaphorical inferences: “[b]oth analogy and metaphor involve a similarity relation between two objects, and the similarity relation transfers meaning from one object (the source) to another (the target).”<sup>59</sup>

Recent analogy research suggests that the important distinction is not between analogy and metaphor but between conventional metaphor and novel metaphor.<sup>60</sup> This distinction is elusive, in part because novel metaphors may over time become conventional.<sup>61</sup> The difference may usefully be viewed as akin to the difference between a poetic metaphor and a propositional metaphor.<sup>62</sup> A propositional metaphor, although not literally true, suggests that one thing should be seen as and treated as if it were another (the First Amendment is a wall of separation). In contrast, poetic metaphor (all the world’s a stage) proposes a shift in viewpoint or perspective, a new take, a way of seeing that makes you consider a familiar concept in a new light.<sup>63</sup>

Both conventional and novel metaphors may serve as schemas or embedded knowledge structures to be pulled from memory when needed. The use of conventional metaphors appears to support System 1 thinking: when you repeat a conventional metaphor, you are hoping that the audience will “automatically”

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<sup>59</sup> Dan Hunter, *Teaching and Using Analogy in Law*, 2 J. ALWD 151, 155 (2004). According to Dan Hunter, the major difference is that analogy “has an explicit explanatory or predictive component,” and metaphor does not. *Id.*

<sup>60</sup> See Gentner et al., *Metaphor is Like Analogy*, *supra* note 6, at 227–36.

<sup>61</sup> See *id.*

<sup>62</sup> See Linda L. Berger, *Metaphor in Law as Poetic and Propositional Language*, EUR. LEGACY: TOWARD NEW PARADIGMS [hereinafter Berger, *Metaphor in Law*] (forthcoming).

<sup>63</sup> See Elisabeth Camp, *Metaphor in the Mind: The Cognition of Metaphor*, 1 PHIL. COMPASS 154 (2006) [hereinafter Camp, *Metaphor in the Mind*].

accept that the target fits into the category slot of the source. The processing of a novel metaphor, on the other hand, begins with the automatic, intuitive thinking of System 1—recognition of a familiar pattern or path—but the audience is then required to work through an alignment, comparison, and inference process that blends intuitive and analytical (or more reflective) thinking.<sup>64</sup>

#### *A. How Do We Process Analogies?*

For the analogy researchers, analogy does not work in the same way as a literal similarity or a category-like abstraction.<sup>65</sup> For example, in the literal similarity—*The X12 star system in the Andromeda galaxy is like our solar system*—there are literal similarities both in the characteristics of the objects involved (the X12 star is yellow and mid-sized, as is our sun) and in the relationships among them (the planets revolve around the X12 star, as they do around our sun).<sup>66</sup> But the analogy—*The hydrogen atom is like our solar system*—depends mostly on similarities in the structure of the relationships in the target and the source: an electron revolves around the nucleus like the planets revolve around the sun. Some characteristics of the objects may be literally similar, but it is irrelevant that others are not.<sup>67</sup> Conversely, the abstraction—*The hydrogen atom is a central force system*—depends only on similarities in relationships.<sup>68</sup>

The idea that human cognition could be studied “as a form of computation” led to research into cognitive processes, including perception, memory, and problem solving.<sup>69</sup> The broader study of analogy by cognitive scientists came later, starting in about 1980.<sup>70</sup>

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<sup>64</sup> See *infra* Part II.B.

<sup>65</sup> Gentner, *Structure-Mapping*, *supra* note 4, at 159–61.

<sup>66</sup> *Id.* at 159.

<sup>67</sup> See *id.* at 159–61.

<sup>68</sup> *Id.* at 160–61.

<sup>69</sup> K.J. Holyoak et al., *Introduction: The Place of Analogy in Cognition*, in *THE ANALOGICAL MIND: PERSPECTIVES FROM COGNITIVE SCIENCE* 1, 7 (Dedre Gentner et al. eds., 2001).

<sup>70</sup> *Id.* at 7. Analogy research has been conducted by a number of disciplines through a range of methods, including computer simulations, psychological experiments, field observation, and linguistic analysis. *Id.* at 10.

This exploration of the relationships among learning, memory, and reasoning grew out of the emergence of an alternative to rule-based reasoning that focused on the usefulness of retrieving “cases or analogs stored in long-term memory when deriving solutions to novel problems.”<sup>71</sup> Psychologist Dedre Gentner and her colleagues proposed much of the current model of analogy processing.<sup>72</sup> They found that (1) the similarities in analogy lie mostly within the relationships present in both the target and source domains rather than in the features of the individual objects within those domains, and (2) some analogical similarities depend on higher-order relations, or relations between relations.<sup>73</sup> Others studying the role of analogy in problem solving have developed models and theories suggesting that multiple constraints affect our assessments of the effectiveness of analogy.<sup>74</sup>

The analogy studies appear to have reached a consensus on some important elements of a hybrid model of analogy processing, the “structural alignment” model.<sup>75</sup> This model incorporates alignment (between the target and the source) and projection (from the source to the target). According to the model, the first step in processing an analogy is that one or more relevant analogs (or schema) are accessed from long-term memory. The processor (or reader) then begins comparing the source and the target to identify matches and to align the corresponding parts of the target and the source. After that, the reader maps source attributes onto the target. The mapping allows analogical inferences derived from the source to transfer to the target. These inferences are evaluated and adapted to fit the target if necessary. In addition, new categories and schemas may be generated and new understandings of old schemas may be added to memory banks.<sup>76</sup>

While processing an analogy, the alignment and projection (or mapping) may involve any or all of the following: (1) objects or features of the target and the source as well as the properties of

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<sup>71</sup> *Id.* at 7–8.

<sup>72</sup> For a summary of the study of analogy as cognitive process, see *id.* at 7–10.

<sup>73</sup> *Id.* at 8.

<sup>74</sup> *Id.* at 8–9.

<sup>75</sup> *Id.* at 9.

<sup>76</sup> *Id.* at 9–10.

those objects or features; (2) relationships between the objects or features of the target and the source; and (3) higher-order relationships between the relationships. During the alignment process, as discussed above, the reader looks for similarities while comparing the various elements of the two situations. But there are constraints on analogy making, primarily constraints of consistency and systematicity. Not only must there be a one-to-one correspondence between the aligned elements in the target and the source, but also there must be parallel connections. In addition to structural consistency, alignment is guided by the principle of systematicity: a system connected by causal relationships is preferred over independent matches. Thus, the reader does not project inferences that are unconnected but instead only those that “complete the common system of relationships.”<sup>77</sup> In other words, the target and the source must be comparable based on “clustered groups of relations which are able to explain why the system works as it does.”<sup>78</sup> According to Gentner, this occurs because of “our tacit preference for coherence and deductive power in interpreting analogy.”<sup>79</sup>

The multi-constraint theory of analogy affects the lawyer’s use of analogies in legal persuasion. Dan Hunter describes these as constraints at the surface or feature level, constraints at the structural or relationship level, and constraints of purpose.<sup>80</sup> At least some surface-level similarity appears to be necessary between the features of the source and of the target. In fact, simple fact-matching often appears to be the basis of legal arguments based on analogy.<sup>81</sup> Still, surface-level similarity is only the first step in

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<sup>77</sup> Dedre Gentner et al., *Viewing Metaphor as Analogy*, in *ANALOGICAL REASONING: PERSPECTIVES OF ARTIFICIAL INTELLIGENCE, COGNITIVE SCIENCE, AND PHILOSOPHY* 171, 172 (Daniel H. Helman ed., 1988).

<sup>78</sup> *Id.*

<sup>79</sup> *Id.*

<sup>80</sup> See Hunter, *supra* note 4, at 159–67 (relying on KEITH J. HOLYOAK & PAUL THAGARD, A COMPUTATIONAL MODEL OF ANALOGICAL PROBLEM SOLVING IN SIMILARITY AND ANALOGICAL REASONING 242 (Stella Vosniadou & Andrew Ortony eds., 1989); KEITH J. HOLYOAK & PAUL THAGARD, MENTAL LEAPS: ANALOGY IN CREATIVE THOUGHT (1995)).

<sup>81</sup> *Id.* at 159–60 (discussing studies demonstrating that surface-level similarities predict outcomes and noting that surface-level similarities may be

analogy: many things can be argued to be similar to one another at the level of surface features. The structural constraint requires a finding of consistent structural parallels between the target and the source. If the surface level describes objects, the structural level describes relationships between or among objects. The final constraint is the purpose for using the analogy, which, as Hunter points out, may be particularly important in using analogies for legal persuasion. If a particular analogy helps one side's case more than another, the lawyer's purpose will influence others' perceptions of whether the analogy is good or not.<sup>82</sup>

### *B. How Do We Process Metaphors?*

Like Aristotle, analogy researchers now believe that "comparison is the fundamental process that drives metaphor."<sup>83</sup> Moreover, they conclude that "[n]ovel metaphors are understood only by comparison," and even though "[c]onventional metaphors can be understood by accessing stored abstractions, . . . these metaphoric abstractions are a product of past comparisons."<sup>84</sup> This conclusion differs from other current and traditional models of metaphor processing.<sup>85</sup>

For example, the model of juxtaposition suggested that metaphor works by contrasting the target (Juliet) with the source (that is, with any another object, event, or situation, like the sun). The juxtaposition was thought to nudge us to attend to previously unnoticed features of the target. This model, however, failed to explain how metaphors could generate new information.<sup>86</sup> "Category-transfer" models proposed that metaphor works by forming ad hoc categories, abstracting from a prototype of the source, and then transferring to the target. When we think of life as a journey, we derive abstract categories from the concrete features of a journey to produce a more general schema for understanding

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sufficient when a judge must decide many cases in a short period of time).

<sup>82</sup> *Id.* at 166–67.

<sup>83</sup> Gentner et al., *Metaphor is Like Analogy*, *supra* note 6, at 233.

<sup>84</sup> *Id.* at 234 (alteration in original).

<sup>85</sup> *See* Camp, *Metaphor in the Mind*, *supra* note 63, at 161–62.

<sup>86</sup> *Id.*

life. Category-transfer models explained why metaphor can help organize our understanding of an unfamiliar target, but they did not account for the different effects of applying the same source to different targets.<sup>87</sup> In contrast to the category-transfer model, the “feature-matching” model aligned the source and the target and directly compared their features. The feature-matching model could not, however, explain some of metaphor’s broader organizational effects or how metaphors created new information.

An emerging consensus supports the application of the analogy-processing model of “structural alignment” to the processing of metaphor.<sup>88</sup> Dedre Gentner and her colleagues have studied how we process what Gentner calls “extended metaphoric systems,” such as *argument as container*, *love as a journey*.<sup>89</sup> The basic explanation they sought was whether people “possess large-scale conceptual metaphors” that are ready-made or whether such conceptual metaphors are understood because mappings are “constructed online,” as they are in analogy processing.<sup>90</sup> Their results indicated that the online-construction, structure-mapping theory best explains the processing of novel metaphors: that is, these “metaphors are processed as structural alignments, based on some initial relational commonalities.”<sup>91</sup> After that, “further inferences are projected from the more concrete or familiar [source] to target.”<sup>92</sup> In other words, when a reader encounters a novel metaphor, the reader recognizes parallel features and structures shared by the target and the source, and then the reader creates new understanding by projecting inferences from the source to the target.<sup>93</sup>

Gentner and her co-authors concluded that the same “basic

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<sup>87</sup> *Id.* at 162–63.

<sup>88</sup> Holyoak et al., *supra* note 69, at 9.

<sup>89</sup> Gentner et al., *Metaphor is Like Analogy*, *supra* note 6, at 202. These metaphors were discussed at length in LAKOFF & JOHNSON, *METAPHORS*, *supra* note 2.

<sup>90</sup> Genter et al., *Metaphor is Like Analogy*, *supra* note 6, at 206–07.

<sup>91</sup> *Id.* at 207.

<sup>92</sup> *Id.*

<sup>93</sup> *Id.* at 208. One difference from Lakoff’s theory is that the abstract target is “not structured de novo by [the] concrete [source], but rather begins with some structure of [its] own . . . .” *Id.*



processes of analogy are at work in metaphor . . . structural alignment, inference projection, progressive abstraction, and re-representation . . . .”<sup>94</sup> Their research suggested that as metaphors move from being novel to becoming conventional, the reader switches her mental processing of the metaphor from making a comparison to fitting an unknown experience into a prior categorization.<sup>95</sup> As a result, according to these researchers, when the reader is interpreting a novel metaphor, she is engaged in creating meaning, but when the reader is interpreting a conventional metaphor, she is retrieving meaning from a mental storeroom.<sup>96</sup>

We can see something of the evolution of metaphorical processing from comparison to categorization by examining the career of the now-conventional metaphor that *the mind is a computer*. When computers were new, some scientists had suggested the mirror-image metaphor—*the computer is a brain*—as a way to describe and explain a machine that was capable of processing symbols, something that previously had been done only by human beings.<sup>97</sup>

Later, when scientists began studying the mind as an information-processing mechanism, it was in part because the mind had become the target of the metaphor (the more abstract concept to be explained), and the computer now served as the more concrete or familiar source for transferring understanding.<sup>98</sup> When this later metaphor—*the mind is a computer*—was first used, it was novel, that is, the source domain (the computer) had not previously been applied to the target domain (the mind). To understand the metaphor, the reader had to try to align the characteristics and relationships existing within a computer with those existing within a mind: for example, both appear to take in

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<sup>94</sup> *Id.* at 243.

<sup>95</sup> *Id.* at 230.

<sup>96</sup> *Id.* at 241–42 (noting that some metaphors end up as conventionalized systems of reasoning).

<sup>97</sup> Gerd Gigerenzer & Daniel G. Goldstein, *Mind As Computer: Birth of a Metaphor*, 9 CREATIVITY RES. J. 131, 131, 134–35 (1996) (arguing that tools become theories because scientists tend to rely on analogies “between new tools and nature, society, or mind”).

<sup>98</sup> *See id.* at 135–43.

data and to process it before producing some kind of report.<sup>99</sup> In the beginning of its career as a novel image, the *mind is a computer* metaphor generated not only a new way of seeing but also a new way of studying the mind.<sup>100</sup> Now that the metaphor has become conventional, saying that *the mind is a computer* appears to state only the obvious—that the mind fits into the category of an information-processing mechanism.<sup>101</sup>

Although Gentner and her colleagues found that individual metaphors may evolve during their careers from alignment-based processing (side-by-side comparison of source and target) to projection-based processing (directional projection from source to target), their findings appear to contradict some aspects of the cognitive metaphor theory of George Lakoff and Mark Johnson. Lakoff and Johnson argued that domain-level metaphors construct thought, primarily through one-way projection from source to target.<sup>102</sup> They concluded that “metaphor shapes thought by mapping onto the new experience the structures, inferences, and reasoning methods of the old.”<sup>103</sup> In this view, rather than drawing on existing similarities between the source and the target, metaphorical processing creates similarities by providing a source structure through which to view the target. Thus, when you use a conceptual metaphor such as *justice is balancing*, the reader invokes an already-stored conceptual mapping and applies it to justice.

Lakoff and Johnson argued not only that metaphor creates

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<sup>99</sup> See *id.* at 136.

<sup>100</sup> Some cognitive scientists credit the analogy between information processing by humans and the processing that is performed by digital computers—the analogical insight “that cognition can be systematically analyzed as a form of computation”—for guiding much of the early work in modern cognitive science. Holyoak et al., *supra* note 69, at 7.

<sup>101</sup> Gigerenzer and Goldstein note that once computers were used in every psychological laboratory, “broad acceptance of the metaphor of the mind as computer followed.” Gigerenzer & Goldstein, *supra* note 97, at 143.

<sup>102</sup> See, e.g., LAKOFF & JOHNSON, METAPHORS, *supra* note 2, at 4.

<sup>103</sup> Linda L. Berger, *What is the Sound of a Corporation Speaking? How the Cognitive Theory of Metaphor Can Help Lawyers Shape the Law*, 2 J. ALWD 169, 171 (2004) [hereinafter Berger, *What is the Sound of a Corporation Speaking?*]. In my previous article, I applied Professors Lakoff and Johnson’s theory to legal persuasion. See *id.*

cognitive content but also that metaphor is the fundamental process in both thought and expression.<sup>104</sup> They were persuaded by their research—much of it addressing the use of a concrete, experienced source domain to structure and understand a more abstract target domain—that metaphor is absorbed through long, constant, and unconscious experience. The resulting conceptual metaphors provide tacit knowledge that has become embedded through unavoidable and repeated experience.<sup>105</sup> Some critics of Lakoff and Johnson’s cognitive theory of metaphor dispute the overarching claim that metaphor is *the* fundamental feature of thought.<sup>106</sup> These critics point out that metaphor is not the only language process that works in a similar way. Other stored knowledge structures—including schema, analogy, and narrative—also create new meaning by mapping the source domain on top of the target or by transferring features from the source to the target.<sup>107</sup>

Based on their studies of analogy and metaphor, Gentner and her co-authors concluded that the Lakoff and Johnson theory of how metaphors construct meaning might apply to conventional metaphors but not to novel ones.<sup>108</sup> Specifically, rather than alignment and projection moving solely from the source to the target, Gentner and her colleagues found that understanding a metaphor begins with a symmetrical alignment process. Once an alignment is found, then further inferences are directionally projected from source to target. That is, directional inference building—from source to target—arises after the initial stage, but the initial stage is side-by-side.<sup>109</sup> When we try to understand a novel metaphor, we structurally align concrete or literal representations of the source and target. As we repeat these

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<sup>104</sup> E.g., LAKOFF & JOHNSON, *METAPHORS*, *supra* note 2.

<sup>105</sup> See LAKOFF & JOHNSON, *PHILOSOPHY IN THE FLESH*, *supra* note 2, at 9–15.

<sup>106</sup> See, e.g., Camp, *Metaphor in the Mind*, *supra* note 63, at 158–60.

<sup>107</sup> The argument that all thinking is fundamentally metaphorical may be undermined by studies showing that unfamiliar and novel metaphors take longer to process than literal sentences. Gentner et al., *Metaphor Is Like Analogy*, *supra* note 6, at 202, 216.

<sup>108</sup> *Id.* at 216–17.

<sup>109</sup> *Id.* at 227.

comparisons over time, we can abstract a more general metaphorical meaning, and we begin to associate the abstract meaning with the source term.<sup>110</sup> Through repeated instances of structural alignment, we inductively create metaphoric categories.<sup>111</sup>

Novel metaphors use sources that refer to specific concepts not yet associated with more general categories. They are interpreted as comparisons between features and relationships associated with both the literal source and the literal target. Conventional metaphors involve sources that refer both to a literal concept and to an associated metaphoric category. A novel metaphor, according to this research, is processed by aligning the literal senses of both terms, while a conventional metaphor may be interpreted either by aligning the target with the literal source or by aligning the target with the source's abstract metaphoric category.<sup>112</sup>

For the purposes of legal persuasion, what this suggests is that a reader who is asked to interpret a novel metaphor will be engaged in the creation of meaning, while the reader who is confronted with a conventional metaphor will do nothing more than retrieve an abstract metaphoric category. Thus, when it was a novel metaphor (and phrased as an analogy), processing the meaning of *A mind is like a computer* involved an active and reflective comparison of the source and the target. But as the metaphor became conventional, understanding the use of *A mind is a computer* became an automatic process of categorization. The application of this finding to legal persuasion is discussed in Part III.

### *C. How Does Metaphor Differ from Analogy?*

Analogical reasoning that compares case precedents is an obvious example of lawyers' use of analogy to persuade. But analogy has many persuasive applications beyond the use of prior precedents "to predict, explain or justify the outcome of the

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<sup>110</sup> *Id.* at 228.

<sup>111</sup> *Id.*

<sup>112</sup> *Id.* at 229–30.

currently undecided case.”<sup>113</sup> The discussion so far has emphasized the similarities between metaphor and analogy: both are ways of seeing one thing as another, and both are capable of transferring inferences from one domain to another. But there also are differences relevant to those interested in legal persuasion. For example, Dan Hunter distinguishes between metaphor and analogy on the ground that analogy has an explicit predictive or explanatory effect.<sup>114</sup> Overall, metaphor appears more varied, more ambiguous and thus more flexible, and more tied to emotion than analogy.

First, there are many more kinds of metaphor than of analogy.<sup>115</sup> Some metaphors appear to be based on analogical comparisons of relationships between aspects of the source and the target or on similar features or attributes. *My job is a jail* is an example of a metaphor that appears to be based on an analogical comparison of relationships rather than of surface features. On the other hand, *his eyes were burning coals* is an example of a metaphor apparently based on a comparison of features rather than of relationships.<sup>116</sup> The analogy researchers have found that metaphors vary more in structure than do analogies, involving matches between features or relationships or both, and that they can violate the constraint of structural consistency. Metaphors also may include very complex blends.<sup>117</sup> Though metaphors may be based on similarities between relationships or between features, some studies indicate that when people interpret metaphors, as when they interpret analogies, they tend to rely more on relationships than common features.<sup>118</sup> Even though metaphor is often used for novel and vivid nonliteral comparisons (unlike analogy), the term is also applied to metaphorical systems that are so familiar they have become invisible. While some metaphors are considered “dead,” because they no longer convey any nonliteral meaning, others have become conventional systems of

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<sup>113</sup> Hunter, *supra* note 59, at 153.

<sup>114</sup> *Id.* at 152.

<sup>115</sup> Gentner et al., *Metaphor is Like Analogy*, *supra* note 6, at 240.

<sup>116</sup> *Id.* at 200.

<sup>117</sup> *Id.*

<sup>118</sup> *Id.* at 241–42.

reasoning.<sup>119</sup>

Second, compared with analogy, metaphor appears to be a more nonliteral use of language and thus more ambiguous and flexible. The author of a metaphor is able to advance positions without being held to them. When you use a metaphor, the listener usually understands that you have said one thing but that you likely have meant another (even if the listener does not understand your meaning). When you use an analogy, it is hard to deny that you have explicitly stated that *the corporation is like a person* and so you may have to provide supporting arguments to establish the similarities. When you use a metaphor, you can deny that you intended to argue for any explicit similarities: when I said *the corporation is a person*, I meant only that *a person* is an easier way to visualize an abstract entity.

Finally, metaphor is more associated with emotion and expression than analogy. Although metaphors are also used to explain and predict, analogy is mostly confined to explanatory-predictive contexts.<sup>120</sup> Poetic power is rarely attributed to analogy, but the poetic power of metaphor is often acknowledged. This power is thought to arise from metaphor's invitation to see one thing "as another," providing us with a novel perspective and generating new information in the process. In other words, we don't see Juliet "as" the sun. But something happens to our view of Juliet that is similar to our viewing the classical Gestalt figure in which, depending on your perspective, one of two different women seems to appear.<sup>121</sup> The Gestalt figure always contains the elements of both a young woman and an old woman, and the elements themselves do not change. Instead, they slip and slide before our eyes until they click into place. Although we now see something we did not see before, it is not because we have received new information: "Rather, the difference is experiential, intuitive, and holistic."<sup>122</sup>

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<sup>119</sup> *Id.*

<sup>120</sup> *Id.* See also Hunter, *supra* note 59, at 152.

<sup>121</sup> JEFFREY S. NEVID, *PSYCHOLOGY: CONCEPTS AND APPLICATIONS* 120 (4th ed. 2011).

<sup>122</sup> Camp, *Showing, Telling, and Seeing*, *supra* note 4, at 2.

III. USED FOR LEGAL PERSUASION, NOVEL CHARACTERIZATIONS AND METAPHORS MAY TAP INTO ALTERNATIVE SCHEMAS, PROMPT MORE REFLECTIVE COMPARISON, AND ACTIVATE OTHER PERSUASIVE KNOWLEDGE STRUCTURES

Sometimes the automatic operation of System 1 thinking—simply pulling a familiar pattern from memory—will resolve a legal problem to the client’s satisfaction. The lawyer who must overcome the easily accessible answers of System 1 thinking in order to persuade faces a more difficult task. Substantial research indicates that it is very difficult to overcome System 1 thinking by providing new information.<sup>123</sup> Still, we all know of instances when the “content of our categories”—even the “content” of our stereotypes—has changed significantly over time.<sup>124</sup> For example:

At the end of the nineteenth century, the illegal immigration problem in America had a Chinese face. . . . And now, the racial meaning ascribed to the very same body is often “model minority.”<sup>125</sup>

Even though the addition of new information may be able to reshape our embedded knowledge frameworks over time, the process appears unpredictable, lengthy, and incremental. Rather than attempting to reshape schemas and knowledge structures by providing new information, the cognitive research discussed here supports the use of novel characterizations and metaphors to generate alternative ways of perceiving and interpreting the existing information—to shift *how* rather than *what* we see. When lawyers construct a theory of the case, they consciously or intuitively use or avoid embedded knowledge structures. These structures scan and filter what the audience perceives, and they can be used to frame and channel how the reader interprets those perceptions. As both filter and frame, the range of available knowledge structures within legal persuasion likely includes (1)

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<sup>123</sup> See, e.g., Chen & Hanson, *supra* note 13, at 1132 (explaining that additional information is rarely enough to change judgments that flow automatically from schema recognition).

<sup>124</sup> Kang, *supra* note 17, at 1536 (citing Linda Hamilton Krieger, *The Content of Our Categories: A Cognitive Bias Approach to Discrimination and Equal Employment Opportunity*, 47 STAN. L. REV. 1161, 1164–65 (1995)).

<sup>125</sup> *Id.*

ideographs (individual words or terms that represent a collection of societal values and beliefs such as liberty, equality, neutrality, freedom, property);<sup>126</sup> (2) characterizations (words or phrases that describe easily recognized social agents within the culture and become the “building blocks of narratives,” including such terms as Boy Scouts, Founders, Liberals, Southerners);<sup>127</sup> (3) narratives and myths (recognizable, structured plots that organize and make understandable a series of events, including, for example, the quest, overcoming the monster, rags to riches);<sup>128</sup> and (4) metaphors and analogies (the often-concrete sources used to familiarize us with and help us understand new and abstract ideas, such as a marketplace of ideas, a sliding scale, or a balancing test).<sup>129</sup>

The use of novel characterizations and metaphors is supported not only by the cognitive research discussed here but also by language experts and philosophers who have sketched the ways that characterizations and metaphors can prompt new ways of seeing.<sup>130</sup> For example, Elisabeth Camp<sup>131</sup> writes that new ways of seeing may be brought about through a process involving characterizations and perspectives.<sup>132</sup> In Camp’s view, one characterization is used to filter, frame, or structure another.<sup>133</sup> I could, for example, use my characterization of a lioness to

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<sup>126</sup> This list is adapted from a list of units for critical rhetorical analysis in Marouf Hasian Jr., *The Importance of Critical Legal Rhetorics, in* LEGAL MEMORIES AND AMNESIAS IN AMERICA’S RHETORICAL CULTURE 1, 14 (2000). See also Michael Calvin McGee, *The “Ideograph”: A Link Between Rhetoric and Ideology*, 66 Q. J. SPEECH 1, 6–7 (1980).

<sup>127</sup> Hasian, *supra* note 126, at 14–15.

<sup>128</sup> *Id.* at 15.

<sup>129</sup> Hasian does not include metaphor and analogy in his list. See *id.* at 14–15.

<sup>130</sup> This part draws on Berger, *Metaphor in Law, supra* note 62.

<sup>131</sup> Camp is a philosophy professor who writes that her interests lie “in the overlap between the philosophy of mind and the philosophy of language.” See *Elisabeth Camp*, UNIV. OF PA., <http://www.sas.upenn.edu/~campe/> (last modified Mar. 21, 2011).

<sup>132</sup> See Elisabeth Camp, *Saying and Seeing-as: The Linguistic Uses and Cognitive Effects of Metaphor* (2003) (unpublished Ph.D. dissertation, University of California Berkeley) (on file with author).

<sup>133</sup> *Id.*



structure my characterization of Hillary Clinton, the former U.S. Senator and Secretary of State. This process would begin with the most prominent and central features in the framing characterization (the lioness), seek matches for them within the subject characterization (Clinton), and then highlight the prominence and centrality of the matched features. Restructuring one characterization in light of another brings an intuitive result: if it works, you will come to “see” Clinton as a lioness without knowing how your insight came about. According to Camp, metaphorical perspectives have the same effect, but they are more general and not tied to a particular subject: “a perspective provides an intuitive, holistic principle for organizing our thoughts about some topic.”<sup>134</sup> It does so “by imposing a complex structure of relative prominence on them, so that some features stick out in our minds while others fade into the background, and by making some features especially central to explaining others.”<sup>135</sup> For instance, a perspective might be a political orientation or a general worldview that individuals are responsible for helping themselves. Like a characterization, a perspective may carry attitudes, emotions, and values. Rather than a complete, complex thought, a perspective provides a tool for thinking that “helps us to do things with the thoughts we have: to make quick judgments based on what’s most important, to grasp intuitive connections, and to respond emotionally.”<sup>136</sup> Perspective also “provides us with a ‘way to go on,’ incorporating new thoughts about the focal topic and often about related topics as well.”<sup>137</sup>

According to Camp, the process of metaphorically “seeing as” is not a *what* but a *how*. Rather than changing what exists, “[i]t imaginatively alters *how* we structure and color our thoughts about what *is* so.”<sup>138</sup> Seeing a target through a characterization requires the viewer to re-structure her thinking to make the relevant features play an appropriately prominent or central role. Trying on a perspective requires the viewer to re-configure her patterns of

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<sup>134</sup> Camp, *Two Varieties of Literary Imagination*, *supra* note 1, at 110–11.

<sup>135</sup> *Id.* at 111.

<sup>136</sup> *Id.* (alteration in original).

<sup>137</sup> *Id.*

<sup>138</sup> *Id.* at 116.

thought about a broader collection of topics.<sup>139</sup>

*A. Using Novel Characterizations to Tap into Alternative Schemas and Complicate Group Stereotypes*

Like other unconscious uses of schematic cognition, stereotyping helps us manage information overload. Stereotypes are nothing more than “schemas for groups of people.”<sup>140</sup> Because we cannot process and interpret all the data we perceive about each individual, stereotypes allow us to efficiently (if inaccurately) identify the person we have encountered, make assumptions and predictions about that person, and plan our own behavior in response. Stereotyping illustrates that schematic thinking is usually unconscious and difficult to control, and that social and cultural forces are very much involved when we construct these embedded knowledge structures.

Both explicit and indirect approaches have been suggested as ways to “neutralize” or counter the effects of schema or stereotypes associated with individuals who might be perceived as members of disfavored groups. When a group stereotype is expected to have negative effects on the person being represented, an attorney might point out the shortcomings of the categorization and explicitly argue for more individually appropriate characterizations.<sup>141</sup> More indirect arguments may affect the emotions or self-images of audience members or may prime an audience with ideals of fairness and equality.<sup>142</sup>

The cognitive research discussed in this Article suggests

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<sup>139</sup> *Id.* at 111–16.

<sup>140</sup> Kaye, *supra* note 13, at 593. They are “expectancies about a social group,” and they include “beliefs about the probability that particular traits, features, characteristics, opinions, and behaviors will be observed in those people at some point during our (or someone else’s) future interaction with them.” *Id.* (citing KUNDA, *supra* note 22, at 314–15; MOSKOWITZ, *supra* note 22, at 439).

<sup>141</sup> See Pamela Wilkins, *Confronting the Invisible Witness: The Use of Narrative to Neutralize Capital Jurors’ Implicit Racial Biases*, 115 W. VA. L. REV. 305, 331–32 (2012) (cataloging a number of suggestions for neutralizing or countering implicit bias).

<sup>142</sup> *Id.*

another approach: use of a novel characterization or metaphor—one that already exists but has not previously been associated with this target—to shift the decision maker’s perspective. Within any decision-making context, multiple and various schemas might be triggered. Which of the possible schemas is selected to “actively influence [an] interaction depend[s] on numerous variables, such as primacy (what gets activated first), salience (which schemas catch attention), accessibility (which schema cues can be retrieved in memory easily, perhaps because of recent primacy), and individuating information.”<sup>143</sup>

In a recent article, Professor Pam Wilkins illustrated the use of novel characterizations and metaphors to counter role stereotypes affecting death-penalty defendants.<sup>144</sup> As she noted, criminal prosecutions often hinge on a master narrative that centers on the stock character of the violent criminal. In this narrative, “individual lawbreakers are seen as the primary or exclusive causal locus of criminal behavior; they alone are responsible for their actions and, collectively, for the overall magnitude of the ‘crime problem.’”<sup>145</sup> The law-breaker is viewed as making “entirely free choices” and making them “willfully and selfishly . . . despite the perpetrators’ full knowledge of their hurtful consequences.” As a result, the criminal’s behavior is “a reflection of the inherent ‘badness’ of those who engage in it.”<sup>146</sup>

Confronted with this stock character, criminal defense attorneys often try to open up the lens or extend the timeline to look at the defendant’s life story beyond the defendant’s criminal acts. But at least some mitigation testimony may be harmful: “traditional mitigation narratives about defendants’ dysfunctional family lives may reinforce jurors’ racial prejudices, undermine defense attempts to create juror empathy for capital defendants who happen to be black, and ultimately increase the likelihood of death sentences against such defendants.”<sup>147</sup> The schema that white

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<sup>143</sup> Kang, *supra* note 17, at 1502.

<sup>144</sup> Wilkins, *supra* note 141, at 349–58.

<sup>145</sup> *Id.* at 336.

<sup>146</sup> *Id.* at 336 (quoting Craig Haney, *On Mitigation as Counter-Narrative: A Case Study of the Hidden Context of Prison Violence*, 77 UMKC L. REV. 911, 914 (2009)).

<sup>147</sup> *Id.* at 346 (citing Alycee Lane, “Hang Them if They Have to Be Hung”:

jurors construct for the “black family” may include expectations of poverty, abuse, neglect, and other pathology. If that schema is already in the jurors’ heads, then the defendant’s life in such an environment does not help the jury to understand the trouble at the story’s core: it’s just another stock script.<sup>148</sup>

Professor Wilkins offers examples of different means for countering implicit biases, drawing on the opening and closing statements during the penalty phase of the trial of Alan Quinones after he had been convicted of racketeering, drug trafficking, and the murder of a confidential informant.<sup>149</sup> The evidence suggested that Quinones was a “relatively large scale dealer of cocaine and heroin” and that Quinones had spent some time looking for the informant and threatening to kill him.<sup>150</sup> According to Professor Wilkins, the defense attorney was able to counter the violent criminal schemas in play by (1) his use of an initial metaphor (child of God) to “prime” the jurors to consider fairness and equity;<sup>151</sup> (2) his presentation of Quinones as a counter-stereotypical exemplar;<sup>152</sup> and (3) his invocation of competing role schemas, depicting Quinones as a protective father figure and a first-generation immigrant.<sup>153</sup>

The lawyer’s use of the father-and-protector schema is an example of a novel characterization. That is, the father-and-protector schema already exists, but it is not typically applied to violent criminals. The metaphor-processing research discussed earlier suggests that when confronted with this novel characterization, a juror might try to match up the characteristics of the defendant with the characteristics of a protective father. If the juror finds initial matches in literal similarities between the features of the defendant and those of a protective father, other favorable characteristics of the protective father might transfer as well. In other words, the defendant would benefit from helpful

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*Mitigation Discourse, Black Families, and Racial Stereotypes*, 12 NEW CRIM. L. REV. 171, 188–92 (2009)).

<sup>148</sup> *Id.* at 347–48.

<sup>149</sup> *Id.* at 349–58.

<sup>150</sup> *Id.* at 350.

<sup>151</sup> *Id.* at 351–52.

<sup>152</sup> *Id.* at 352–53.

<sup>153</sup> *Id.* at 353–58.

inferences provided by the protective-father schema. The protective-father schema adds to the juror's perspective of the defendant the knowledge that protective fathers will use whatever methods they have available.<sup>154</sup> Within this schema, even unlawful activity may be seen as understandable and deserving of respect.<sup>155</sup>

As already noted, in this example, the novel characterization is used to provide the decision maker with a new perspective (rather than with new information). By encouraging the decision maker to look beyond the most immediately accessible framework to knowledge that might be derived from alternative schemas, the novel characterization is designed to shift or broaden the decision maker's view of the same information.

*B. Using Novel Metaphors to Prompt More Reflective Comparison and Counteract Automatic Categorization*

The use of a conventional metaphor is thought to impose the structure of the source onto the target. Once the target has been fit into the appropriate metaphorical category, mapping focuses a spotlight on some aspects of a concept, reflects other aspects, and eclipses still others.<sup>156</sup> Metaphor carries over from the source to the target attributes, inferences, frameworks, reasoning methods, and evaluation standards.<sup>157</sup>

In the following example, drawn from the briefs filed in *Nike, Inc. v. Kasky*,<sup>158</sup> the conventional metaphor is *the corporation is a person*. This metaphor has become so conventional that it goes unnoticed. For example, Justice Stevens automatically referred to the corporation being sued as having human qualities: Nike was *besieged* with allegations; Nike was *participating* in a public

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<sup>154</sup> *Id.* at 356–57.

<sup>155</sup> *Id.* at 357.

<sup>156</sup> For the metaphor-as-interaction perspective that an entire system of features and relationships associated with the source is used to filter or screen or organize our conception or perspective of some other system, see BLACK, *supra* note 31, at 39–45.

<sup>157</sup> LAKOFF & JOHNSON, METAPHORS, *supra* note 2, at 33. The use of metaphor can help the writer persuade the reader to “make the leap” and to do it “in such a way as to make it seem graceful, compelling, even obvious.” *Id.*

<sup>158</sup> 539 U.S. 654 (2003).

debate about Nike as a good corporate *citizen*.<sup>159</sup> Based on the analogy research cited earlier, this reference indicates that the metaphor was automatically and unconsciously processed and that the entity of the corporation was simply fit into the category of persons, with all the ensuing implications.

In the lawsuit originally filed as *Kasky v. Nike*, a critic of Nike's labor practices in foreign countries sued Nike under California statutes that allow private lawsuits to enforce prohibitions against false advertising and unfair competition.<sup>160</sup> Plaintiff Marc Kasky alleged that "Nike, for the purpose of inducing consumers to buy its products, made false representations of fact about the conditions under which they are made."<sup>161</sup> Nike responded that the First Amendment protected Nike's communications because they were part of a debate about a public issue.<sup>162</sup> The lower courts agreed and dismissed the lawsuit, but the California Supreme Court reversed on the grounds that Nike's representations were commercial speech and thus subject to regulation.<sup>163</sup> After the U.S. Supreme Court granted certiorari, thirty-four briefs (including thirty-one amicus briefs) were filed and oral arguments were heard. A few months later, the Court dismissed the writ as improvidently granted.<sup>164</sup> In a subsequent settlement, Nike agreed to pay \$1.5 million to a consumer advocacy group.<sup>165</sup>

In the briefs they filed, both sides in the dispute assumed that Nike was the kind of speaker whose representations might be protected by the First Amendment. Nike and its supporters projected as the governing image of the lawsuit an attempt by the plaintiff to hobble one speaker in a public debate: the briefs even raised concerns that Nike would be placed on an unequal footing

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<sup>159</sup> *Id.* at 656–57 (Stevens, J., concurring in order dismissing cert).

<sup>160</sup> CAL. BUS. & PROF. CODE ANN. §§ 17200, 17500 (West 2012).

<sup>161</sup> Brief for Respondent at 1, *Nike, Inc. v. Kasky*, 539 U.S. 654 (2003) (No. 02-575), 2003 WL 1844849.

<sup>162</sup> *Kasky v. Nike, Inc.*, 119 Cal. Rptr. 2d 296, 301 (2002).

<sup>163</sup> *Id.* at 300.

<sup>164</sup> *Kasky*, 539 U.S. at 657.

<sup>165</sup> Lisa Girion, *Nike Settles Lawsuit over Labor Claims: The Company Will Pay \$1.5 Million in a Case that Used California Law to Contest the Firm's Statements*, L.A. TIMES, Sept. 13, 2003, at C1.

with its critics. Nike's personhood was used to obscure any distinction between the corporation and any other speaker.<sup>166</sup>

The attorneys representing Kasky did not try to displace the *corporation-is-a-person* metaphor. That acceptance seemingly made it difficult to argue that Nike was distinguishable from other competitors in the marketplace of ideas or other participants in a debate.<sup>167</sup> Through its use of a novel metaphor, the plaintiff might have paved the way for an argument that the advertising and public relations products that Nike manufactures, distributes, and sells are not speech at all. For example, one amicus brief set out the novel characterization (that is, a familiar characterization, but one that was new in this context) that Nike should be viewed as a manufacturer of products even when the product is speech. These amicus brief lawyers suggested that Nike's corporate public relations products should be seen "as" manufactured images, marketing tools, and cultivated commodities. Rather than Nike being engaged in speech, this brief described Nike as "engaged in a publicity campaign."<sup>168</sup> The brief continued to use metaphors from activities other than speaking: "Nike Has Manufactured An Image of Social Responsibility As A Means of Promoting Product Sales"; "Image Promotion Is An Essential Aspect Of Product Promotion"; and "Nike Has Cultivated A Corporate Image Of Social Progressivity As A Marketing Tool To Promote Product Sales."<sup>169</sup>

According to the analogy research, the use of this novel metaphor might lead to more reflective decision making (rather than more automatic categorization). That is, if the audience is able to align the characteristics and relationships associated with manufacturers and products with those associated with Nike and its public relations campaign, the audience might also project inferences from manufacturing to public relations. Once Nike's representations are viewed as cars or shoes, the projected

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<sup>166</sup> See Berger, *What is the Sound of a Corporation Speaking?*, *supra* note 103, at 192–96 (describing briefs depicting Nike "as" other protected speakers, including the founding fathers, the NAACP, and labor union organizers).

<sup>167</sup> See *id.* at 195–96 for a discussion of briefs depicting Nike as a participant in a public debate.

<sup>168</sup> Brief of Amici Curiae the States of California et al. at 2, Nike, Inc., v. Kasky, 539 U.S. 654 (2003) (No. 02-575), 2003 WL 1844750.

<sup>169</sup> *Id.* at 5–9.

inferences suggest that they can be seen “as” part of a process that involves no First Amendment values at all. Instead, the public relations products that Nike manufactures and disseminates are like any other product the corporation makes. Like any other product, these products are made by corporate employees who are responding to corporate designs and directions; the content of the product is influenced not by self-expression or enhancement of knowledge but instead by sales potential. Therefore, like any other product, their manufacture, distribution, and sale should be subject to state regulation to protect the public.<sup>170</sup>

In this example, the novel metaphor (Nike’s representations are products) is used to prompt more reflective thinking in an effort to counter the automatic process of categorization (Nike is a person). Thus, the novel metaphor is designed to persuade the decision maker to more actively compare the features and relationships of the source and target domains, leading to a more desirable persuasive outcome.

*C. Using a Novel Characterization to Activate the More Persuasive Knowledge Structure Provided by a Master Story*<sup>171</sup>

In addition to prompting an audience to consider the perspective of an alternative schema or to engage in more reflective comparison, novel characterizations and metaphors may be used to activate related knowledge structures. In the following example, the Supreme Court’s use of a novel characterization activated the persuasive master story provided by a canonical opinion, *Brown v. Board of Education*.<sup>172</sup>

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<sup>170</sup> Berger, *What is the Sound of a Corporation Speaking?*, *supra* note 103, at 206.

<sup>171</sup> See Michael Goldberg, *Against Acting “Humanely,”* 58 MERCER L. REV. 899, 905 (2007). Goldberg uses the term “master story” for stories that “serve as the template for understanding the world and as the tutor for acting in it.” *Id.*

<sup>172</sup> 347 U.S. 483 (1954). See Robert L. Tsai, *Sacred Visions of Law*, 90 IOWA L. REV. 1095 (2005) for a discussion of what he calls the “constitutional iconography” of cases such as *Brown*. See also Jack M. Balkin, *Brown v. Board of Education: A Critical Introduction*, in WHAT BROWN V. BOARD OF



Applied to human beings, the label “illegal” is a destructive characterization that results in people being “seen as” a status they acquired at one moment in time.<sup>173</sup> In *Plyler v. Doe*<sup>174</sup> and a companion case, *In re Alien Children Education Litigation*,<sup>175</sup> the U.S. Supreme Court for the first time explicitly ruled that unauthorized immigrants were entitled to equal protection under the Fourteenth Amendment.<sup>176</sup> In both cases, the plaintiffs challenged a Texas statute that allowed the state to withhold its funds for the education of children who were unauthorized immigrants. The Texas Legislature had enacted Section 21.031 of its Education Code in 1975, allowing the state to withhold any state funds for the education of children who were not “legally admitted” into the United States and authorizing local school districts to deny enrollment in their public schools to children not “legally admitted” into the country.<sup>177</sup>

When the cases were decided in the Supreme Court, a 5-4 majority found that undocumented immigrants and their children were “persons within the jurisdiction of the state” and thus entitled

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EDUCATION SHOULD HAVE SAID: THE NATION’S TOP LEGAL EXPERTS REWRITE AMERICA’S LANDMARK CIVIL RIGHTS DECISION 31, 31–62 (Jack M. Balkin ed., 2005).

<sup>173</sup> See Fatma E. Marouf, *Regrouping America: Immigration Policies and the Reduction of Prejudice*, 15 HARV. LATINO L. REV. 129, 169–70 (2012) (noting that government programs and policies continue to make illegality “the dominant characteristic that defines millions of undocumented immigrants”). This single “snapshot in time” event becomes a permanent image that overrides the many other characteristics of the humans included within the group. *Id.*

<sup>174</sup> *Plyler v. Doe*, 457 U.S. 202 (1982), began as *Doe v. Plyler*, 458 F. Supp. 569 (E.D. Tex. 1978), *aff’d* 628 F.2d 448 (5th Cir. 1980).

<sup>175</sup> *In re Alien Children Education Litigation*, 501 F. Supp. 544 (S.D. Tex. 1980). The second case was summarily affirmed by the Court of Appeals for the Fifth Circuit.

<sup>176</sup> *Plyler*, 457 U.S. at 215 (“[T]he protection of the Fourteenth Amendment extends to anyone, citizen or stranger, who is subject to the laws of a State. . . . That a person’s initial entry into a State, or into the United States, was unlawful . . . cannot negate the simple fact of his presence within the State’s territorial perimeter.”). See also Hiroshi Motomura, *Immigration Outside the Law*, 108 COLUM. L. REV. 2037 (2008) (examining the significance of the meaning of unlawful presence in *Plyler*).

<sup>177</sup> *Plyler*, 457 U.S. at 205 (citing TEX. EDUC. CODE ANN. § 21.031 (Vernon Supp. 1981)).

to equal protection through the Fourteenth Amendment.<sup>178</sup> Further, the Court held that Texas could not “deny to undocumented school-age children the free public education that it provides to children who are citizens of the United States or legally admitted aliens.”<sup>179</sup>

In its briefs, Texas argued that the only justification the state needed for the statute was the characterization that the plaintiff children were themselves “illegal.”<sup>180</sup> According to the Texas briefs, all children of school age must fall into one of only two categories, legal or illegal, and the State had a responsibility to conserve its resources for the education of “legal” children.<sup>181</sup> After arguing that the equal protection clause did not apply to “illegal” immigrants at all, Texas went on to try to justify the statute on the basis of two rationales: the need to preserve scarce resources for the education of legal children and the need to discourage illegal immigration.<sup>182</sup> The dissenting opinion in the Supreme Court agreed with Texas that the distinction between “illegal” and “legal” children was dispositive: it was a legitimate ground in itself for determining whose education was funded and whose was not.<sup>183</sup>

For the majority, the critical point was the factual finding that many of the affected children would become permanent residents of the United States.<sup>184</sup> As the trial court put it, “the illegal alien of

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<sup>178</sup> *Id.* at 210.

<sup>179</sup> *Id.* at 205, 230.

<sup>180</sup> See Brief for Appellants at 13–14, *In re Alien Children Litigation*, 457 U.S. 202 (1982) (Nos. 80-1538, 80-1934), 1981 WL 389967.

<sup>181</sup> *Id.*

<sup>182</sup> *Id.*

<sup>183</sup> *Plyler*, 457 U.S. at 243–44 (Burger, J., dissenting) (the question is whether “a state has a legitimate reason to differentiate between persons who are lawfully within the state and those who are unlawfully there”).

<sup>184</sup> *Id.* at 207 (relying on the finding of the District Court that the impact of the statute would fall primarily on a very small subclass, “entire families who have migrated illegally and—for all practical purposes—permanently to the United States.”). The District Court in the *Alien Children Education* case found as a factual matter that a significant number of illegal aliens will remain in this country permanently, 501 F. Supp. at 558–59; that some of the children involved in this litigation are “documentable,” *id.* at 573; and that “[m]any of the undocumented children are not deportable. None of the named plaintiffs is under

today may well be the legal alien of tomorrow.”<sup>185</sup> Without an education, the affected children “[a]lready disadvantaged as a result of poverty, lack of English-speaking ability, and undeniable racial prejudices, . . . will become permanently locked into the lowest socio-economic class.”<sup>186</sup> For the majority, the problem with the statute was captured in this conclusion: allowing the statute to be enforced would lead to a “permanent caste of undocumented resident aliens.”<sup>187</sup> The Court’s solution incorporated a novel characterization—that the plaintiff children, despite their lack of documents, are *permanent residents*—and triggered a master story—that *education allows all Americans to pursue equality and avoid a caste system*.

Before establishing the novel characterization, the majority criticized government policies and programs that had resulted in the “creation of a substantial ‘shadow population’ of illegal migrants—numbering in the millions—within our borders.”<sup>188</sup> But the problem with the Texas statute was not that so many lived in the shadows; instead, it was that the few immigrants affected by this statute—families with children—were likely to remain permanently within the United States. If they did remain permanently, and if they also remained uneducated, the Texas policy would “raise[] the specter of a permanent caste of undocumented resident aliens,” with the plaintiff children being especially innocent members of this underclass.<sup>189</sup>

This characterization of immigrant children as *permanent residents*—no matter what their citizenship status—served as a prime or stimulus for another schema, one that amounted to a master story: the story of *Brown v. Board of Education*.<sup>190</sup> The decision in *Brown*, said the majority opinion, symbolized the core purpose of the equal protection clause: to abolish “governmental

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an order of deportation,” *id.* at 583 n.103.

<sup>185</sup> *Plyler*, 457 U.S. at 207–08 (quoting *Doe v. Plyer*, 458 F. Supp. 569, 577 (E.D. Texas 1978)).

<sup>186</sup> *Id.* (quoting *Doe*, 458 F. Supp. at 577).

<sup>187</sup> *Id.* at 218–19 (quoting *Doe*, 458 F. Supp. at 577).

<sup>188</sup> *Id.* at 218 (citation omitted).

<sup>189</sup> *Id.* at 218–19 (quoting *Doe*, 458 F. Supp. at 585).

<sup>190</sup> 347 U.S. 483 (1954).

barriers . . . to advancement on the basis of individual merit.”<sup>191</sup> Moreover, *Brown* underscored that education is critical to becoming American (“required in the performance of our most basic public responsibilities [and] the very foundation of good citizenship”) and to having an equal chance of success as an American.<sup>192</sup> Justice Brennan relied as well on the *Brown* Court’s conclusion that “it is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity of an education. Such an opportunity, where the state has undertaken to provide it, is a right which must be made available to all on equal terms.”<sup>193</sup> Because many of the children “disabled” by being labeled illegal will remain in the United States, and “some will become lawful residents or citizens,” Justice Brennan wrote for the majority that “[i]t is difficult to understand precisely what the State hopes to achieve by promoting the creation and perpetuation of a subclass of illiterates within our boundaries, surely adding to the problems and costs of unemployment, welfare, and crime.”<sup>194</sup>

If the characterization of the children as *permanent residents* works in the same way as a novel metaphor, it may be able to shift the audience’s perspective from the conventional categorization that Texas advanced: that immigrants must be either legal or illegal. The *permanent resident* characterization provides an alternative and possibly relevant analog or schema to be accessed from memory. If the reader can identify matches between the characteristics and relationships of the source, permanent resident, and those of the target, immigrant children, she may be able to align the target with the source. Then, inferences derived from the source may be transferred to the target, creating new information

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<sup>191</sup> *Plyler*, 457 U.S. at 221–22.

<sup>192</sup> *Id.* at 223. Even though education had not been found to be a fundamental right, Justice Brennan pointed to “the importance of education in maintaining our basic institutions, and the lasting impact of its deprivation on the life of the child”; education’s fundamental role in maintaining the fabric of society; the pivotal role of education in sustaining our political and cultural heritage; and education’s role in preparing “individuals to be self-reliant and self-sufficient participants in society.” *Id.* at 221–22.

<sup>193</sup> *Id.* at 223 (quoting *Brown v. Bd. of Educ. of Topeka*, 347 U.S. 483, 493 (1954)).

<sup>194</sup> *Id.* at 230.

that helps fill in the blanks or connect the dots.<sup>195</sup>

The briefs and opinions illustrated that immigrant children might be “seen as” *illegal* or they might be “seen as” *permanent residents*. By encouraging the reader to view the children through the schema for permanent residents, Justice Brennan was able to cast the children as characters in the story of how equal access to education will transform America into a land of equal opportunity.

In contrast to this use of a novel characterization, the interplay of larger perspectives with conventional metaphorical categories may be seen in another immigration decision<sup>196</sup> 30 years later. In that decision, the Supreme Court upheld federal power to regulate immigration and struck down major portions of an Arizona statute that had been called the nation’s toughest law on immigration when it was enacted in 2010.<sup>197</sup> In his opinion for the majority, Justice Anthony Kennedy described the United States as a nation of immigrants and characterized the power of the “Government of the United States” with regard to immigration as “broad [and] undoubted,” resting not only on the Constitution but also on the inherent power of a national sovereign to conduct relations with foreign nations.<sup>198</sup> He depicted a national government that exercises its significant power with restraint and discretion. This characterization of the national government, its power to conduct relations with foreign nations, and its restraint is the lens through which Arizona’s law may be seen as undermining federal law. From a larger perspective, Justice Kennedy viewed the United States as a member of the international community of nations.<sup>199</sup> Considering these characterizations and this perspective, an audience might re-align its patterns of thought even if Justice Kennedy did not explicitly state the proposition that *only* the national sovereign should control and conduct relations with foreign nations.

In contrast, in his opinion concurring in part and dissenting in

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<sup>195</sup> See *supra* Part III.A.

<sup>196</sup> *Arizona v. United States*, 132 S. Ct. 2492 (2012).

<sup>197</sup> See Randal C. Archibold, *Arizona Enacts Stringent Law on Immigration*, N.Y. TIMES (Apr. 23, 2010), <http://www.nytimes.com/2010/04/24/us/politics/24immig.html>.

<sup>198</sup> *Arizona*, 132 S. Ct. at 2498.

<sup>199</sup> *Id.* at 2498–50.

part, Justice Antonin Scalia proposed the conventional metaphor that “[t]he United States is an indivisible ‘Union of sovereign States.’”<sup>200</sup> And he wrote that the majority opinion deprived the states “of what most would consider the defining characteristic of sovereignty: the power to exclude from the sovereign’s territory people who have no right to be there.”<sup>201</sup> These conventional metaphors and characterizations accord prominence and centrality to the sovereign character of the states, and they make the central feature of sovereignty the power “to forbid the entrance of foreigners . . . .”<sup>202</sup> If Justice Scalia’s characterizations and metaphors work in the way that the research suggests for processing of conventional metaphors, the reader will automatically categorize Arizona’s legislation as warranted.

To sum up, these immigration examples illustrate how novel characterizations and conventional metaphors may be used to achieve different goals in legal persuasion. The novel characterization (immigrant children as *permanent residents*) allowed the author to construct a bridge to a persuasive master story (equal access to education is necessary for equal opportunity to succeed) while the conventional metaphor (immigrant children as *illegal*) provided a category for automatic disposition without further reflection. Similarly, Justice Kennedy’s international community perspective may prompt the reader to more deliberately consider the categorical understanding of sovereignty as the power to exclude.

## CONCLUSION

Better understanding of the thinking and decision-making processes of judges and juries should help lawyers make more informed and deliberate choices about persuasion.<sup>203</sup> Recent

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<sup>200</sup> *Id.* at 2511 (Scalia, J., concurring in part and dissenting in part) (quoting *Hinderlider v. La Plata River & Cherry Creek Ditch Co.*, 304 U.S. 92, 104 (1938)).

<sup>201</sup> *Id.*

<sup>202</sup> *Id.* at 2514 (quoting *Fong Yue Ting v. United States*, 149 U.S. 698, 705 (1893)) (internal quotation marks omitted).

<sup>203</sup> See generally JENNIFER K. ROBBENOLT & JEAN R. STERNLIGHT, *PSYCHOLOGY FOR LAWYERS: UNDERSTANDING THE HUMAN FACTORS IN*

research may help lawyers take advantage of the insight that the same schematic cognition process that leads us to assign negative characteristics to stereotypes may also allow us to see a violent criminal as a protective father or an illegal immigrant as a permanent resident.<sup>204</sup>

This Article suggests that lawyers should turn to novel characterizations and metaphors to address one of the persuasion problems created by the confluence of System 1 and System 2 thinking. Many cognitive scientists agree that our perception and interpretation follow the process described as schematic cognition: in other words, we analogize new information we encounter to schemas and knowledge structures embedded in memory. The decision-making research also is in agreement about some things: in System 1 decision making, only the most accessible knowledge structures are active, and the answer to how to think about and what to do with the new information is automatic and intuitive. Adding current analogy research to the mix suggests that novel metaphors and characterizations may be used to prompt a decision maker's intuition to activate various schemas or knowledge structures beyond those that are immediately accessible.<sup>205</sup> The resulting online processing of the novel metaphor or characterization resembles the more reflective decision making of System 2. In situations where the immediately accessible schema yields an unfavorable answer, prompting the decision maker to take the more reflective route opens the way to a potentially persuasive result.

Recommending novel metaphors and characterizations is not the same thing as recommending that more information be provided to counter negative stereotypes and expand conventional

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NEGOTIATION, LITIGATION, AND DECISION MAKING (2012) (suggesting ways that psychological findings apply across a spectrum of lawyering roles and tasks); Kathryn M. Stanchi, *The Science of Persuasion: An Initial Exploration*, 2006 MICH. ST. L. REV. 411 (applying social science data about decision making to the study of legal advocacy writing).

<sup>204</sup> See *supra* Part III.C.

<sup>205</sup> A similar argument for reducing group bias suggests that the salience or the relevance of conventional categories may be undermined through cross categorization or "eliciting multiple, unrelated group identities." Marouf, *supra* note 17, at 168–81.

categories: the shift being sought through a novel metaphor or characterization is not a change in *what* the audience perceives but in *how* the audience sees and interprets it. After their review of schema theory, authors Chen and Hanson concluded that three conditions must coincide to nudge an audience away from its tendency to automatically and unconsciously adopt the most available or active schema or category: “Only when the evidence available to us is (1) relevant and (2) inconsistent with our schema, and only when (3) we are otherwise not too cognitively busy, is there any potential that our schemas and their biasing effects will be challenged.”<sup>206</sup>

Yet these authors find room for persuasion within the social cognition research. In many circumstances, they say, audience members show some flexibility in choosing among schemas, a flexibility that can be affected “by factors such as language, primacy, salience, and priming.”<sup>207</sup> The use of analogies and metaphors may help an audience activate and analyze some categories and schemas rather than others.<sup>208</sup> The use of novel characterizations and metaphors may be an effective way to suggest to decision makers that individuals and circumstances often fit into more than one framework and that they should more fully consider a more complicated reality.

As language theorists have written, there may be more effective “ways of changing someone’s mind than changing his or her beliefs.”<sup>209</sup> When we are engaged in legal persuasion, what we are after is not so much different beliefs, but “changes in the associations and comparisons one makes, differences in the vivid or ‘felt’ appreciation of something already known, or changes in one’s habits of attention and sense of the important and the trifling.”<sup>210</sup> Such changes and differences may fall within the power of novel metaphors and characterizations.<sup>211</sup>

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<sup>206</sup> Chen & Hanson, *supra* note 13, at 1230 (alteration in original).

<sup>207</sup> *Id.* at 1241.

<sup>208</sup> *Id.*

<sup>209</sup> Richard Moran, *Seeing and Believing: Metaphor, Image, and Force*, 16 CRITICAL INQUIRY 87, 100 (1989).

<sup>210</sup> *Id.*

<sup>211</sup> See Paul Ricoeur, *The Metaphorical Process as Cognition, Imagination, and Feeling*, 5 CRITICAL INQUIRY 143, 143 (1978).